

| Sr. No. | TITLE \& NAME OF THE AUTHOR (S) | Page No. |
| :---: | :---: | :---: |
| 1. | ETHICS AND IT- UNSOLVED ISSUES OF ONLINE BASED BANKING DR. V V R RAMAN \& DR. VEENA TEWARI | 6 |
| 2. | PETROLEUM PROFIT TAX AND NIGERIA ECONOMIC DEVELOPMENT ADEGBIE, FOLAJIMI FESTUS \& FAKILE, ADENIRAN SAMUEL | 11 |
| 3. | WOMEN ECONOMIC EMPOWERMENT THROUGH SELF HELP GROUPS: A STUDY IN ANDHRA PRADESH DR. B. V. PRASADA RAO, S. R. PDALA \& DR. NEDURI SURYANARAYANA | 19 |
| 4. | THE ROLE OF CELEBRITY ADVERTISING ON BRAND PREFERENCE OKORIE NELSON \& ADEYEMI ADEROGBA | 27 |
| 5. | WOMEN BUILDING BUSINESSES IN A MAN'S WORLD - THE SAGA OF WOMEN ENTREPRENEURSHIP J. EDUKONDALA RAO | 34 |
| 6. | COMMUNITY DEVELOPMENT INITIATIVES IN ENGINEERING COLLEGES IN BENGALURU, INDIA PROF. B.N.BALAJI SINGH | 38 |
| 7. | BANKING ON IT: PROBLEMS AND PROSPECTS IN STATE BANK OF INDIA TIMIRA SHUKLA \& ANITA SINGH | 45 |
| 8. | BUSINESS RISK ANALYSIS THROUGH GINNI'S COEFFICIENT: A STUDY OF SELECT IT COMPANIES IN INDIA DR. DEBASISH SUR \& DR. SUSANTA MITRA | 49 |
| 9. | EMOTIONAL COMPETENCY CLUSTERS AND STAR PERFORMER IN SOFTWARE PROJECT TEAM DR. A VELAYUDHAN, DR. S GAYATRIDEVI \& MS. S. SRIVIDYA | 56 |
| 10. | IMPACT OF FLEXI-TIME (A WORK-LIFE BALANCE PRACTICE) ON EMPLOYEE PERFORMANCE IN INDIAN IT SECTOR DR. S. SUMAN BABU, DR. U. DEVI PRASAD, FAKHRUDDIN SHEIK \& K. BHAVANA RAJ | 65 |
| 11. | TRIPS, TECHNOLOGY AND EXPORTS: EVIDENCE FROM THE INDIAN PHARMACEUTICAL INDUSTRY MADHUR MOHIT MAHAJAN | 72 |
| 12. | CORPORATE SOCIAL RESPONSIBILITY (CSR) OF A TOBACCO COMPANY: A PARADIGM PERSPECTIVE OF AN EXCLUSIVE CASE <br> DR. S. P. RATH, PROF. BISWAJIT DAS \& PROF. RAKESH KATYAYANI | 79 |
| 13. | REFLECTIONS OF SELF HELP GROUPS AND THEIR MAMMOTH GROWTH IN THE STATE OF TAMILNADU, INDIA R. LAKSHMI \& PROF. DR. G. VADIVALAGAN | 85 |
| 14. | CONSUMERS' PERCEPTION ON MATCHING QUALITY OF CELEBRITY AND BRAND FEATURES IN ADVERTISEMENT DR. P. RAJA, PROF. (DR.) R. ARASU \& D. KARTHIK | 88 |
| 15. | ROLE OF THE URBAN COOPERATIVE BANKS IN THE AFTERMATH OF GLOBAL FINANCIAL CRISIS: A STUDY WITH REFERENCE TO VELLORE DISTRICT <br> E. GNANASEKARAN \& PROF. (DR.) M. ANBALAGAN | 92 |
| 16. | RISK ASSESSMENT OF DEFAULT BEHAVIOUR OF HOUSING LOANS OF A PUBLIC SECTOR BANK (AN EMPIRICAL STUDY) SHUBHA B. N \& DR. (MRS.) S. GOMATHI | 102 |
| 17. | DYNAMICS OF IPO - A STUDY WITH REFERENCE TO SELECTED CORPORATE SECTORS DR. P. NATARAJAN \& S. BALAJI | 106 |
| 18. | RETURN - BASED PERFORMANCE ANALYSIS OF SELECTED EQUITY MUTUAL FUNDS SCHEMES IN INDIA - AN EMPIRICAL STUDY <br> DR. R. SHANMUGHAM \& ZABIULLA | 113 |
| 19. | A STUDY ON PROBLEMS AND PROSPECTS OF EXPORTING INDIAN HIGHER EDUCATIONAL SERVICES DR. SHEELAN MISRA | 120 |
| 20 | PERFORMANCE APPRAISAL OF CENTRAL COOPERATIVE BANKS IN INDIA IN LIBERAL ECONOMIC SCENARIO DR. SUBRATA MUKHERJEE \& DR. SAMIR GHOSH | 127 |
| 21 | ROLE OF INFLATION IN INVESTMENT DECISIONS - AN ANALYTICAL STUDY DR. SAMBHAV GARG | 134 |
| 22 | EMPOWERMENT OF WOMEN IN GADAG DISTRICT- A STUDY OF SELF HELP GROUPS ENTREPRENEURS DR. A. S. SHIRALASHETTI | 138 |
| 23 | AN EVALUATION OF COOPERATIVE SOCIETIES FINANCED BY ICDP IN HIMACHAL PRADESH - A STUDY OF KULLU DISTRICT <br> DR. GAGAN SINGH \& MAST RAM | 145 |
| 24 | MANAGEMENT OF DETERMINANTS OF WORKING CAPITAL - AN UPHILL TASK BHAVET | 153 |
| 25 | DEPOSIT MOBILIZATION IN ICICI AND SBI BANKS IN INDIA ESHA SHARMA | 157 |
|  | REQUEST FOR FEEDBACK | 162 |

[^0]
## CHIEF PATRON

PROF. K. K. AGGARWAL

Chancellor, Lingaya's University, Delhi
Founder Vice-Chancellor, Guru Gobind Singh Indraprastha University, Delhi
Ex. Pro Vice-Chancellor, Guru Jambheshwar University, Hisar

## PATRON

SH. RAM BHAJAN AGGARWAL
Ex. State Minister for Home \& Tourism, Government of Haryana
Vice-President, Dadri Education Society, Charkhi Dadri President, Chinar Syntex Ltd. (Textile Mills), Bhiwani

## CO-ORDINATOR

BHAVET
Lecturer, M. M. Institute of Management, Maharishi Markandeshwar University, Mullana

## ADVISORS

PROF. M. S. SENAM RAJU
Director A. C. D., School of Management Studies, I.G.N.O.U., New Delhi
PROF. M. N. SHARMA
Chairman, M.B.A., Haryana College of Technology \& Management, Kaithal
PROF. S. L. MAHANDRU
Principal (Retd.), Maharaja Agrasen College, Jagadhri

## EDITOR

PROF. R. K. SHARMA
Dean (Academics), Tecnia Institute of Advanced Studies, Delhi

## CO-EDITORS

DR. SAMBHAV GARG
Faculty, M. M. Institute of Management, Maharishi Markandeshwar University, Mullana, Ambala, Haryana

## EDITORIAL ADVISORXBOARD

DR. AMBIKA ZUTSHI
Faculty, School of Management \& Marketing, Deakin University, Australia
DR. VIVEK NATRAJAN
Faculty, Lomar University, U.S.A.
PROF. PARVEEN KUMAR
Director, M.C.A., Meerut Institute of Engineering \& Technology, Meerut, U. P.
PROF. H. R. SHARMA
Director, Chhatarpati Shivaji Institute of Technology, Durg, C.G.
PROF. MANOHAR LAL
Director \& Chairman, School of Information \& Computer Sciences, I.G.N.O.U., New Delhi
PROF. ANIL K. SAINI
Chairperson (CRC), Guru Gobind Singh I. P. University, Delhi
PROF. SANJIV MITTAL
University School of Management Studies, Guru Gobind Singh I. P. University, Delhi
PROF. SATISH KUMAR
Director, Vidya School of Business, Meerut, U.P.
PROF. ROSHAN LAL
Head \& Convener Ph. D. Programme, M. M. Institute of Management, M. M. University, Mullana DR. ASHWANI KUSH
Head, Computer Science, University College, Kurukshetra University, Kurukshetra DR. BHARAT BHUSHAN
Head, Department of Computer Science \& Applications, Guru Nanak Khalsa College, Yamunanagar
DR. VIJAYPAL SINGH DHAKA
Head, Department of Computer Applications, Institute of Management Studies, Noida, U.P.
DR. KULBHUSHAN CHANDEL

Reader, Himachal Pradesh University, Shimla, Himachal Pradesh
DR. ASHOK KUMAR CHAUHAN
Reader, Department of Economics, Kurukshetra University, Kurukshetra
DR. SAMBHAVNA
Faculty, I.I.T.M., Delhi

```
                        DR. MOHINDER CHAND
                                    Associate Professor, Kurukshetra University, Kurukshetra
                            DR. MOHENDER KUMAR GUPTA
Associate Professor, P. J. L. N. Government College, Faridabad
                    DR. VIVEK CHAWLA
        Associate Professor, Kurukshetra University, Kurukshetra
                    DR. VIKAS CHOUDHARY
                            Asst. Professor, N.I.T. (University), Kurukshetra
                    DR. SAMBHAV GARG
    Faculty, M. M. Institute of Management, Maharishi Markandeshwar University, Mullana, Ambala, Haryana
```


## ASSOCLATE EDITORS

```
PROF. NAWAB ALI KHAN
Department of Commerce, Aligarh Muslim University, Aligarh, U.P. PROF. ABHAY BANSAL
Head, Department of Information Technology, Amity School of Engineering \& Technology, Amity University, Noida DR. ASHOK KUMAR
Head, Department of Electronics, D. A. V. College (Lahore), Ambala City DR. ASHISH JOLLY
Head, Computer Department, S. A. Jain Institute of Management \& Technology, Ambala City
DR. PARDEEP AHLAWAT
Reader, Institute of Management Studies \& Research, Maharshi Dayanand University, Rohtak
DR. SHIVAKUMAR DEENE
Asst. Professor, Government F. G. College Chitguppa, Bidar, Karnataka SUNIL KUMAR KARWASRA
Vice-Principal, Defence College of Education, Tohana, Fatehabad PARVEEN KHURANA
Associate Professor, Mukand Lal National College, Yamuna Nagar SHASHI KHURANA
Associate Professor, S. M. S. Khalsa Lubana Girls College, Barara, Ambala ASHISH CHOPRA
Sr. Lecturer, Doon Valley Institute of Engineering \& Technology, Karnal MOHITA
Lecturer, Yamuna Institute of Engineering \& Technology, Village Gadholi, P. O. Gadhola, Yamunanagar SAKET BHARDWAJ
Lecturer, Haryana Engineering College, Jagadhri
```


## TECHFIICAL ADVISORS

```
AMITA
Lecturer, E.C.C., Safidon, Jind MONIKA KHURANA
Associate Professor, Hindu Girls College, Jagadhri
SURUCHI KALRA CHOUDHARY
Head, Department of English, Hindu Girls College, Jagadhri
NARENDERA SINGH KAMRA
Faculty, J.N.V., Pabra, Hisar
```


## FINANCIAL ADVISORS

```
DICKIN GOYAL
Advocate \& Tax Adviser, Panchkula
```


## NEENA

```
Investment Consultant, Chambaghat, Solan, Himachal Pradesh
```


## LEGAL ADVISORS

```
JITENDER S. CHAHAL
Advocate, Punjab \& Haryana High Court, Chandigarh U.T.
CHANDER BHUSHAN SHARMA
Advocate \& Consultant, District Courts, Yamunanagar at Jagadhri
```


## CALL FOR MANUSCRIPTS

We invite unpublished novel, original, empirical and high quality research work pertaining to recent developments \& practices in the area of Computer, Business, Finance, Marketing, Human Resource Management, General Management, Banking, Insurance, Corporate Governance and emerging paradigms in allied subjects. The above mentioned tracks are only indicative, and not exhaustive.

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

## GUIDELINES FOR SUBMISSION OF MANUSCRIPT

## 1. COVERING LETTER FOR SUBMISSION:


#### Abstract

The Editor IJRCM

Subject: Submission of Manuscript in the Area of (Computer/Finance/Marketing/HRM/General Management/other, please specify).

\section*{Dear Sir/Madam,}


Please find my submission of manuscript titled ' $\qquad$ ' for possible publication in your journal.

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

I affirm that all author (s) have seen and agreed to the submitted version of the manuscript and their inclusion of name(s) as co-author(s).
Also, if our/my manuscript is accepted, I/We agree to comply with the formalities as given on the website of journal \& you are free to publish our contribution to any of your two journals i.e. International Journal of Research in Commerce \& Management or International Journal of Research in Computer Application \& Management.

## Name of Corresponding Author:

Designation:

Affiliation:

Mailing address:

Mobile \& Landline Number (s):
E-mail Address (s):
2. INTRODUCTION: Manuscript must be in English prepared on a standard A4 size paper setting. It must be prepared on a single space and single column with $1^{\prime \prime}$ margin set for top, bottom, left and right. It should be typed in 12 point Calibri Font with page numbers at the bottom and centre of the every page.
3. MANUSCRIPT TITLE: The title of the paper should be in a 12 point Calibri Font. It should be bold typed, centered and fully capitalised.
4. AUTHOR NAME(S) \& AFFILIATIONS: The author (s) full name, designation, affiliation (s), address, mobile/landline numbers, and email/alternate email address should be in 12-point Calibri Font. It must be centered underneath the title.
5. ABSTRACT: Abstract should be in fully italicized text, not exceeding 250 words. The abstract must be informative and explain background, aims, methods, results and conclusion.
6. KEYWORDS: Abstract must be followed by list of keywords, subject to the maximum of five. These should be arranged in alphabetic order separated by commas and full stops at the end.
7. HEADINGS: All the headings should be in a 10 point Calibri Font. These must be bold-faced, aligned left and fully capitalised. Leave a blank line before each heading.
8. SUB-HEADINGS: All the sub-headings should be in a 8 point Calibri Font. These must be bold-faced, aligned left and fully capitalised.
9. MAIN TEXT: The main text should be in a 8 point Calibri Font, single spaced and justified.
10. FIGURES \&TABLES: These should be simple, centered, separately numbered \& self explained, and titles must be above the tables/figures. Sources of data should be mentioned below the table/figure. It should be ensured that the tables/figures are referred to from the main text.
11. EQUATIONS: These should be consecutively numbered in parentheses, horizontally centered with equation number placed at the right.
12. REFERENCES: The list of all references should be alphabetically arranged. It must be single spaced, and at the end of the manuscript. The author ( $s$ ) should mention only the actually utilised references in the preparation of manuscript and they are supposed to follow Harvard Style of Referencing. The author (s) are supposed to follow the references as per following:

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


## PLEASE USE THE FOLLOWING FOR STYLE AND PUNCTUATION IN REFERENCES:

## Books

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


## Contributions to books

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


## Journal and other articles

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


## Conference papers

- Chandel K.S. (2009): "Ethics in Commerce Education." Paper presented at the Annual International Conference for the All India Management Association, New Delhi, India, 19-22 June.


## Unpublished dissertations and theses

- Kumar S. (2006): "Customer Value: A Comparative Study of Rural and Urban Customers," Thesis, Kurukshetra University, Kurukshetra.


## Online resources

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


## Website

- Kelkar V. (2009): Towards a New Natural Gas Policy, Economic and Political Weekly, Viewed on February 17, 2011 http://epw.in/epw/user/viewabstract.jsp


# ETHICS AND IT- UNSOLVED ISSUES OF ONLINE BASED BANKING 

DR. V V R RAMAN<br>HEAD (COMPUTER SCIENCE) \& PROGRAMMING OFFICER, FOR THE ASMO<br>DEPARTMENT OF BASIC AND BEHAVIOURAL SCIENCES<br>ASMARA COLLEGE OF HEALTH SCIENCES<br>ASMARA, ERITREA<br>N. E. AFRICA<br>DR. VEENA TEWARI<br>CERTIFIED LEAD AUDITOR FOR ISO 9001:2000 QMS CERTIFICATION LECTURER, DEPARTMENT OF TOURISM AND MARKETING<br>COLLEGE OF BUSINESS AND ECONOMICS<br>HALHALE, ERITREA<br>N. E. AFRICA


#### Abstract

Issues of IT Ethics have recently become immensely more complex. The capacity to place material on the World Wide Web has been acquired by a very large number of people. At the same time, once the initial reluctance to use the Internet and the World Wide Web for commercial purposes had been overcome, sites devoted to doing business on the Internet mushroomed and e-commerce became a term permanently to be considered part of common usage. The assimilation of new technology is almost never smooth. As the Internet begins to grow out of its abbreviated infancy, a multitude of new issues surface continually, and a large proportion of these issues remain unresolved. Many of these issues contain strong ethics content. As the ability to reach millions of people instantly and simultaneously has passed into the hands of the average person, the rapid emergence of thorny ethical issues is likely to continue unabated. In this paper we have paid attention to the very essence of the ethics in economy, and especially in banking. There is an always present dilemma between ethics and economy. Nowadays the attention is much more dedicated to this topic, because the lack of ethics norms in business operations produces great damage at the micro and macro level. More than anything else the significance of ethics becomes apparent through establishing of socially accepted ethical norms, affecting in consequence all aspects of life. In the present study we shall try to explain the business ethics as a social responsibility of an individual as well as of collective moral actions followed during all aspects of business activities up to the point where they do not disturb business relations within the business system, as well as within the wider surroundings.


## KEYWORDS

Business ethics, Ethical principles, Ethical code, Ethics, Issues, Proliferation.

## INTRODUCTION

$\mathfrak{T}$he area of Information Systems (IS) ethics has received, deservedly, a fair amount of attention in recent times. IS Professionals generally agreed that we need adequate ground rules to govern the use of present day Information Technology (IT). We have also recognized for many years the need to incorporate ethics into IS curricula [Couger, 1989, Cohen \& Cornwell, 1989]. Current mechanisms which attempt to make IS professionals and students more sensitive to the ethical concerns within IT and IS may, however, be too tightly focused in terms of both issues and audience, especially in the light of the rapid proliferation of Internet use.
To properly analyze the impact of the Internet on IS ethics; we would need to establish the appropriate context. To this end, this paper explores several aspects of computer ethics that are relevant to today's users of IT. For example, who are the people that need to be educated on these issues? What are the issues, and what has been the impact of the Internet on these issues? What are current attitudes, perceptions, and behavior in situations involving computer ethics, and again, what is the effect of the Internet? Do we have guidelines and codes that provide assistance for these ethical situations? What else needs to be done to help address some of the problems in this important area?
The creator of ethics as a study of morality was the Greek philosopher Socrates (470-399 BC), who used ethics to define the terms of human virtues. The most important personal values are: righteousness, courage, honesty, tolerance, goodness, sincerity and fairness. In the field of ethics, Socrates and the entire Hellenic world saw the issue of goodness in human life or "eudemonia", i.e. happiness, as the most important. Goodness is a human characteristic and the greatest moral value. Socrates believed that virtue can be taught, i.e. that virtue is knowledge. A man must know what good is in order to do well. According to Socrates, knowing oneself is a prerequisite for happiness. Essentially, happiness is being good.

## BUSINESS ETHICS

The subject of business ethics (collective or business ethics) is the effect of the social nature of morality, and the feedback effect of business morality on the business environment. Thus, business ethics may be defined as a group of moral actions of an individual, as the element of a collective, that he/she adheres to during all forms of business activities without damaging the business relationships within the business system and the wider environment.
Public attention has lately turned towards debates about business ethics, as the social responsibility of the individual and the collective. The question arises as to whether business has anything to do with the morality of the individual and the collective. Many people deny the
connection between ethics and business, believing that the place of morality is within religion, while others perceive the interconnection between morality and religion. Every business activity has certain things in common with morality and moral actions of an individual or groups. Business ethics has two basic dimensions of expression and demonstration:

## - Collective ethics and

## - Individual ethics.

Collective ethics includes the application of ethical principles in the management's decision- making that refers both to external subjects and the environment and the ethical relations within the business system itself. Individual ethics involves adherence to the norms of customary business morality. If an individual has a deficit of ethical morality it means that they put their interests before the collective and legal norms, and before the norms of customary business morality, which can damage the business climate. Individual ethics is the basic element of group or collective ethics.

## ROLE OF ETHICS IN BANKING

Ontologism based on the concept of good as opposed to evil helps us define the banking business from the point of view of ethics. The idea of awareness or conscience of the need for banking products or services inevitably comes to mind. This simplified parallel leads us to the conclusion that full awareness of and the related ethics about the importance of banking products and services is imminent to all economies, regardless of their economic development.
The basic ethical principles in banking are:

- Principle of mutual trust is of special importance for successful functioning of the business system. Important and valuable deals are very often contracted over the phone, in the absence of witnesses, while the relationship between the participants is dominated by the inviolable principle of mutual trust.
- Principle of mutual benefit and interest means that none of the partners in a business relationship should feel cheated;
- Principle of good intentions is very important for business ethics and moral behaviour.

This principle means that there is no intention to treat the business partner in an immoral way, whether it refers to deception, theft or some other undesirable way of treating a business partner;

- Principle of business compromise and business tolerance refers to the harmonization of the conflicting interests of participants in the business process;
- Principle of ethical improvement of business behavior represents the business partner's readiness to accept the mistake that has been made as a result of his own actions.
He should admit the mistakes and respond in an appropriate way;
- Principle of de monopolization of one's own position, because monopolistic behavior on the market does not contain any ethical market value and
- Principle of conflict between one's own interests refers to the inability to relate common to personal interests, with simultaneous adherence to the same ethical values.
The violation of ethical principles in banking occurs when the lenders take too much risk, trying to find a loophole that allows them to approve more loans. Strict adherence to the law and regulations in the field of banking makes it possible to grant loans to all the qualified clients in a fair way.


## WHEN IT COMES TO GENERAL STANDARDS, THE BANK MUST TAKE INTO ACCOUNT THE FOLLOWING

- The bank must avoid a high concentration of loans in one industrial branch, sector or field, with the exception of specialized institutions that have this as their core activity;
- Clients who want to obtain a loan should maintain a certain amount of financial resources as a precondition for loan security;
- Loan approval refers to a strictly formal procedure in terms of purpose, source, price, terms and the method of payment;
- All loan applications must be accompanied by financial reports of the debtor for the previous year and
- Loans are granted with an amortization payment schedule.

Having in mind the negative effects of credit risks on the bank's operations, and the macro system's interest in the rational use of loans for the purpose of avoiding inflation trends, the bank should have a restrictive attitude towards loan applications that could be used to finance new risky investments, and thus avoid possible inflation tendencies.
The theoretical assumption that banks with higher capitalization rates and a better liability structure can enter long-term credit arrangements with a higher risk level has been empirically proven. It stems from the above that each bank should respect the general and the specific principles in formulating its credit policy. Since banks are trying to optimize their micro economy, they perform a significant macroeconomic function through their activity.
The bank's non-objectivity is most evident when it comes to establishing accurate information about the character of the debtor. Based on its subjective evaluation, the bank makes conclusions about the debtor. This indicator is most obvious when it comes to personal loans, and less obvious when it comes to corporate loans.
The analysis of every loan application requires one or several loans officers who have contacts with the client, one or several analysts who evaluate the client's financial abilities, a board for loan approval or a loan administrator who finally approves or rejects the loan request.
By protecting themselves, the banks also protect the efficiency of using the macro system's accumulation. In this way, the loss of banking and financial resources in the macro system is restricted and the selective and allocate functions of the total system are improved.
The person in charge of internal audit tasks should not be involved in other activities within the bank. If the internal audit unveils any case of illegal operation and violation of the risk management rules in the course of its inspection of specific fields of bank operations, it must promptly inform the bank's management thereof. If it fails to do so, the bank is running the risk of becoming illiquid, insolvent and its operations insecure.
Banking business is attractive for illegal transactions only if the effectiveness of a controlling mechanism for a consistent conformity with the operating principles is missing. Continuous monitoring is a significant activity for banking operations, since the very nature of this activity
involves a rapid change along with innovations. In traditional banking activities this problem is clearly seen, since some sort of records is kept on transactions.
However, there is an obstacle in the e-banking domain, particularly in regard to detection of illegal money transfer from an account to a card with a deposit amount.
It is to be expected that a more extensive use of e-money will lead to an increasing misuse of ethics. Even though banks, financial companies and clients gain multiple benefits by using the e-banking system, at the same time the application of e-banking jeopardizes the ethical domain, since it gives rise to increased cyber crime. Hackers usually disrupt the operation of information systems and transfer financial funds to their own accounts.
The most common targets of such criminals are ATMs. It is not to be neglected that banking technology is getting better, but hackers also develop their skills to steal funds from banks and thus undermine legitimate banking transactions.
One of the ways to fraudulently obtain money is stealth of personal data or identity. It involves a deliberate attempt at unauthorized acquisition of other people's personal data. This type of theft is possible to uncover only if individual users are vary and if they keep track the standing of their accounts each month. Otherwise, this theft could be hardly noticed.
This theft represents a major threat to banks, credit institutions and other financial companies which bear the brunt of the loss.
In order to prevent the identity frauds, legislative institutions notify the clients that they safeguard the sources of private information. Bankers should provide more detailed instructions to clients to check the balance on their accounts at least once a month and to report immediately any observed irregularity. Owing to the introduction of e-banking services, clients can check their account balances on a daily basis. Electronic business is possible to apply only if a mechanism for securing financial and other transactions on the Internet is developed. By using encryption systems and digital certificates it is possible to realize four basic functions of the transaction security, such as: confidentiality, authentication, integrity and incontestability. The efficiency of such measures should be proved by more extensive use of electronic money. The most important benefit of e-business is that financial flows assume different profile, whereas the banks move their desk operations to the clients' computers. Time will show whether we will reach statistical figures from the developed west where more than $80 \%$ of transactions are affected electronically.

## ISSUES AND CONCERNS: HOW THEY'VE GROWN AND CHANGED

In everyday life, "Ethics is the practice of making a principle-based choice between competing alternatives" [Kallman \& Grillo, 1996, p.3]. The issues in IS ethics would certainly fit comfortably within this larger umbrella. We ought to be able to assume that to use IT ethically, a person would first need to possess appropriate ethical standards for day to day living. It comes as a surprise, therefore, that, that many people who consider themselves ethical have less stringent standards when it comes to using computers and related technology [Solomon \& O'Brien, 1990, Cohen \& Cornwell, 1989].
Many people feel that using a computer to do something that is illegal or unethical is somehow not as "wrong" as other "real" criminal or unethical acts. For others, the term "IS ethics" refers just to issues of software piracy and unauthorized access to computer systems. Neither perception is correct. Criminal or unethical acts performed with the help of a computer are just as criminal or unethical. They usually just take less time or are harder to trace. Ethical concerns in IT actually encompass much more than just software piracy and computer hacking. Wood (1993) states that generalizations from many studies on IS ethics have been limited because most studies have concentrated solely on software piracy problems rather than a broader definition of IS ethics. Malone (1993) argues that ethical concerns in IS must go beyond behaviors that are considered illegal. He includes such topics as computer crime, software reliability, privacy and matching, employee displacement, and artificial intelligence. Hall and Hamilton (1992) find the issues even more extensive. In their recommendations on the ethical concepts that should be integrated into the MIS curriculum they include the issues of privacy, security, ownership of property, race, equity in access, the environment, internal control responsibility of IS personnel, misuse of computers, artificial intelligence and unemployment and displacement. In their discussion of what constitutes unethical computer use, Kallman and Grillo (1996) include social and economic issues, issues of individual practice, development process issues, issues involving managers and subordinates, processing issues, issues relating to the workplace, issues of data collection, storage, and access, issues about electronic mail, resource exploitation issues, vendor-client issues and issues of computer crime.
The rapid growth of Internet access and use seems to have made many of these issues more significant and pervasive. This growth has also spawned a host of new issues. Issues involving intellectual property rights, ownership of data, copyright laws and violations, and plagiarism now affect millions of people rather than just a few. From perhaps an opposing standpoint come the issues of free speech and censorship.
There is reason to believe that the ethical management of IT poses some special difficulties as well. For instance, information created and stored using IT is more easily altered, destroyed or accessed without authority or permission. Privacy, unauthorized access, and the theft of information become increasingly relevant concerns. Also, the use of computers and technologically advanced communications equipment changes the way people communicate with each other. Personal, face to face contact is reduced, decisions are made more quickly and less thoughtfully, and the potential for unethical use is increased simply because not enough time is devoted to careful consideration of all the ramifications of a particular act. Information sharing often conflicts with concerns of confidentiality and privacy, and the lack of access security can often make unethical use far too easy.

## CURRENT ATTITUDES, PERCEPTIONS, AND BEHAVIOR

Unethical and often illegal behavior in the use of IT seems to be commonplace. Software piracy and unauthorized access to computing facilities are illegal acts in most countries. Yet, many users of IT violate these laws with little or no concern. If so many people are willing to act in ways that are patently unethical, what kind of attitude might we expect when the issues are a little more blurred?
Many writers in the area of computer ethics paint an equally disturbing picture of current day business and computer ethics. Bloombecker (1991) finds reasons for despair, although he also finds reasons for hope. The software piracy and hacking remain largely offenses of the young may be too sanguine. Stark (1993) suggests that part of the problem of business ethics as a whole may exist because of the gap between "academic" business ethics and professional management. Machan (1991) agrees, pointing out that many classroom approaches to business ethics are little more than sessions of 'business bashing'.

Davis and Vitell (1991) suggest that ethical standards in IS may be on the decline, in sharp contrast to ethics in other business areas. Their study also revealed that a large minority of respondents believed that unethical is behavior could actually help them to be successful. Wood (1991), in his study comparing the computer ethics standards of managers and students found that the students tended to have lower ethical standards than present day IS professionals in nonacademic settings. The results of the many studies that have researched attitudes and perceptions regarding computer ethics show no reason for complacency. Perceptions of what is ethical and what is not vary widely. University students and faculty appear to have regrettably lax ethical standards when it comes to using computers.
This bodes ill for the future, especially as Internet use becomes increasingly more prevalent. The arena, and therefore the potential for unethical IT use just keep increasing. Even more disconcerting is the fact that although studies indicate that people seem to have a grasp of what constitutes unethical use of IT, their actual behavior often seems to ignore these very same ethical standards that they claim to possess.

## INFORMATION TECHNOLOGY AND CODES OF ETHICAL BEHAVIOR

Codes of behavior for IS professionals have been in existence since the 1960's. Why then, the sudden fuss over IT ethics? Several factors have contributed to the situation. First, the growth in technology, its complexity and its use, including access to the Internet, has been unprecedented.
Ethical codes developed even a decade ago can't possibly address the bewildering range of possible situations involving ethical conflict. Second, because technology use is so pervasive, the majority of the people who should be targeted by these codes of conduct do not belong to the professional organizations that developed them. In fact, many IT professionals do not belong to any professional organizations.
As a result, much of the audience remains untouched. Third, different organizations for IT professionals have different codes and guidelines. Although most have similar objectives, the treatment of these objectives differs from one organization to the next. Even if an IT professional were to belong to a particular organization, the standards by which he or she would be expected to live and work by would be different from those adhered to by a member of a different organization. There is no single set of widely accepted codes and guidelines for ethical decision making [Oz, 1992]. Finally, a code of ethical standards is not the law although most codes of ethics do incorporate sanctions to deal with misconduct. Although legislation to deal with a variety of computer and technology related crimes has been enacted, statutes fall far short addressing potential wrongdoing.
In a call for a unified ethics code for IT professionals, Oz (1992) examined the differences between the ethical codes of 5 organizations for IS professionals. The study found similarities as well as differences between these codes when examined in a framework of obligations to society, employers, clients, colleagues, the professional organization and the profession. One flaw in all 5 sets of standards was a lack of guidelines for prioritizing ethical conflicts. A unified code, the study concluded, would better serve IT professionals and would enhance public perception of the profession.

## SUMMARY AND CONCLUSIONS

The number of people touched by and affected by this technology is enormous and is growing rapidly, especially with the increased availability of the Internet. This makes a target audience difficult to define and difficult to reach. The ethical issues themselves are also difficult to define, increasingly complex and diverse, and are growing as rapidly as the technology. Attitudes, perceptions and behavior among users of this technology leave much to be desired. Codes of ethics and professional conduct vary from one professional organization to the next and are incomplete or obsolete. In addition, membership in these organizations makes up only a minuscule part of the relevant audience. Classes in computer ethics, when part of an IS or IT curriculum, don't appear to make much of an impact and reach only a small proportion of students who use IT.
Obviously, the importance of IS ethics cannot be overstated in the age of the Internet. There are too many people involved for us to remain unconcerned. It is probably not possible to develop comprehensive ethical guidelines to cover every possible situation of IT misuse. It is possible, however, to realize the pervasiveness and the magnitude of the problem. It is also possible to develop ethical guidelines on an ongoing basis to keep pace with changes in the issues. Finally, it is vital that these guidelines be a part of all school and college curricula rather than just IT related disciplines.
However, leaving aside such blatant examples of unethical behaviour, even the most well meaning of banks are going to confront moral dilemmas in the course of business. These dilemmas are more complex than the simple: "should I lie, cheat or steal variety?" They pose difficult choices that have the potential to damage reputation and lead to financial losses. The problem is that in an increasingly complex business environment the choice is not always the simple one between what is right and wrong. It is more often between what is right and less right - in other words between shades of grey. This increases the need for organisations to adhere to a strong set of values to steer them through the minefield of ethical choices with which they are faced as they make business decisions. It is also necessary to ensure that the behaviour of the organisation is in practice aligned with these values and that employee's buy into them, so that the organisation actually practices what it preaches.
Some of the practical examples of ethical dilemmas involving banks that have been in the news recently are, as banks reach out beyond their home market, they become exposed to unfamiliar business environments and customers whose ethical standards may be very different from their own. This puts extra strain on the "know your customer" policy upon which regulators are so insistent. Business dealings with Russia are a case in point. Here you have the situation of a country that is making the transition from a communist to a capitalist economy. This naturally creates profit opportunities for Western banks. It could indeed almost be argued that these banks have a moral responsibility to assist in transforming the Russian economy. Unfortunately, somewhere along the line, this transformation has gone wrong, and the borderline between what is legitimate and illegitimate business in Russia has become blurred, to say the least.

## REFERENCES

1. Daniel Daianu, Events Spur Re-examination of Business Ethics, Social Responsibility, Southeast European

Times, 23/12/2002
2. Eseji, Savjest. Noebius. com, 2005
3. John, Dalla Costa, The ethical imperative: Why moral leadership is Good Business, Perseus Publishing, 1998
4. Kar, Albert, Z. Is Business Bluffing Ethical in: John Drummond and Bill Bain, Business Ethics, Clio, Belgrade, 2001
5. Krstić, Borko: Bankarstvo /Banking/, Ekonomski fakultet, Niš, 1996
6. Rose Peter, S, Hudgings, Sylvia C, Bank Management, "Data status", Belgrade, 2005
7. Lowell Bennion, Max Weber's Methodology, Les Presses Modernes, Paris, 1933
8. "The Most Successful Actions for the Fight Against Corruption", OSCE \& "Anti-corruption Handbook",

Transparency International
9. General Encyclopaedia, LAROUSSE, vol. 1, Belgrade, 1971
10. Post James E., Frederick William, C, Business and Society, Corporate Strategy, Public policy, Ethics, "McGraw-Hill", 1996
11. Ristić, Života, Etika i novac /Ethics and Money/, essays, 2nd edition, Belgrade 2004
12. 11th IT Forum, Bankinfo, November 16, 2004
13. www.fsforum.org/Standards/Home.html.
14. Akerlof, G.A. "Social Distance and Social Decisions," Econometrica, 65, 5, 1997.
15. Camino, E. Etica de la especulacion financiera, Madrid: Union Editorial, 2004.
16. Cooperative Bank (some years): Annual Report.
17. Diez Nicolas, J. La escala de posmaterialismo como medida del cambio de valores en las sociedades contemporaneas, 1998. http://www.worlvaluessurvey.org.
18. Elster, J. "Emotions and Economic Theory," Journal of Economic Literature, XXXVI, 1998, pp. 47-74.
19. Fitoussi, J.P. La democracia y el mercado, Barcelona: Paidos Studio, 2004.
20. Guzman, J. "Etica y ciencia economica", In Fontela and Guzman (coord), Economia etica y bienestar social, Madrid: Piramide, 2003.

# PETROLEUM PROFIT TAX AND NIGERIA ECONOMIC DEVELOPMENT 

ADEGBIE, FOLAJIMI FESTUS<br>FACULTY<br>DEPARTMENT OF ACCOUNTING, SCHOOL OF BUSINESS<br>COLLEGE OF DEV. STUDIES, COVENANT UNIVERSITY OTA<br>FAKILE, ADENIRAN SAMUEL FACULTY<br>DEPARTMENT OF ACCOUNTING, SCHOOL OF BUSINESS COLLEGE OF DEV. STUDIES, COVENANT UNIVERSITY OTA


#### Abstract

Petroleum Profit Tax is a major source of revenue for the Federal Government of Nigeria to meet its statutory obligations of ensuring the economic development of Nigeria. It assists the government to achieve the country's macroeconomic objective in the areas of fiscal and monetary policies.However, it has been observed that non-provision of corporate social responsibilities in the communities where there is extraction of crude oil result into constant destruction of production installations, and hindrance to production; tax avoidance and evasion $d$ poor tax administration, and weak fiscal policy have been negating the increase in tax income generated. The main objective of this paper is to assess the relationship between petroleum profit tax and economic development of Nigeria for the enhancement of the welfare of the citizens. Primary and secondary data were used to collect the research data, while chi-square and multiple regression statistical models were used to analyze the results of the field work. The findings reveal that there is a very strong relationship between petroleum profit tax and economic development of Nigeria, tax avoidance and evasion are major hindrance to income growth in this sector, poor tax administration is a problem to effectiveness and efficiency of this source of income, and lack of corporate social responsibilities is causing unrest in the crude oil production zone. The paper recommends the need for the government to make judicious use income generated for the benefits of Nigerians, and among others the need for tax reforms to address the issue of tax evasion and avoidance.


## KEYWORDS

Avoidance, Corporate, Evasion, Economy, Responsibility.

## INTRODUCTION

$\mathfrak{T}$he Petroleum Profit Tax Act 1959(PPTA) provides for the imposition of tax on the chargeable profits of companies that are engaged in petroleum operations in Nigeria. Petroleum operations is defined under the PPTA as "the winning or obtaining oil in Nigeria by or on behalf of a company for its account by any drilling, mining, extracting or other like operations or process, not including refining at a refinery, in the course of a business carried on by the company engaged in such operations, and all operations incidental thereto and any sale of or any disposal of chargeable oil by or on behalf of the company" Nigeria economy is dependent on oil, as it cannot finance social and economic growth in the absence of a large oil revenue base. Oil accounts for about $90-95 \%$ of the export revenue, over $90 \%$ of foreign exchange earnings and about $80 \%$ of government revenue. The oil industry is thus the hub of the Nigerian economy, and needs to be sustained if the country is to achieve real economic growth. According to Nwete (2003), the oil glut of the 80 's that greatly impacted on global oil prices and the low OPEC quota, foisted on the country various fiscal regime for petroleum especially the petroleum profit tax of $85 \%$ and $20 \%$ royalty regime, all in a bid to get more revenue to oil the nation's economy. Since then Nigeria has had lofty aims for its oil industry, including the desire to increase reserve from 34billion barrels to 40 billion barrels by 2010 and subsequently its OPEC quota, optimization of oil revenue, increase in the industry's local content, and continuous attraction of foreign investment as a way of promoting and sustaining investment in the oil industry. If we compare it with other economic activities, the petroleum industry has wider attraction because of its special nature, which stems from the fact that till date, it remains the largest and most important industry in the world. It has continuously provided the world's energy and industrial needs, from transportation to agriculture. It has also been a monet spinner just for the oil production companies, providing them with the opportunity of economic and social development, and second for the multinational oil companies engaged in its extraction, and by extension the industrialized market to which the earnings of the multinational oil companies. From exploration to eventual production, the cost of developing and operating an oil field is very high and probably higher than any other industry.
Gelb (1981) averred that oil and gas production had been reveiving favorable tax treatment for many years, although one special provision dealing with percentage depletion was repeated for most oil and gas produces in 1975.The whole of the industry from exploration to production is filled with risks. From the high possibility that a hole in the ground will not yield reserves, the risks that the reserves if discovered will not be in commercial quantity to justify the investment, the technology risk in oil field development, to the failure of operations and vagaries of international oil prices. Thus upstream investment remains very risky and unpredictable. Most times development of new fields involve the sinking of capital before actual production reveals the reservoir characteristics, unlike most other economic activities. The objectives of petroleum taxation according to Nwete (2004) are numerous among which are: taxing in the petroleum industry is a way of achieving government's objective of exercising right and control over the public asset, Government imposes very high tax as a way of regulating the number of participants in the industry and discouraging its rapid depletion in other to conserve some of it for future generation. This in effect will achieve government aim of controlling the petroleum sector development. The second objective is that the high profit profile of a
successful investment in the oil industry makes it a veritable source for satisfying government objective of raising money to meet its sociopolitical and economic obligations to the citizenry. The third objective is to make petroleum taxation an instrument for wealth re-distribution between the wealthy and industrialized economics represented by the multinational organizations, who own the technology, expertise and capital needed to develop the industry and the poor and emerging economies from where the petroleum resources are extracted.Envirommental factor is another objective of petroleum taxing. The high potential for environmental pollution and degradation stemming from industry activities makes it a target for environmental taxation, as a way of regulating its activity and promoting government quest for a cleaner and healthy environment. Cleaner production may be achieved by imposing tax on it for pollution and environmental offences. Under the petroleum Profits Tax Acts of 1959 an oil company, in computing its taxable profits from petroleum operations, is entitled to deduct all outgoings and expenses which are wholly, exclusively and necessarily incurred by such company for the purpose of such petroleum operations.

## FOCUS

The focus of this paper is to evaluate the economic contribution of petroleum profit tax to the growth of Nigerian economy, and the enhancement of the economic well being of its citizens. Petroleum profit tax is a major source of the income being generated by the Federal Government of Nigeria. The industry remains the largest and most important industry in Nigerian economy. In view of the high rate of taxing the petroleum operatives, tax allowances are given to the companies as incentives. Tax allowance is a form of incentive used to ameliorate the difficulties and high tax burden inherent in a fiscal regime in order to include, promote and sustain investment in that fiscal regime. Tax allowances may not ameliorate the political risks of an investment; but will go a long way in addressing the imbalances especially between the government and the investor arising from a very tax burden. Tax allowance give a picture of how much of the investment risks the government is willing to share with the investor, and therefore affect the investor's decision based on his analysis of the after tax return of the investment in the prevailing circumstances. Tax allowances also make a fiscal regime more conducive and attractive for investment by taking cognizance of investment costs and losses, thus encouraging the investor to take more risks especially in less explored regions and for marginal fields. For the ascertainment of the profit of the company in involved in petroleum operations, the following is the aggregate of the income assessable to tax: proceeds of sale of all chargeable oil in the period, value of chargeable oil disposed in the period under review, value of chargeable natural gas in the period and all income in the period that is incidental to and arising from petroleum operations. In determining the chargeable profits, the Petroleum Profit Act of 1959 as amended in 1990 provides for some incentives or tax benefits, which involve the following:
Value of Natural Gas sold: The value of the gas contract may not be fully subjected to tax because discount is granted for possible losses arising from spillage and evaporation. The amount of discount to be granted is determined by the quality of the gas while the quality of the gas itself is defined by the load factor. The stated load factor has a corresponding gas factor as shown below. The gas factor or G -factor means the gas production cost adjustment factor. Where the actual load factor for a gas contract differs from the stated standard ,the corresponding gas factor will be determined by extrapolation.

| LOAF FACTOR | GAS FACTOR |
| :---: | :--- |
| $50^{\circ}$ | $16.9 \%$ |
| $60^{\circ}$ | $15.5 \%$ |
| $70^{\circ}$ | $14.3 \%$ |
| $80^{\circ}$ | $13.6 \%$ |

Capital Allowance: Capital allowances are granted to companies engaged in petroleum operations in lieu of depreciation in accordance with Petroleum Profit Tax Act (PPTA) 1990 broken into two types:
a. INVESTMENT TAX CREDIT: This is one of the tax offsets granted companies engaged in petroleum operations under section 17 of PPTA 1990 as stated thus:

## QUALIFYING EXPENDITURE RATE

On-shore operations (Land operations) 5\%
Operations in territorial waters and continental shelf up to and including 100 meters of water depth (off-shore operations) 5\%
10\%
Operations in territorial waters and continental shelf areas in water depth between 100 meters and 200 meters (off-shore operations) 15\%
Operations in territorial waters and continental shelf areas beyond meters of water depth
b.ANNUAL ALLOWANCE: An annual allowance is granted in respect of qualifying capital expenditure incurred wholly, exclusively and necessarily by any company on any asset for a given period. Annual allowances are granted on a straight-line basis, over a five year period, while $1 \%$ of the initial cost of each asset is to be retained in the books, and may only be disposed off on the authority of a certificate of disposal issued by the federal minister of mines and power. The $1 \%$ balance must be retained for as long as the asset has not been sold. According to PPTA 1990, table II of the second schedule stipulated the following rates as incentives:


## RESEARCH PROBLEM

Despite all these incentives available for the oil exploration companies, the industry still encounter the following identified problems: onprovision of corporate social responsibilities in the communities of oil extraction where their land has been degradated and unsuitable for agricultural produce, and the people are living below United Nations standard of living./This has resulted in destruction of production installations and cut down in production level; there is recorded poor tax administration and weak fiscal policies; there is pronounced tax avoidance and tax evasion which have negated the quantum of income expectation from this important sector of the economy. According to Chartered Institute of Taxation of Nigerian CITN (2005), in a bid to increase the accruing revenue to the government, the Federal Inland Revenue Service early in 2005 initiated a recovery drive which yielded a recovery of about N12billion from five major oil companies in Nigeria viz:

| Agip oil | $\$ 57.79$ million | (N8.09billion) |
| :--- | :--- | :--- |
| Philips oil | $\$ 13.0$ million | (N1.8billion) |

INTERNATIONAL JOURNAL OF RESEARCH IN COMPUTER APPLICATION \& MANAGEMENT

| Halliburton | $\$ 6.686$ million | (N939million) |
| :--- | :--- | :--- |
| Halliburton |  | N139, 970million |
| Technit | $\$ 464,204$ | (N64, 988million). |

## OBJECTIVES OF STUDY

The main objective of this paper is to evaluate the relationship of petroleum profit tax and economic development of Nigeria for the enhancement of the standard of living of the citizens. Other objectives are to assess the petroleum profit administration with a view to putting in place a good policy of administering the tax system for increase in the amount of revenue generated; to assess the negative effect of tax evasion and tax avoidance on income generation with a view to installing a good control system in Nigerian economy.

## THE CONCEPT OF TAX EVASION AND AVOIDANCE

Tax evasion and its sister tax avoidance are key fundamental problems of tax administration in a developing country like Nigeria. All forms of taxes in Nigeria are to some extent avoided or evaded because the administrative machinery to ensure effectiveness is weak. As a result of the diversities and complexity in human nature and activities, no tax, law can capture everything hence; loophole will exist and can only be reduced or eliminated through policy reforms. Tax evasion and avoidance lead to loss of revenue for the government. A high degree of tax evasion has unpleasant repercussions on resources; it affects wealth redistribution and economic growth; it creates artificial bias in macroeconomic indicators. No matter how fair a tax system appears to be on paper, it will lack the standards of equity if there is high incidence of tax evasion or artificial tax avoidance. The border line of tax evasion and avoidance is very thin. Excess tax avoidance leads to tax evasion. According to Nzotta (2007:40), tax avoidance and evasion in Nigeria is a serious limitation to the revenue mobilization efforts of the public sector in the country. The different tiers of government in Nigeria rely on taxes as a major source of revenue for the implementation of their programmes.Thus, a high level of tax avoidance and evasion sustains a number of distortions in the resource profile of the government. Tax evasion and avoidance have generated considerable interest and concern to the government and finance experts in most recent time. This is because of their socioeconomic implications and the effects on government's revenues and fiscal viability in the long run. Canadian Department of National Revenue gave a comprehensive definition of tax evasion: "Tax evasion is the commission or, the omission of an act knowing with intent to deceive so that the tax reported by the taxpayer is less than the tax payable under the law, or a conspiracy to commit such an offence. This may be accomplished by the deliberate omission of revenue, the fraudulent claiming of expenses or allowances, and the deliberate misrepresentation, concealment, or withholding of materials facts"

## CONCEPT OF ECONOMIC DEVELOPENT

Economic development is the development of economic wealth of countries or regions for the well-being of their inhabitants. From a policy perspective, economic development can be defined vices as efforts that seek to improve the economic well-being and quality of life for a community by creating jobs and supporting or growing incomes and the tax base. Economic development implies improvements in a variety of indicators such as literacy rates, life expectancy, and poverty rates.GDP is a specific measure of economic welfare. Economic development encompasses policies that governments undertake to meet broad economic objectives such as price stability, high employment, expanded tax base, and sustainable growth

## RESEARCH QUESTIONS

The following questions are pertinent to work: $a$. what is the relationship between petroleum profit tax and economic development? b . What is the effect of the weak and poor administration of petroleum profit tax on Federal Government revenue generation in Nigerian economy? c. What are the effects of tax evasion and tax avoidance of petroleum profit tax on the development of Nigerian economy?

## HYPOTHESES

Four hypotheses stated in null forms were formulated to carry out this work.

1. There is no significant relationship between petroleum profit tax and economic development of Nigeria.
2. Tax evasion and avoidance and tax avoidance has no negative impact on revenue generation through petroleum profit tax.
3. Tax administration in Nigeria is not effective and efficient and allows for tax evasion and tax avoidance in petroleum profit tax generation in Nigerian economy.
4. Non-provision of Corporate Social responsibilities in oil producing region has no negative impact on the level of production and petroleum profit tax generation in Nigerian economy

## LITERATURE REVIEW

Nwete (2004:1-23) said Nigeria cannot finance social and economic growth in the absence of a large oil revenue base. Oil in Nigeria accounts for about $90-95$ per cent of its export revenues, over 90 percent of foreign exchange earnings and about $80 \%$ of government revenue. The oil industry is the main hub of the Nigerian economy, and needs to be sustained if the country is to achieve real economy growth. He centered his study on how tax allowances can promote investment in Nigerian petroleum industry. He said Nigeria has the aim to optimize its oil revenue, and achieve increase in the local content so as to attract foreign investment as a way of promoting and sustaining investment in the oil industry. However the bane of the industry has been the failure of the allowances and incentives to attract more investment and more wealth capable of sustaining the future growth of the economy even when the oil wells have dried up. He averred that there is the need to have in place a fiscal regime that will, through tax allowances and other incentives become investor friendly by balancing government needs with those of investors through its stability, efficiency and flexibility. He explained the risks inherent in the industry like high possibility that a hole in the ground will not yield reserves, the risks that the reserves if discovered will not be in commercial quantity to justify the investment, the technology risk in oil field development, the failure of operations and vagaries of international oil prices. That upstream investment remains very risky and unpredictable-most times development of new fields involves the sinking of capital before actual production reveals the reservoir characteristics, unlike most other economic activities. He therefore explained that tax allowance is a form of incentive used to ameliorate the
difficulties and high tax burden inherent in a fiscal regime in order to induce, promote and sustain investment in that fiscal regime. Nwete said further that the allowances and incentives have been unable to promote and sustain investment to the level desired by government because the fiscal regime and the allowances and incentives neither encourage marginal investment nor adequately enhance the present value terms of the investors post tax return due to inherent constraints and limitations. That the petroleum profit tax of 85 percent even without other levies and taxes is among the highest in the world. The 50percent rate under Production Sharing Contract (PSC) is also on the high side. The 15percent minimum tax liability is a big burden to a company that is yet to breakeven especially after paying bonuses, royalties and other charges. The 20percent royalty for onshore fields is also not in line with global trends. He recommended an improvement on the present models like adopting a flat rate of 40 percent and an additional profit tax based on the company's internal rate of return that will promote and sustain investment, and provide an incentive to pay more tax that can be used to develop other sectors of the economy. That the tax regime should be flexible to accommodate any change affecting the global industry especially in the face of foreign tax credit system.
Gelb (1981:1-35) analyzed the removal of controls on the prices of domestically produced crude oil in the United States, that oil companies would be expected to derive substantially higher revenue and profits from the new price levels. Much of the additional profit would be an unearned windfall that should be recovered through a tax, which would be used to assist the financing of other energy objectives and related energy programs, and for equity and income distribution reasons. Windfall Profit Tax (WPT) proposals are in theory, mechanism for the redistribution of income and reallocation of resources-the shifting of anticipated industry revenue to the general public or low-income groups or for use in energy conservation and alternate energy development. He analyzed the federal controls on oil which covered virtually all phases of production, refining, and distribution of crude oil and petroleum products. That oil and gas production had been receiving favorable tax treatment for many years. A lower tax rate leads to a greater allocation of capital to the production of oil and gas than would occur under a normal tax rate.
Egbogah (2009:1-5) stated that oil exploration and production activities in Nigeria in its over fifty years of operations is yet to operate at standards and levels of efficiency expected of a twenty century oil and gas industry. The operating landscape, business and competitive environments, both locally in Nigeria and internationally have continued to change rapidly in the last few years in such a manner that the Nigeria's oil and gas industry as it is currently set up ,can no longer operate in a sustainable manner. Despite the evolution, reforms and internal restructuring, the public sector of the industry has yet to fully meet the aspiration of the Federal Government and key stakeholders. He stated further that the existing structure of the industry and enabling legislation were no longer consistent with global standards. The private sector of the upstream sector of the industry dominated and operated by the international oil and gas companies in joint venture with Nigeria National Petroleum Corporation equally continued to face new challenges mainly with funding and cash call problems, as well as challenges in the Niger Delta region. That the oil and gas sector accounts for about 30-40percent of Gross Domestic Product (GDP), 80percent of government revenues and 95 percent of foreign exchange earnings, as is also the backbone of Nigeria's national development plan. Efficient management of the industry will have a significant impact not only on the well being and future prospects of the Nigerian economy, but also on the security and stability of global energy supply and the growth of the economy. He discussed about current reforms in the industry first that the reform clearly defines three different sectors of the industry to facilitate the governance processes and regulatory functions.

1. Upstream sector: covering oil and gas exploration and development.
2. Midstream sector: covering oil transportation, gas transmission, gas processing; derivative processes/production, and oil refining.
3. Downstream sector: covering gas distribution and sale, petroleum product distribution and storage and petroleum product retail.

The petroleum industry bill, he continued will promote transparency in the oil and gas industry in Nigeria. It is the expectation of government that the new law will transform the industry from the most opaque to one of the most open and transparent in the world. The second key feature of the reforms is separation of policy, regulatory and commercial roles of the public sector entities. The separated role will be assigned to appropriate agencies to ensure clear delineation of responsibilities. The three regulatory bodies are:

1. National Petroleum Inspectorate, which is autonomous and to ensure the efficient safe, effective and sustainable infrastructural development of upstream petroleum operations.
2. Petroleum Products Regulatory Authority, which will regulate the downstream sector of the industry, and promote implementation of national technical and commercial policies for the downstream operations.
3. National Midstream Regulatory Agency, which will regulate the midstream petroleum operations, and promote the implementation of national technical and commercial policies of the midstream sector of petroleum operations in Nigeria.
He mentioned some of the challenges facing the industry among which are funding, joint venture funding is a big challenge which a long-term solution had to be sought. All companies engaged in upstream petroleum operation including the national oil company will be required to pay company income tax as well as introduction of Nigeria Hydrocarbon Tax (NHT), which is a simplified version of petroleum profit tax. He concluded that Nigeria oil and gas industry reform programme is about harness opportunities and addressing the challenges. It is a very comprehensive and radical transformation aimed at ensuring that Nigeria gets the maximum benefits, directly and indirectly, across oil and gas values chains. Benefits will accrue to Nigerian economy in the areas enhanced revenue in crude oil and gas sale, and increase in petroleum profit tax. It opens up horizons for wider participation of stakeholders.
UNDP/World Bank (2004:13-113) stated that oil and gas are critical to Nigeria's economic and social performance. Oil alone accounts for 40 percents of the country's GDP, 70percent of budget revenue and 95 percent of foreign exchange earnings .Nigeria's dependence on petroleum is much greater than that of many other major producing countries. Broadly speaking, they continued that both versions of the tax/royalty/memorandum of understanding (MOU) system (the 1991 MOU and the proposed new MOU) and the current model production sharing controls (PSCs) meet most oil taxation objectives, including the provision of adequate incentives to invest, transfer of a major share of project rents to the government, a modestly progressive government take, and international competitiveness. A major revision of the existing levels of structure of oil taxation is not recommended, especially given the present need to retain and increase investor confidence in Nigeria. However, they recommend the following areas for review of terms for mutual benefits of the government and investor:
Small fields, is not commercially viable under existing terms, which should be revised to make the projects interesting to investors for a win-win opportunity.
Deep offshore should involve not only a reassessment of the appropriate level of government take, but also improvements in the applicable PSC structure to increase its efficiency and its sensitivity to underlying project profitability.
Cost containment. Many of the provisions of the existing tax system while satisfying other objectives counter the objective of cost containment.

They averred that the investment allowance, accelerated depreciation and consolidation, should be reviewed to see whether there is room for improvement in their design( the tax invasion clause in the new MOU is an interesting innovation in this respect),but probably the greater implication of this finding is the need for institutional capacity to monitor costs effectively. They explained further that Nigeria has given an intended and successful boost to gas development by offering very favorable fiscal incentives. In certain circumstances, however, the incentive can produce disturbing results. In particular, provisions which allow gas development cost to be consolidated with oil income which is taxed at an 85 percent rate, while gas revenues are taxed at only a 30percent rate can provide an investor with a pot-tax rate of return which is greater than the project's pretax of return. They stated that the institutional capacity to administer petroleum taxes effective lie woefully lacking in Nigeria petroleum tax system. A comparison of relative petroleum dependence in some developing and oil producing countries was analyzed thus:
PETROLEUN ACCOUNT FOR
Nigeria
Norway
Indonesia
Algeria
Venezuela
Mexico
table 1: RELATIVE PETROLEUM DEPENDENCE

| \%GDP | \%GOV. REV. | \%EXPORT |
| :--- | :--- | :--- |
| 40 | 70 | 95 |
| 10 | 15 | 50 |
| 10 | 25 | 15 |
| 30 | 65 | 80 |
| 28 | 55 | 70 |
| 2 | 30 | 6 |

$$
\text { Source: UNDP: } 2004
$$

From the table 1 above, it is evident that Nigeria records the highest ration of performance than other countries. The impact of petroleum on GDP is 40percent above others, the percentage of petroleum to government revenue is 70 percent which is the highest, while the percentage to export is 95 percent which shows the significance of petroleum industry towards the economic development of Nigeria unlike other countries in analysis whose economy are diversified.

## RESEARCH METHODOLOGY

The work is empirical, exploratory and descriptive. The population chosen is the oil and gas industry, Federal Board of Inland Revenue (FBIR), Federal Inland Revenue Service (FRIS) and Central Bank of Nigeria. Using stratified sampling method, the sample representatives are African Petroleum plc, Beco plc, MRS Oil Nigeria plc, Eternal Oil and Gas plc, Conoil plc, Total plc, and Oando plc, Tax official from FBIR and FRIS. Sixty questionnaires were administered to the Accountants and Finance Managers of the oil companies while forty questionnaires were administered to the tax official in FBIR and FIRS.Both primary data and secondary data were used for the analysis of the work. For the primary data, closed ended questionnaires with five variables of Strongly Agree (SA), Agree (A), Strongly Disagree (SD), Disagree (D) and Indifferent (ID) were adopted with linker scales of $5,4,3,2$ and 1 respectively for the variables. Gross Domestic Products (GDP), and federal collected tax revenues from 1981-2007 were obtained from Central Bank of Nigeria for the computation of secondary data (Appendix 1). The statistical method used for the primary data computation is Analysis of Variance (ANOVA) while the method for the secondary data is Multiple Linear Regression (MLR).Statistical Package for Social Sciences (SPSS) was used for the computation of both primary and secondary data.

## ANALYSIS OF RESULTS

The results of the analysis are analyzed according to the findings of each hypothesis.
Hypothesis 1: There is no significant relationship between Petroleum Profit Tax and Economic Development.
The secondary data was used to analyze hypothesis 1 with the use of Multiple Linear Regression.
TABLE 2: RESULTS OF THE MULTIPLE REGRESSION


## FIGURE 1: NORMALITY PLOT OF THE MULTIPLE REHRESSION

From the results analyzed in table 2 above, the Independent variables are highly correlated and hence there is multicollinearity in the results. With the dependent variable (GDP) constant with 1,the Petroleum Profit Tax is .955,Company Income Tax is .981,Customs and Excise Duty is .879 and Value Added Tax is .982 .From figure 1 above, the normal probability plot lie in a reasonably straight diagonal line from bottom left to top right. There is no deviation from normality. The scatterplot of the standardized residuals is rectangularly distributed with most scores concentrated in the centre along the zero point. In evaluating the model, the R-Squared of .986 means that 98.6 percent of the variables are explained in the Gross Domestic Product (GDP) which is high and impressive. With the adjusted R-Squared of .984, it means 98.4 percent is the true value of tax and the variables that constitute the GDP which is high and impressive. In computing the Analysis of Variance (ANOVA) in the regression model, the $F$ statistics test computed show a figure of 391.258 at the degree of freedom 4 and 22 and level of significance .05 , which is higher than the tabulated value of 2.82. Therefore with all these aforementioned explanations and analysis, the null hypothesis is nullified and accept the alternate which says Petroleum Profit Income Tax has a Significant and positive impact on the economic development of Nigeria. The standardized coefficient from table 1 shows that Petroleum Profit Income Tax with .276 is third to value added tax (VAT) in contribution made to Gross Domestic Product (GDP) and economic development of Nigeria .With the significant level of .001 which is less than 0.05 ,Petroleum Profit Tax is making a unique contribution to the economic development of Nigeria and the composition of GDP.
Hypothesis 2: Tax evasion and Tax avoidance have no negative impact on revenue generation through petroleum profit tax.
Out of one hundred questionnaires administered only seventy six were valid for analysis, and the result of the SPSS used is analyzed thus:
TABLE 3: FREQUENCY AND RESULT ANALYSIS


At the level of significance .05 , degree of freedom 2 and 74 ,the calculated value of the ANOVA F-statistics is 17.930 while the computed is 3.13. With the calculated greater than the tabulated, it means we have to reject the null hypothesis and accept the alternate. The implication of the result is that tax evasion and tax avoidance have significant negative impact on revenue generated through petroleum profit tax.
Hypothesis 3: Tax administration in Nigeria is not effective and efficient and allows for tax evasion and tax avoidance in petroleum profit tax generation in Nigerian economy
The results of our findings are tabulated and analyzed thus:
TABLE 3: FREQUENCY AND RESULT ANALYSIS


At the level of significance .05 , degree of freedom 3 and 71 , the ANOVA F-Statistics is 1.748 while the tabulated is 2.74 . With this result where the computed is lower than the tabulated, we have to accept the null hypothesis and reject the alternate. The implication of the result is that tax administration in Nigeria tax system is not effective and efficient and these have given encourage ment to tax avoidance and tax evasion in petroleum tax income generation.
Hypothesis 4:Non-provision of corporate social responsibilities in oil producing region has no negative impact on the level of production and petroleum tax generation in Nigerian economy
The result of the field survey and findings are analyzed thus:

|  | TABLE 4 FREQUENCY AND RESULT ANALYSIS |  |  |  |  |
| :--- | :--- | :---: | :--- | :--- | :---: |
| VARIABLES | FREQUENCY | PERCENT | VALID PERCENT | CUMULATIVE PERCENT |  |
| Agree | 7 | 7 | 9.46 | 9.46 |  |
| Strongly Agree | 3 | 3 | 4.05 | 13.51 |  |
| Disagree | 23 | 23 | 31.08 | 44.59 |  |
| Strongly Disagree | 40 | 40 | 54.05 | 98.64 |  |


| Indifferent | 1 | 1 | 100.00 |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Total | 74 | 74 |  |  |  |
| Missing system | 26 | 26 |  |  |  |
| Total | 100 | 100 |  |  |  |
|  |  | Source: Field survey 2010 |  |  |  |
|  |  | SPSS COMPUTATION RESULT |  |  |  |
|  | SUM OF SQUARE | DF | MEAN SQUARE | F.STATISTIC | SIG. |
| n Groups 14.1 | 14.127 | 2 | 7.063 | 4.686 | . 012 |
| Groups 108. | 108.540 | 72 | 1.507 |  |  |
| 122.667 |  | 74 |  |  |  |

At the level of significance of 0.05 , degree of freedom 2 and 72 , the ANOVA $F$-Statistics is 4.686 while the tabulated is 3.13 . From the result, the calculated is higher thah the tabulated. The implikation is that we have to accept the alternate hypothesis and the null. This means that Nonprovision of social responsibilities by the petroleum exploring companies in the communities of oil exploration has significant negative impact on the level of production and petroleum tax generation.

## CONCLUSION

From the results obtained, there is no doubt that petroleum profit tax is a key indicator to consider when discussing the economic development of Nigeria. It is a major source of revenue for the Federal Government to meet their statutory obligations for the well being of the citizens. However, non-provision of corporate social responsibilities in the oil producing region has met with stiff opposition from the various oil- rich communities.With the extraction of crude from these regions, their means of livelihood have been degraded and land depleted. The restive youths and members of the communities disrupt production installations and in effect this has been affecting the level of production of oil, the quantum of revenue generated and the amount realized from petroleum profit tax. There is poor tax administration in the entire system which has given encouragement to tax evasion and avoidance. The effect of this is reduced revenue for the Federal Government, and their inability to meet their budgetary level. Tax evasion and tax avoidance are unnecessary evils being practiced by the oil exploring and extraction companies. They do these to their own benefits, but to the detriment of the development of the economy of Nigeria. There is the urgent need to implement tax reforms in the system, because there is a significant relationship between petroleum profit tax and economic development of Nigerian economy.

## RECOMMENDATIONS

To achieve the economic goals and objectives of the development of Nigerian nation, to continue to become relevant in the global economy and enhance the welfare of Nigerian population the following recommendations become imperative.

1. Provision of corporate social responsibilities by the oil exploring and extraction companies in their areas of operations to cater for the wellbeing of the citizens. Corporate social responsibility can also be called corporate social investment, because it is an investment to encourage more investment. Corporate social investment is a concept whereby organizations consider the interest of society by taking responsibility for the impact of their activities on customers, suppliers, employees, shareholders, communities and other stakeholders, as well as the environment. This obligation is seen to extend beyond the statutory obligations to comply with legislation and sees organization voluntarily taking further steps to improve the quality of life for employee and their families as well as for the local community and society at large. Corporate social investment can be employed by an organization as a competitive strategy over its competitors. Corporate social investment if properly managed will yield profits like every other investment, either in the long-run or in the short-run. Like other kinds of investment organizations must know which social investment activity they are to invest in at a point in time.
2. Professional training for the tax inspectors and officials to improve the tax administration system. Many tax officials are corrupt, ineffective and inefficient because of poor professional training. There is the for off-shore training for the tax officials and inspectors in countries where there tax structures are perfect and effective like United Kingdom, United States of America,Canada,Japan etc. Lack of professional training gives room to poor assessment of tax payers; inability to carry out back-duty audit effectively makes the system to lose income tax generation; the attitude to help the tax payers reduce their tax liability has given room to corruption. Good professional training and good remuneration will encourage good and effective tax administration which will enhance tax income generation.
3. Review of tax laws and regulations for effectiveness and effectiveness. The present tax laws have loopholes which the review will block and discourage tax avoidance. There should be review of the law to give special treatment to the problem of tax evasion, as this is an evil that had been negating the income tax generated. Stiffer penalty should be introduced in the law to discourage tax evasion. Economic and Financial Crime Commission should be incorporated into tax recovery mechanism that will discourage tax avoidance and evasion. Eradication of tax avoidance and evasion will enhance the revenue generated through petroleum profit tax.
4. With the integration of technology in the global economy, the assessment and payment of tax liability should be fully computerized. All the petroleum exploring companies should be link to wide area network of Federal Board of Inland Revenue and Federal Inland Revenue Service for assessment, tax payment monitoring and back-duty audit. This will bring efficiency to our tax system, improve tax administration and eradicate tax evasion and reduce tax avoidance.
The implementation of all these recommendations and commitment of the operation companies and Federal Government tax agencies will improve and enhance the contribution of petroleum tax to Nigerian economic development.

| APPENDIX |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | GDP AND FEDERAL GOVERNMENT COLLECTED TAX REVENUE |  |  |  |  |
| YEAR | GDP | PTI | CIT | CUSTOMS \& EXISE DUTY | VAT |
|  | N’000000 | N'000000 | N’000000 | N'000000 | N'000000 |
| 1981 | 50,456 | 6,326 | 403 | 2,326 | - |
| 1982 | 51,654 | 4,847 | 550 | 2,336 | - |
| 1983 | 56,313 | 3,747 | 562 | 1,984 | - |
| 1984 | 62,474 | 4,762 | 787 | 1,616 | - |
| 1985 | 70,633 | 6,711 | 1,004 | 2,184 | - |
| 1986 | 71,859 | 4,811 | 1,103 | 1,728 | - |
| 1987 | 108,183 | 12,504 | 1,235 | 3,541 | - |
| 1988 | 142,618 | 6,815 | 1,551 | 5,672 | - |
| 1989 | 220,200 | 10,598 | 1,914 | 5,816 | - |
| 1990 | 271,908 | 26,909 | 2,997 | 8,641 | - |
| 1991 | 316,670 | 38,616 | 3,828 | 11,457 | - |
| 1992 | 536,305 | 51,477 | 5,417 | 16,055 | - |
| 1993 | 688,137 | 59,208 | 9,554 | 15,485 | - |
| 1994 | 964,005 | 42,803 | 12,275 | 18,295 | 7,261 |
| 1995 | 1,934,831 | 42,858 | 21,878 | 37,364 | 20,761 |
| 1996 | 2,703,809 | 76,667 | 22,000 | 55,000 | 31,000 |
| 1997 | 2,801,973 | 68,574 | 26,000 | 63,000 | 34,000 |
| 1998 | 2,721,179 | 68,000 | 33,300 | 57,700 | 36,000 |
| 1999 | 3,313,563 | 164,300 | 46,200 | 87,900 | 47,100 |
| 2000 | 4,727,522 | 525,100 | 51,100 | 101,500 | 58,500 |
| 2001 | 5,374,339 | 639,200 | 68,700 | 170,600 | 91,800 |
| 2002 | 6,232,244 | 392,20 | 89,100 | 181,400 | 108,600 |
| 2003 | 6,061,700 | 683,500 | 114,800 | 195,500 | 136,400 |
| 2004 | 11,411,067 | 1,183,600 | 113,000 | 217,200 | 159,500 |
| 2005 | 15,610,882 | 1,904,900 | 140,300 | 232,800 | 178,100 |
| 2006 | 18,564,595 | 2,038,300 | 244,900 | 177,700 | 221,600 |
| 2007 | 23,280,715 | 1,600,600 | 275,300 | 241,400 | 289,600 |
|  |  | ce: Centra | igeria Annu | Bulletin (2007) |  |

## REFERENCES

CITN, (2005) "FIRS Recovers Oil Firms' Tax Arrears,Lauds Govt's Tax Reform" CITN New,vol. 2 no 3 July-Sept. 2005
Egbogah,E.O.(2009) "Key features of Oil and Gas Industry Reforms"2 ${ }^{\text {nd }}$ India-Africa Hydrocarbon Conference, New Delhi 2009
Gelb,B.A.(1981) "The Crude Oil Windfall Profit Tax Act"Context and Content"Gene Synder U.S.Depository Material, Government Documents Collection,Northern Kentucky University Congerssional Research Service.
Nwete, B, O.(2004) "How can Tax Allowances Promote Investment in Nigerian Petroleum Industry"bonlaw@yahoo.co.uk
Nzotta,S.M (2007) "Tax Evasion Problems in Nigeria :A Critique" The Nigerian AccountantsNumber 2 volume 402007
PPTA,(1959) Petroleum Profit Tax Act (1959)
PPTA,(1990) Petroleum Profit Tax Act (1990) as amended.

# WOMEN ECONOMIC EMPOWERMENT THROUGH SELF HELP GROUPS: A STUDY IN ANDHRA PRADESH 

DR. B. V. PRASADA RAO<br>ASSOCIATE PROFESSOR<br>DEPARTMENT OF BUSINESS ADMINISTRATION AND MANAGEMENT, SCHOOL OF BUSINESS ADAMA UNIVERSITY ETHIOPIA

S. R. PDALA<br>TEACHING ASSOCIATE<br>A. U. P.G.EXTENSION CENTRE VIZIANAGARAM<br>DR. NEDURI SURYANARAYANA<br>ASSOCIATE PROFESSOR<br>SCHOOL OF BUSINESS<br>ADAMA UNIVERSITY<br>ETHIOPIA


#### Abstract

There is an emerging need to promote women empowerment among the rural women. Towards this end, delivery of micro finance to the micro enterprises plays a significant role. Rural women with low income and lack of knowledge of available banking facilities can do little facilities can do little for the growth of banking habits on their own. For this, a concrete effort is needed to be taken up by the society, the government and by bankers themselves to enhance the standard of women with regard to banking habits. The Government has emerged as a major catalyst by way providing training incentives and other facilities to succeed particularly in rural areas to empower the women. Studies have shown that the delivery of micro finance to the poor is productive, effective and less costly, if they are organized into SHGs. Self-employment, which is the best employment in the wake of paucity of employment opportunities is emerging to be a very important source of livelihood for women in Asia and South East Asia. The SHG movement in India in general and Andhra Pradesh in particular has metamorphosis the rural economic scenario perceptibly.


## KEYWORDS

SHG, WOMEN, EMPOWERMENT, POVERTY, RURAL

## INTRODUCTION

$\mathfrak{T}$he present world population is 7.1 billions, which is growing at the rate of 97 million people per year will touch 8.5 billion by the year 2025. About 95 per cent of the population growth will be in the developing countries. The Asian population is 3.55 billions, which may reaches 4.54 billion by 2025 and women constitute around half-of the total world population (V.K. Singh, 2007). The Bureau of Labour Statistics also shares that only $9 \%$ of female professionals were employed in the high-paying computer and engineering fields, compared with $45 \%$ of male professionals. As world economic profile of women shows, women represent 50 per cent of the world population make up 30 per cent of the official labour force, perform 60 per cent of all working hours, receive 10 per cent of world income and own even less than one per cent of the world's property (M.A. Sudhir et. all, 2007)
There is an emerging need to improve women status should start with economic empowerment. Empowerment is a concept that is of equal importance to both men and women, it is the idea of sharing power, of truly giving it away. Empowerment is the process through which individuals gain efficiency, defined as the degree to which an individual perceives that they controls their environment. In the words of Kar (1995) opines that empowerment of women involves four interrelated and mutually reinforcing components: (1) collective awareness and capacity building and skills development, (2) participation and greater control, (3) decision making power and (4) action to bring about gender equality.
International Conference on Population and Development (ICPD) held in Cairo stressed on women empowerment and opined that country's overall development and quality of people's life is more depended on women empowerment (ICPD Report, 1994). In the words of former President of India APJ Abdul Kalam, "empowering women is a prerequisite for creating a good nation, when women are empowered, society with stability is assured. Empowerment of women is essential as their thoughts and their value systems lead to development of a good family, good society and ultimately a good nation" (Sharma Sheetal, 2006)
According to Asis Kumar Pain (2007) describes in his study that women comprise almost 50 per cent of the world population, live in abject poverty and utter distress. It is evident that in Pakistan and Maldives women are still found to be a disempowered a lot. But in case of Bhutan, empowerment of women has been found to be more or less equitable. Biswas (1999) developed eleven indicators of women's empowerment viz., 1. Mobility, 2. Decision making power, 3. Autonomy, 4. Economic security, 5. Freedom from domination by the family, 6. political and legal
awareness, 7. participation in public protests and political campaign, 8. contribution to family expenditure or income, 9. reproductive right, 10 exposure to information, and 11. participation in development programmes.
When a woman is empowered it does not mean another individual becomes powerless or is having less power. On the contrary, if a women is empowered her competencies towards decision-making will surely influence her family's and neighbor's behaviour. The presence of these spillover effects will thus create a 'social multiplier', where aggregate power will be greater than individual power. This indicates that 'woman is a person and women are a power'. Based on this Micro-Finance or Self-Help Groups are successful to develop the entrepreneurship among the women.
In advanced countries, there is a phenomenon of increase in the number of self-employed women after the World War II. In USA, women own 25 per cent of all business, even though their sales on an average are less than two-fifths of those of other small business. In Canada, one-third of small business is owned by women and in France, it is one-fifth (Kumar, 2004). 90 per cent of the rural women are unskilled and 88 per cent are illiterate which makes them vulnerable to exploit and economically dependent on men. No serious efforts have been made to improve the condition of women. There is a need to promote as entrepreneurship through which women of rural areas are empowered (Minakshi Sudarshan Mehta, 2006).
Entrepreneurship Development is a very crucial factor for the acceleration of economic growth of any country and women entrepreneurship development is an essential part of human resource development. Women entrepreneurs have started show in more interest because it provides them an opportunity to be one's own boss, the challenges they want to face and the chances of making more money, which outweigh their family duties. Moreover, technological development empowers women to acquire more relevant qualifications and values to meet the demands of entrepreneurship. To fill the gap in the implementation of this erstwhile self-employment must be designed to development of entrepreneurship among the women, through which possible to develop the women empowerment.
India has made tremendous progress in various spheres of life during the last five and half decades. Its economy has expanded and diversified, society has become cohesive and polity democratized. It has also been facing many problems, some of which have successfully been solved, but many others still remain unsolved. Poverty is one such challenge India has been facing today.
To fill these gaps the Government of India announced a holistic programme called Swarna Jayanti, Gram Swarozgar Yojana, which is based on group approach to rural poor were organized into Self-Help Groups (SHGs) provided micro-credit and look up viable economic activities on their own.
While most of the development programmes address themselves to alleviating the condition of poor who live below subsistence levels. Women, who from the single largest disadvantaged section of gender oppression to the already existing caste and class oppression are seldom given priority in such programmes. Majority of these women come from the lowest strata of the caste/class hierarchy. Their caste affiliation restricts their mobility; their class membership limits their access to productive resource, while their gender role minimizes their economic participation, it being limited only extensions of domestic order. As such, they are marginalized as workers, are found in situations of immense exploitation and victimization and are therefore forced to a status of invisibility and powerlessness. Despite their invisibility in the labour force and their powerlessness in the family, it is their meager but substantial income that sustain and meets the needs of the family. This is particularly, the case, when unemployment among men is high and where the major item of expenditure is alcohol and gambling.

## EMPOWERMENT OF WOMEN IN INDIA

Women constitute about 48 per cent of total population of the country as per the 2001 census in India; they suffer many disadvantages as compared to men in terms of literacy rates, labour participation rates and earnings. In order to address issues relating to social and economic advancement of women, the Department of Women and Child Development (DWCD) under the Ministry of Human Resource Development has been implementing various schemes. The National Policy of Employment of women was adopted in the country in 2001 with the ultimate objective of ensuring women their rightful.
The major strategies of women empowerment include - social empowerment, economic empowerment and gender justice i.e. to eliminate all types of discrimination against women and the girl child. Social empowerment of women is designed to create an enabling environment by adopting various affirmative policies and programmes for development women, besides providing them easy and equal access to all the basic minimum services to enable them to realize their full potential. Education being an important tool for social empowerment of women, specific schemes to provide incentives to promote education, especially amongst girl children and reduce the school dropout rates is being implemented. Two important schemes viz. 'Sarva Shiksha Abhiyan' and 'Mahila Samakhya' is being implemented by department of education is a special effort to stretch the reach of education especially to the girl child. In addition, the Department of Women Child Development implements the schemes of 'Condensed courses for educated and vocational training' and 'Distance Education Programme for Women' supplementing the efforts of Department of Education.

## WOMEN ENTREPRENEURSHIP IN INDIA

Women have a unique position in the society. Real Development cannot take place if it is bypasses women, who not only represent one half of a country's population but also the kernels around which societal revolution take place. Entrepreneurship enhances financial independence and self esteem of women. Around 50 per cent of India's population is women, yet business spheres such as trade, commerce and industry is still considered a male preserve. Entrepreneurial work has also been predominantly a man's world in India, are women. Among the states, Gujarat, Maharashtra and Karnataka have more women entrepreneurs.
Indian women are in no way inferior to men in all walks of life and they can be good entrepreneurs as men in the country. Therefore, it is essential to exploit the potential of Indian women. Women's participation in trade, industry and commerce, requiring entrepreneurship is still poor, mainly because of the problems associated with their gender roles. Therefore, promotion of entrepreneurship and economic empowerment of women poses a challenge to the government, funding agencies and non-government organizations. It is important for these people on the limitations faced by the women and to plan supporting systems to enhance the women entrepreneurship in India.

WOMEN ENTREPRENEURSHIP IN ANDHRA PRADESH

The scheme, Development of Women and Children in Rural Areas (DWCRA) launched in 1982-83, inaugurated an era for systematically organizing women in groups for providing them opportunities of self-employment on a sustained basis. Several thousands of rural women from the length and breadth of the country participate in this programme and they have taken up a number of trades under DWCRA banner.

## REASONS FOR WOMEN TO BECOME ENTREPRENEURS:

Technological developments provide a new method of establishing the enterprise. Several surveys conducted in different parts of the world regarding women entrepreneurship management show that women have provided to be good entrepreneurs for the following reasons (Rajendran.N, 2003).

1. Economic independence.
2. Establishing own credit idea.
3. Establishing own identity.
4. Achievement of excellence.
5. Building confidence.
6. Developing risk-taking ability.
7. Motivation.
8. Equal status in society.
9. Greater freedom and mobility.

Therefore there is ample evidence to suggest that if more women are motivated and are given the necessary encouragement and help for becoming entrepreneurs, they would contribute effectively in running viable commercial enterprises.
In 1999-2000, the Government of India launched "Swarna Jayanthi Grama Swarozgar Yojana" programme for promoting poverty alleviation through self-employment and the organization of poor into Self-Help Groups (SHG). Loans sanctioned under this scheme are treated as medium-term loans. The SHGs have given a new lease of life to the women in villages for their social and economic empowerment.

## SELF-HELP GROUPS

The SHG is an association of people belonging to similar socio-economic characteristic, residing in same locality. The SHGs are voluntary associations of people formed to attain some common goals. These are groups, which have similar social identity, heritage, caste or traditional occupations and come together for a common cause and manage resources for the benefit of the group members. The SHG is a group of rural poor who have volunteered to organize themselves into a group for eradication of poverty of the members. They agree to save regularly and convert their savings into a common fund. The member of the group agree to use this common fund and such other funds that they may receive as a group through a common management. SHGs are presently promoted by governments, development banks and voluntary agencies, with focus on social and economic issues, mainly thrift and credit programmes. They are also taking up issues relating to rural industries and modernization of agriculture.

## SIGNIFICANCE OF THE STUDY

To understand the rationale of the study, it is necessary to look into the past rural development strategies and how women figured therein. An analysis shows that in spite of women's contribution to production and other economic activities, particularly in the primary sector, women were not viewed as being within the production system and being economic contributors to their families. Hence their work was invisible to the development planners and policy makers. This is due to the inherent gender biases of a patriarchal society, in which only men are perceived as workers and as earners having the responsibility of maintaining the family. This bias is also reflected in the official documents. According to the 1981 census, the work participation rate for women is only 14 per cent compared to 52 per cent for men. Using a broader definition of work the $38^{\text {th }}$ round of the National Sample Survey (NSS) data show that the Work Participation Rate of women as 35 per cent and with the inclusion of domestic chores, collection of fuel, fodder and food, as 50 per cent.
Rural development and agricultural development strategies have utterly neglected women. Their role in the agricultural and rural economy has been marginalized. Though it has been physically more exacting, women being involved in more labour intensive work. As a result, women's potentials in development have remained underutilized, and due to this unequal treatment they again been pushed further back into the social hierarchical system.
Entrepreneurship is considered as one of the most important factors contributing to the industrial growth and thereby to the economic development of a society. While women comprise 50 per cent of Indian's population, only five per cent of them are operating in business. Average women's earnings in most countries are lower than those of men. In USA, the share of women enterprises has raised from 7.1 per cent in 1977 to 32.1 percent in 1990. Further it rose to 38 per cent in 1996. In India, the share of women owned enterprises grew from 1.58 per cent in 1979-80 to 9.65 per cent in 1995-96.
In India, entrepreneurship among women is of recent origin. Family background is an important factor that influences the woman to start their business. Money is not the sole objective among woman entrepreneurs to enter into the business. The studies relating to woman entrepreneurs in rural areas further reveal that training and awareness regarding different agencies have proved beneficial for women entrepreneurs in building confidence.
Self-employment is emerging to be a very important source of livelihood for women in Asia and South East Asia. This is due to paucity of employment opportunities. There is an additional factor that many types of paid employment are felt to be more suitable to male than females. India lives in villages and the country is not well developed industrially to provide employment to each and every citizen. It is also not possible to any government in any country to provide employment to all the people both males and females. There is an imperative need for adoption of programmes for the betterment of people based on self-help, self-supporting and replicable low cost employment generation models on a sustainable basis. In a country like India the earnings of the head of a family i.e. husband are generally inadequate to sustain the needs of the family. Added to this it is found in major parts of rural India, that the male member is addicted to various vices such as drinking, gambling etc. Under these circumstances, the meager earnings of the male member are not sufficient to provide hygienic food and better education to the children. As such there is an imperative need on the earnings of the female members by undertaking income generating self-employment activities.

With this objective in mind the Government of India has introduced DWCRA scheme with the assistance of UNICEF. An in-depth analysis of such a scheme is very essential to find out whether such a programme is contributing for women empowerment economically and socially. There is also a need to identify the loopholes in the scheme for making them operationally successful. In addition to the above, if a housewife becomes an earning member she can mould the family in a progressive manner, give proper education to children, and guide the husband in a smooth and pleasant way and also can take independent decisions for better prosperity. Not only that she can also establish a fame and exemplary character in the society and lit up the lazy souls with her strenuous efforts.
In India, it is a well-known fact that disguised unemployment in agriculture sector is more a rule rather than an exception. Therefore, there is an urgent need to provide alternative employment to the surplus labour particularly women working in the agriculture sector. The DWCRA scheme under these circumstances is a boon to the rural women.

## OBJECTIVE OF THE STUDY

The specific objectives of the study are:

1. To study the socio-economic profile of the rural women entrepreneurs in Srikakulam District of Andhra Pradesh.
2. To study the profile and nature of enterprises carried by rural woman entrepreneurs in the District under study.
3. To evaluate the performance of business enterprises carried by rural woman entrepreneurs.

## METHODOLOGY

Srikakulam District has been selected for the purpose of the present study. A list of DWCRA groups in all 38 mandals of the District has been collected from the official records of District Rural Development Agency (DRDA), Srikakulam. While selecting the DWCRA groups the following criteria have been followed:

1. The group must be in existence for more than five years.
2. The group must have undertaken income-generating activities.
3. The group must have bank linkage.

A sample of 130 DWCRA members has been selected randomly from among 95 DWCRA groups. Two members (president and secretary) from each group in 35 groups and one member either president or secretary from 60 groups were selected for the purpose of the present study. 2005-06 constituted the period of the study.
A schedule was designed and administered among the 130 respondents residing in 23 mandals of the District. The analysis of the findings is based on statistical tools such as average and percentages. Secondary data has been collected from official records of Ministry of Rural Development, Government of Andhra Pradesh, Hyderabad and NISIET, Ministry of Small Scale Industries, Government of India, Yosufguda, Hyderabad.

## SELF-HELP GROUPS MOVEMENTS IN ANDHRA PRADESH

As can be seen from Table-1 the growth of Self-Help Groups in Andhra Pradesh is remarkable. There are as many as $4,75,646$ groups with 65.40 lakhs members across the State. The total corpus fund of these groups is Rs. 1624.95 crores consisting of Rs. 904.421 crores as thrift and 720.53 crores as Government support to these groups. In addition to this, the banks in the State under NABARD-Bank Linkage Scheme disbursed an amount of Rs. 1716.81 crores. On an average, the total savings of each group in the State is Rs. 19,015 . Thus it can be concluded that the progress of the SHGs in the State is laudable.
In Andhra Pradesh more than 51 per cent of the DWCRA banks under bank linkage financed groups. This number is more than the all-India figure excluding that of Andhra Pradesh. Further 44 per cent of SHGs were disbursed Rs 1095 crores as bank loan as against the total amount of Rs. 2,438 crores at all- India level. 33,000 SHGs were provided reports to the bankers, that the recovery of loans is around 95 per cent as against 87 per cent when compared to other states. The comparative statement showing all-India Vs. Andhra Pradesh is shown in Table- 2.

## SOCIO-ECONOMIC PROFILE OF WOMEN ENTREPRENEURS

The emergence of women on the economic scene as entrepreneurs is a significant development in the emancipation of women and securing them a place in the society, which they have all along deserved. The hidden entrepreneurial potentials of women have gradually been changing with the growing sensitivity to the role and economic status in the society. Women are increasingly becoming conscious of their existence, their rights and their work situations. Today, women entrepreneurs represent a group of women who have broken away from the beaten track and are exploring new avenues of economic participation. Among the reasons for women to run organized enterprises are their skill and knowledge, their talents and abilities in business and a compelling desire of wanting to do something positive. What makes their arrival as well as achievements even more significant and commendable are the struggles they have to put up, frustrations they have to experience and the multiple handicaps they have to overcome to emerge as entrepreneurs at the early stage of managing their enterprises. It is hoped that the participation of women in economic activities would usher in an era of clean business ethics. The discussions, which follow, depict the profile of sample women entrepreneurs and their entrepreneurial performance.
While collecting the data with regards to the age of the respondents the researchers faced some difficulty in getting the exact age of the respondents. None of the respondents have her date of birth certificate. Under these circumstances, the researcher has depended on the oral information revealed by the respondents. This in turn was adjusted based on the physical appearance of the respondents.
Table-3 reveals that majority of the women respondents in the sample are illiterates and those who have formal education are studied primary and secondary education only. However their poor education did not act as a barrier to their entrepreneurial carrier. The monthly income of the majority of the husbands of the women respondents is on the lower side. The women members have no other option except to carry some income generating activity.
Table-4 revealed that there is an increase in the income levels in the case of 77.69 per cent of the respondents, while 23.31 per cent are able to provide education to their children with their savings. As regards to the personal hobbies of the women respondents it is found that 98.46 per cent of the respondents have the habit of seeing pictures, while 96.92 per cent of the respondents have the habit of visiting the bank premises. The phenomenon of watching television is found among 88.46 per cent of the respondents. It is surprising to note that 11.54 per cent of the respondents has the habit of reading Telugu newspaper, while a little over 19 per cent of the respondents have the habit of visiting government
offices, whenever the need arises without much depending on others. From the foregoing analysis, it can be concluded that there is sea change in the life styles of women after becoming member of SHGs.
As regards the standard of living of the women respondents it is found that 84.15 per cent are having ceiling fan, 64.62 per cent have possessed radio, 63.08 per cent have possessed LPG, and 39.23 per cent have possessed T.V. Thus, it can be concluded that the standard of living of the respondents measured in terms of ownership of consumer durables is satisfactory. The possession of these durables depends much upon the smooth and healthy growth of the business carried by these respondents.
The number of earning members in the family influences the income of the family which in turn to refits the purchasing power of the family. The maximum number of earning members in the family apart from the respondents is only two. There are as many as 86.15 per cent of the respondents who are having only one earning member in the families in addition to the respondents, while the remaining respondents are having two earning members each.

## PERFORMANCE EVALUATION

The concept of gender has been central to debates on how to empower women to improve quality of their life. Poverty is an overreaching factor and a reality of life for a vast majority of women in India. A corrective to such a situation is women's right to gainful employment. Apart from being a question of survival, this would increase their self-image and provide for greater anatomy within the household.
What were the main motives that led the entrepreneurs in our sample into petty business ventures? Were they forced to become entrepreneurs because of pull or push factors? Pull factors refer to opportunities being too attractive while push factors denote a response born out of extraneous compulsions. While glaring cases of pull or push factors are hard to come by in real life situations, there is almost always a mixture of the two. The respondents to be more specific about why they decided to venture into a career fraught with risks and uncertainties. Table- 5 shows distribution of respondents by type of business carried. It is clear from the table that 96 respondents accounting for 73.84 per cent are doing dairy business, while 16 respondents accounting for 12.31 per cent are doing sheep rearing business. The other respondents are doing business activities such as selling of forest products ( 2.31 per cent), cashew plantation ( 1.54 per cent), fish vending ( 2.31 per cent), milk collection and selling ( 3.07 per cent), pig rearing ( 2.31 per cent), and bullocks trading ( 2.31 per cent). Existence of demand for the finished goods is the main reason for selecting the present business in the case of 37.69 per cent of the respondents. The demand for milk from local and nearly hotel owners is the major reason for selecting dairy business by these respondents. Easy availability of raw materials locally such as grass, tree leaves etc., is the main reason for selecting the present business in the case of 35.39 per cent of their respondents. Respondents who are carrying dairy and sheep rearing business activities belong to this category. Hereditary nature of the business is the main reason in the case of 14.62 per cent of the respondents. Such respondents are found in the case of dairy, sale of forest products, fish vending, cashew plantation, pig rearing and sheep rearing.
The funds required for starting any business consist of own funds and borrowed funds. It is clear from the table-5 that as many as 76.90 per cent of the respondents started their business with both their own funds and borrowed funds and the remaining 23.10 per cent have started the business exclusively with borrowed funds; As regards loan repayment performance of the respondents, it is surprising to note that almost all the respondents are punctual in respect of repayment of group loan as well as bank loans. Thus it can be concluded that the loan repayment performance of the respondents of sample is laudable, and they should continue the same practice in future also.
As regards the extent of involvement of family members and fellow group members in taking business decisions in the case of 42 respondents (32.31 per cent) the decision making lies with the women entrepreneurs themselves, while the business decisions are made by their respective husband in the case of 18 entrepreneurs ( 13.85 per cent). 23 respondents are making joint decision of husband and wife and 43 respondents ( 33.07 per cent) are taking decisions with the help of the group members. Thus it can be concluded from the above analysis that majority of the women entrepreneurs are taking the business decisions by themselves without much depending on their family members.
Table-5 reveals that the net profit from business earned by 40 per cent of the respondents is between Rs.500/- to Rs.600/- per month, while 27 respondents are earning between Rs.600/- and Rs700/-. On an average each respondent is earning Rs. 609/- per month. Thus the income accrued from the business is almost on the lower side and the respondents should think in terms of expanding the business so as to earn more revenue from the business.
The accumulated savings of each member in the group varied between Rs. 1050/- to Rs.4000/-. On an average savings of the respondents is worked out to be Rs. 2245/-. As can be seen from the table-5 the total savings in the group of 71 respondents accounting for 54.62 per cent are between Rs. 2000/- and Rs. 3000/-, while that of 12 respondents ( 9.23 per cent) are between Rs. 3000/-andRs.4000/-. Thus it can be said that the savings of the respondents in the group are praiseworthy; and they should continue their savings as long as they remain as members of the group.
The activity-wise average income per month as can be seen from the table-5, reveals that the average monthly income is the highest in sheep rearing business (Rs. 709/-) followed by milk collection and selling (Rs. 675/-), fish vending (Rs. 667/-), cashew plantation and bullocks trading (Rs. 650/-), pig rearing (Rs. 633/-), dairy (Rs. 591/-), and sale of forest products (Rs. 433/-).
The respondents were asked to list out the major problems they have been facing in carrying their business. The discussion, which follows, depicts the type of problems being faced by them. It is surprising to note that 76 respondents accounting for 58.46 per cent expressed that they are not facing any problems in carrying their business, while 37 respondents representing 28.46 per cent who have been carrying dairy business expressed that they have been facing marketing problem i.e. they are not getting reasonable rate for their milk and 17 respondents ( 13.84 per cent) have been facing financial problem by way of inadequate capital. The inadequate credit from bank is the major reason for their finance problem.

## CONCLUSION

Women empowerment is a prerequisite for creating a good nation. If a women is empowered her competencies towards decision-making will surely influence her family's and society behaviour. The presence of these spillover effects will thus create a 'social multiplier', where aggregate power is greater than individual power. There is an emerging need to promote women empowerment among the rural women. Towards this end, delivery of micro finance to the micro enterprises plays a significant role. Rural women with low income and lack of knowledge of available banking facilities can do little facilities can do little for the growth of banking habits on their own. For this, a concrete effort is needed to be taken up by the society, the government and by bankers themselves to enhance the standard of women with regard to banking habits.

Imparting training to women in the realm of marketing and production go a long way in ameliorating their socio-economic lot. The Government has emerged as a major catalyst by way providing training incentives and other facilities to succeed particularly in rural areas to empower the women.
Poverty alleviation is the ultimate goal of any nation. Studies have shown that the delivery of micro finance to the poor is productive, effective and less costly, if they are organized into SHGs. Self-employment, which is the best employment in the wake of paucity of employment opportunities is emerging to be a very important source of livelihood for women in Asia and South East Asia. The SHG movement in India in general and Andhra Pradesh in particular has metamorphosis the rural economic scenario perceptibly. As a supplementary source of family income the SHGs proved to be a boom to the rural woman folk not only in enhancing their financial status but also promoting entrepreneurship among them.

TABLES

TABLE-1: STATUS OF SHGs IN ANDHRA PRADESH

| Particulars | Figures |
| :--- | :--- |
| Total Self Help Groups | $4,75,646$ |
| Number of women members (lakhs) | 65.40 |
| Thrift (Rs. in Crores) | 904.42 |
| Government Support (Rs. in crores) | 720.53 |
| Total corpus (Rs. in crores) | 1624.95 |
| Support under Bank Linkage (Rs. in crores) | 1716.81 |
| Average thrift of Groups |  |
| Source: The Hindu, 8.3.2008. p.6. |  |

Table-2 SHGs Linkage-All-India Vs Andhra Pradesh (Comparative Status up to 2007-08)

| Component | All India | Andhra Pradesh |
| :--- | :--- | :--- |
| Cumulative number of SHGs financed by banks | $7,17,360$ | $3,68,000$ |
| Cumulative Bank loan disbursed to SHGs (Rs. in crores) | 2,438 | 1,095 |
| Number of SHGs proved repeat finance by Banks during 2007-08 | $1,02,391$ | 33,000 |
| Average lon per SHGs by banks (Rs.) | 28,560 | 28,894 |
| Increase in the credit flow to SHGs over the previous year | $87 \%$ | $182 \%$ |
| On time repayment reported by participating banks. | Over 87\% | Over 95\% |

TABLE-3 DISTRIBUTION OF RESPONDENTS BY SOCIAL CATEGORY

| Particulars | No. of Respondents | Percentage |
| :--- | :--- | :--- |
| BASED ON SOCIAL CATEGORY: |  |  |
| Forward Caste | 4 | 3.08 |
| Backward Caste | 96 | 73.85 |
| Scheduled Caste | 10 | 7.69 |
| Scheduled Tribe | 20 | 15.38 |
| TOTAL | 130 | 100 |

TABLE-4 SOCIO-ECONOMIC DISTRIBUTION OF THE RESPONDENTS

| Particulars | No. of Respondents | Percentage |
| :--- | :---: | :---: |
| I. IMPACT OF BECOMING SHG MEMBERS |  |  |
| Rise in income | 101 | 77.69 |
| Education to children | 29 | 22.31 |
| TOTAL | 130 | 100.00 |
| II. PERSONAL HOBBIES OF THE RESPONDENTS |  |  |
| Reading news papers | 15 | 11.54 |
| Watching television | 115 | 88.46 |
| Seeing pictures | 128 | 98.46 |
| Visiting bank premises | 126 | 96.92 |
| Visiting government offices | 25 | 19.23 |
| III. OWNERSHIP OF CONSUMER DURABLES BY RESPONDENTS |  |  |
| Television | 51 | 39.23 |
| Radio | 84 | 64.62 |
| LPG | 77 | 59.23 |
| Mixy | 2 | 1.54 |
| Ceiling fan | 112 | 84.15 |
| Gold ornaments | 82 | 63.08 |

Table-5 PERFORMANCE EVALUTION OF MICRO ENTERPRISES

| Particulars | No. of Respondents | Percentage |
| :--- | :--- | :--- |


| I. TYPE OF BUSINESS |  |  |
| :---: | :---: | :---: |
| Dairy | 96 | 73.84 |
| Sheep rearing | 16 | 12.31 |
| Forest products | 3 | 2.31 |
| Cashew plantation | 2 | 1.54 |
| Fishing vending | 3 | 2.31 |
| Milk collection \& selling | 4 | 3.07 |
| Pig rearing | 3 | 2.31 |
| Bullocks trading | 3 | 2.31 |
| TOTAL | 130 | 100.00 |
| II. REASONS FOR CHOOSING THE PRESENT BUSINESS: |  |  |
| Raw material availability | 46 | 35.39 |
| Demand for finished goods | 49 | 37.69 |
| Inspiration to old groups | 1 | 0.77 |
| Hereditary occupation | 19 | 14.62 |
| Suitability of land and environment | 9 | 6.92 |
| Others | 6 | 4.61 |
| TOTAL | 130 | 100.00 |
| III. SOURCE OF FUNDS FOR STARTING AND RUNNING THE BUSINESS: |  |  |
| Own funds and borrowed funds | 100 | 76.90 |
| Borrowed funds | 30 | 23.10 |
| TOTAL | 130 | 100.00 |
| IV LOAN REPAYMENT PERFORMANCE: |  |  |
| GROUP LOAN: |  |  |
| Regular | 129 | 99.23 |
| Irregular | 1 | 0.77 |
| TOTAL | 130 | 100.00 |
| BANK LOAN: |  |  |
| Regular | 129 | 99.23 |
| Irregular | 1 | 0.77 |
| TOTAL | 130 | 100.00 |
| V. WHO TAKES BUSINESS DECISIONS? |  |  |
| Self | 42 | 32.31 |
| Husband | 18 | 13.85 |
| Joint | 23 | 17.69 |
| Self and group members | 43 | 33.07 |
| Others | 4 | 3.08 |
| TOTAL | 130 | 100.00 |
| VI. PROFITS EARNED FROM BUSINESS (per month) |  |  |
| Upto 300 | 2 | 1.54 |
| 300-400 | 8 | 6.15 |
| 400-500 | 21 | 16.15 |
| 500-600 | 52 | 40.00 |
| 600-700 | 27 | 20.77 |
| 700-800 | 19 | 14.62 |
| 800-900 | 1 | 0.77 |
| TOTAL | 130 | 100.00 |
| VII. TOTAL ACCUMULATED SAVINGS IN THE GROUP: |  |  |
| 1000-1500 | 23 | 17.69 |
| 1500-2000 | 24 | 18.46 |
| 2000-2500 | 43 | 33.08 |
| 2500-3000 | 28 | 21.54 |
| 3000-3500 | 10 | 7.69 |
| 3500-4000 | 2 | 1.54 |
| TOTAL | 130 | 100.00 |
| VIII. ACTIVITY WISE AVERAGE INCOME PER MONTH: |  |  |
| Dairy | 591 |  |
| Sheep rearing | 709 |  |
| Forest products | 433 |  |
| Cashew plantation | 650 |  |
| Fish vending | 667 |  |
| Milk collection and selling | 675 |  |
| Pig rearing | 633 |  |


| Bullocks trading | 650 |  |
| :--- | :--- | :---: |
| IX. PROBLEMS FACING IN BUSINESS: |  |  |
| Marketing problems | 37 | 28.46 |
| Inadequate capital | 17 | 13.08 |
| No problems | 76 | 58.46 |
| TOTAL | 130 | 100.00 |

## REFERENCES

1. Bandura (1986), "Social Foundation of Through", Prentice-Hall, Englewood Cliffs, New Jersey.
2. Karl, M. (1995), "Women and Employment: Participation and Decision Making", Zed Books Limed, London.
3. Biswas (1999), "Measuring Women's empowerment some methodological issues", Asia-Pacific Journal of Rural Development Vol. 9,

No.2, P.63-71.
4. International conference on Population and Development Report, 1994.
5. Asis Kumar Pain (2007), "Women empowerment in developing countries: The case of Pakistan, Maldives and Bhutan", the Icfai University Press, India, P.190-200.
6. Sudhir M.A et. all (2007), "Empowerment of rural women labour force", Anmol Publications Pvt., Ltd India.
7. Minakshi Sudarshan Mehta (2006), "Empowering rural women", Anmol Publications Pvt., Ltd, India.
8. Singh V.K and Sudershan K.N., (2007) "Population Education", Discovery Publishing House, New Delhi, India.
9. Dharmeja S.K. (2002), "Women Entrepreneurs: Opportunities, Performance, Problems", Deep Publications (P) Ltd., New Delhi, India.
10. Ghosh Piyali and Cheruvalath Reena (2006), "Progress of Female Entrepreneurs in Low Income Countries: A Theoretical Enquiry in India", The Icfai Journal of Entrepreneurship Development, Vol. 3, No.3, September, 2006, P.9.
11. Kumar Anil (2004), "Financing Pattern of Enterprises owned by women entrepreneurs", The Indian Journal of Commerce, Vol. 57, No. 2, April-June, P. 73.
12. Rajendra N (2003), "Problems and prospects of women entrepreneurs", SEDME, Vol.30, No.4, December, P. 40.
13. Raheem A (2006), "Role of SHGs", Yojana, Vol. 50, No.12, P.58.
14. Sharma Sheetal (2006), "Educated Women, Empowered Women", Yojana, Vol. 50, No.12, P.52.

# THE ROLE OF CELEBRITY ADVERTISING ON BRAND PREFERENCE 

# OKORIE NELSON <br> ASSISTANT ACADEMIC SECRETARY, DEPARTMENT OF MASS COMMUNICATION EDITORIAL ADVISER, STREAM MAGAZINE, DEPARTMENT OF MASS COMMUNICATION ASST. PROFESSOR, DEPARTMENT OF MASS COMMUNICATION COLLEGE OF DEVELOPMENT STUDIES COVENANT UNIVERSITY OGUN STATE 

ADEYEMI ADEROGBA LECTURER, DEPARTMENT OF MASS COMMUNICATION COLLEGE OF DEVELOPMENT STUDIES COVENANT UNIVERSITY OGUN STATE


#### Abstract

Celebrity advertising has been regarded as a strategic marketing communication tool that aids productivity of goods and services of firms or organization across the globe. Okorie (2010) has reasoned that advertising is the means to promote brands and create unshakeable consumer preference for the brand. The job of celebrity advertising is indeed to seduce one brand's loyal user and to persuade them to become users of one's own brand. This paper examined the perception of individuals to determine the role ofcelebrity advertising on brand preference. The method adopted in the study was a survey and its instrument for data collection was questionnaire. From the result of the study, five research questions was presented and analyzed.


## KEYWORDS

Celebrities, Advertising, brand, preference and consumers.

## INTRODUCTION

$\mathfrak{C}$elebrity advertising is a powerful communication tool of business to most firms and organization for them to be able to reach their target market across the globe(Belch \& Belch, 2001; Bovee and Thrill, 2003; Jobber,2003). Jefkin (1998) has posited that the average person is exposed to hundred of celebrity ad messages between the time he opens his eye in the morning and clicks off the light at night. In other words, it is brand communication tool whose sole aim is to promote advertised brands or services in the society.
In the Nigerian society, the use of celebrities in mainstream advertising is a common marketing communication strategy carried out by most multinationals or large organization so as to build and sustain brand equity for goods and services (Okorie, 2010) .In addition, companies or firms spend huge amount of money every year on advertising that is aimed at enhancing the productivity of the goods and services of the organization in the target market.. In such an approach, the advertiser gets a lot of help from personalities that possess certain phenomenal characteristics to tell the product's story. All the popularity, glamour and charisma attached to a movie star, a sports hero, a TV personality, or even a politician are sold and purchased as the product's own.
Firms or companies use celebrity endorsements for very good reasons. It has said that target prospects are more likely to choose goods and services endorsed by celebrities than those without such endorsements. It is believed that celebrities facilitate instant awareness and immediate attention (Menon and Louis, 2005). Many companies have had considerable successes using famous names and faces. For instance, Kanu Nwankwo leads the way, figuring in multi-category endorsements-from Peak Milk to Pepsi soft drink to USAIDS/NACA anti-AIDS campaign among a long list of other notable brands. Other high-profile endorsers include Banky W for Etisalat, Tuface Idibia for Airtel and Desmond Elliot for Tantalizers
The trend in the usage of celebrity advertising in the Nigerian society has engineered the interest of these researchers in focusing this study on the role of celebrity advertising in promoting preference for a brand, which Chi-Vita fruit juice was used as an example.

## HISTORY OF CHI-VITA JUICE

Chi-Vita juice is manufactured by the division of CHI Nigeria Limited, which is a subsidiary of Tropical General Investment Limited, incorporated in 1980 for the manufacturing and marketing of consumer products. The company has operated for 17 year in the food and beverage industry in Nigeria.
The firm installed ultra modem machineries within their factory complex at Isolo, Lagos. Among these equipments are facilities to extract and compound the concentrates into fruit drink and juices. Thereafter the beverage is processed into laminated aluminum foil pouches and tetra brick cartons under the brand name of CAPRISONNE and CHIVITA
In 1998, Chi-Vita juice was first advertised to the Nigerian society with the usage of a celebrity to endorse its uniqueness and quality. It made use of musical and movie celebrities to advertise the products, some of these celebrities are Jide Kosoko, Sunny Nneji, Omotola Jolade and lot of others.

## RESEARCH QUESTIONS

Ohaja (2003) expounds that research questions refer to a precise statement of the issues of the study. They can be presented in the form of questions it hopes to proffer solutions for. The research questions for the study are listed below:

1. What is the level of respondents' exposure to celebrity adverts on Chi -Vita?

What is the level of respondents 'preference of Chi-vita as a product?
Do the celebrity adverts have any influence on respondents' choice of Chi Vita?
How loyal are the respondents to the brand of Chi Vita juice?
5. What is the effect of changes in celebrity adverts on the respondents' preference for Chi Vita?

## METHOD

For the purpose of the study, the survey research method is used for a number of reasons. The survey method is a suitable method of getting views of people about why they behave in a particular way and how they will behave if given certain conditions. According to Kerlinger (1973) "survey research involves the psychological variables which include opinions and attitude on one hand and behavior on the other hand (p.87)." Similarly, according to Tejumaiye (2003), survey research involves the psychological variables which include opinion and attitude on one hand and behavior on the other. In essence, survey method provides positive information and they identify present conditions and point present needs. Basically, survey method is probably the best means of measuring attitude and opinion of a group too large to be observed directly. The instrument used by the investigator in the survey research method was questionnaire. Generally, a questionnaire is a data gathering instrument, which provides uniformed questions to be answered by respondents in written form.
The research study has a population of undergraduate students, post graduate students and lecturers in the University of Lagos, which constitute about 35,000 people as population and Lagos State polytechnic, with approximate 15,000 people as population. The selection of these tertiary institutions were determined with the use of simple random sampling technique, where all the tertiary institutions were given equal opportunity to be selected i.e. University of Lagos, Lagos State University, Pan African University, Wolex polytechnic and Adeniran Ogunsanya College of Education.
Out of a research population of approximately 35,000 people in the University of Lagos and 15,000 people in Lagos State polytechnic, 500 respondents which represent $1 \%$ of the entire population constitute the sample size of the study. It is believed that the number would represent the population of the study.
Owing to the impracticability of studying the entire population in research, sampling of the population is therefore important. Therefore, the investigator made use of stratified sampling technique to divide each tertiary institution into groups. This was stratified into the college of Science and Technology and the College of Development Studies. Then the researcher made use of multi -stage random sampling to further divide these groups to cluster samples for effective representation of the study. In a single tier cluster, the college was clustered into schools, there are six schools i.e. school of social sciences, school of environmental sciences, school of human resource, school of business, school of engineering and school of natural. The researcher used simple random sampling to select one school from each of the colleges.
In a two tier cluster, the schools were clustered to departments, and then two departments were selected in each tertiary institution by the use of simple random sampling technique.
In a three tier cluster, the departments were clustered to programs, and then simple random sampling technique was used to select two programs in each tertiary institution. The programme selected was Accounting and Computer engineering. Then, the researcher made use of the systematic sampling to select the student from the sampling frame. The research questions were analyzed with frequency tables and bar charts.

## RESULT

500 copies of questionnaire were administered, out of which 483 copies were retrieved. This represented a high response rate of $96.6 \%$ and a mortality rate of only $3.4 \%$. Of the number that were received and used, 260 respondents were males representing $53.8 \%$. While the remaining 223 respondents were females representing $46.2 \%$ of the total respondents who turned properly completed copies of the questionnaire.
In terms of age, 7 respondents (1.4\%) were between 35 and 44 years of age. 40 respondents representing $8.3 \%$ were between 25 and 34 , while 435 respondents representing $90.1 \%$ were between 15 and 24 .Table one below summarizes the age distribution thus:

TABLE 1: DEMOGRAPHIC DATA OF RESPONDENTS


Distribution of respondents according to their tertiary institution reveals that 300 respondents were from University of Lagos, which represents $60 \%$ of the total population of the study, while 200 respondents were from the Lagos State Polytechnic representing $40 \%$ of the total study population. Table 2 summarizes the distribution of respondents according to their tertiary institution.

TABLE 2: DISTRIBUTION OF RESPONDENTS ALONG THEIR TERTIARY INSTITUTIONS


| Valid | UNILAG | $60 . .0 \%$ |
| :--- | :--- | :--- |
|  | LASPOLY | $39.8 \%$ |
|  | Total | $99.8 \%$ |
| Missing | System | $.2 \%$ |
| Total |  | $100.0 \%$ |
|  |  | $N=483$ |

In terms of religious affiliation, 383 of the respondents are Christians representing $79.3 \%$ of the population study, while 99 of the respondents are Muslims representing $20.5 \%$ of the population study.
Table 3 shows that respondents view or listen to commercials on television or radio. From the table, 417 respondents or $85.7 \%$ of the respondents view or listen to adverts i.e. $32.5 \%$ of respondents indicated strongly agree, while $53.6 \%$ respondents indicated they agree that they view or listen to commercials. However, 19 respondents or $3.7 \%$ revealed they don't watch adverts on television or radio

TABLE 3: AUDIENCE EXPOSURE TO COMMERCIALS

| Categories |  | Percent |
| :--- | :--- | :--- |
| Valid | strongly agree | $32.5 \%$ |
|  | Agree | $53.2 \%$ |
|  | Undecided | $10.1 \%$ |
|  | Disagree | $3.5 \%$ |
|  | strongly disagree | $.4 \%$ |
|  | Total | $99.8 \%$ |
| Missing | System | $.2 \%$ |
| Total |  | $100 \%$ |
|  |  | $\mathrm{~N}=483$ |

More importantly, table 4 presented below shows that respondents view or listen to Chi Vita commercials. The table 4 reveals that 471 respondents or $94.5 \%$ of the respondents revealed that they view or listen to commercials on Chi Vita. Only, $3.4 \%$ of the respondents indicated that they don't view or listen to commercials on Chi Vita.

## RESEARCH QUESTION ANALYSIS

RESEARCH QUESTION 1: What is the level of respondent's exposure to celebrity adverts on Chi -Vita?
TABLE 4: AUDIENCE EXPOSURE TO CHI VITA COMMERCIAL

| Categories |  | Percent |
| :--- | :--- | :--- |
| Valid | strongly agree | $93.1 \%$ |
|  | Agree | $1.4 \%$ |
|  | Undecided | $1.9 \%$ |
|  | Disagree | $3.4 \%$ |
|  | Total | $99.8 \%$ |
| Missing | System | $.2 \%$ |
| Total |  | $100.0 \%$ |
|  |  | $\mathrm{~N}=483$ |

Table 5 provided the data on the effectiveness of the commercials on Chi Vita. Table 5 reveals that $90.6 \%$ of the respondents believe that the commercials are quite effective i.e. $14.8 \%$ respondents or 100 respondents indicated strongly agree, while 371 respondents indicated they agreed that the commercials on Chi Vita were effective. While, $1.2 \%$ of the respondents thought otherwise.

TABLE 5: AUDIENCE PERCEPTION TO THE EFFECTIVENESS OF CHI VITA COMMERCIALS

| Categories |  | Percent |
| :--- | :--- | :--- |
|  |  |  |
| Valid | strongly agree | $14.8 \%$ |
|  | Agree | $75.8 \%$ |
|  | Disagree | $9.2 \%$ |
|  | Total | $99.8 \%$ |
| Missing | System | $.2 \%$ |
| Total |  | $100.0 \%$ |
|  |  | $\mathrm{~N}=483$ |

## DISCUSSION

Several empirical studies reveal that advertising can provide invaluable support for other elements of the promotional mix by creating awareness and positive attitude towards the organization's products or goods and services. Bearden and Ingran (2003) noted that one advertising objective might be to increase brand awareness say from 10 to 35 percent of all consumers within a particular market. The finding was made exceptionally clear in the data result of research question 1 , which table 4 and 5 immensely represented. The statistical data in table 4 , revealed that 471 respondents or $94.5 \%$ of the respondents indicated that they view or listen to commercials on Chi Vita. However, $3.4 \%$ of the respondents indicated that they don't view or listen to commercials on Chi Vita. Table 5 reveals that $90.6 \%$ of the respondents believe that the commercials were effective in nature i.e. $14.8 \%$ respondents or 100 respondents indicated strongly agree; while 371 respondents indicated they agreed that commercials on Chi Vita were effective. However, $9.2 \%$ of the respondents disagreed that commercials on Chi Vita were not effective. From the statistical data, it can be inferred that the level of respondents' exposure to Chi Vita commercials was relatively high
RESEARCH QUESTION 2: What is the level of respondents 'preference of Chi-vita as a product?
Table 6 presents data on the audience purchase of Chi Vita juice. The table presented below revealed that 403 respondents representing $83 \%$ purchase Chi Vita juice. Nevertheless, 2 respondents representing $0.4 \%$ could not decide whether or not if they purchase Chi vita for consumption, this represented $0.4 \%$. Also, 77 respondents representing $18.9 \%$ revealed that they do not purchase Chi Vita as a choice of fruit drink at all.

TABLE 6: AUDIENCE PURCHASE OF CHI VITA JUICE

| Categories | Percent |  |
| :--- | :--- | :--- |
| Valid | strongly agree | $3.1 \%$ |
|  | Agree | $80.3 \%$ |
|  | Undecided | $.4 \%$ |
|  | Disagree | $15.9 \%$ |
|  | Total | $99.8 \%$ |
| Missing | System | $.2 \%$ |
| Total |  | $100.0 \%$ |
|  |  | $\mathrm{~N}=483$ |

In addition, table 7 shows the level of preference for Chi Vita as a product. The table presented 90.8 percent of the respondents prefer chi vita as a product, only $5 \%$ of the respondents didn't prefer Chi Vita as a product.

TABLE 7: AUDIENCE LEVEL OF PREFERENCE FOR CHI VITA

| Categories |  | Percent |  |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
| Valid | strongly agree | $20.4 \%$ |  |
|  | Agree | $70.4 \%$ |  |
|  | Disagree | $9.8 \%$ |  |
|  | Total | $99.8 \%$ |  |
| Missing | System | $.2 \%$ | $\mathrm{~N}=483$ |

## DISCUSSION

The study aimed to determine the level of brand loyalty and preference for Chi Vita juice. Interestingly, research question 2 helped provides answers to this research objective, which was revealed in table 6 and 7. Table 6 presented data on the audience purchase of Chi Vita juice, it revealed that 403 respondents or $83 \%$ of the study population purchase Chi Vita for consumption. Nevertheless, 2 respondents representing $0.4 \%$ of the study population remained undecided on whether they purchase Chi vita for consumption or not. Also, 77 respondents of the study population representing $18.9 \%$ revealed that some audiences do not purchase Chi Vita as a choice of fruit drink at all. Table 7 shows the level of preference for Chi Vita as a product. The table presented 90.8 percent of the population study that prefer chi vita as a product. However, it also revealed only $5 \%$ of the study population that do not prefer Chi Vita as a product. From the statistical data presented, it can be inferred that level of respondents' preference for the product was relatively high.
RESEARCH QUESTION 3: Do the celebrity adverts have any influence on respondents' choice of Chi Vita?
Table 8 and chart 1 provide statistical information about the influence of respondents' exposure to the media on their preference for Chi-Vita. From the table and chart presented below, 415 respondents or $86.1 \%$ of the study population revealed that media exposure influenced their preference. However, 67 respondents representing $13.9 \%$ remained undecided whether or not their exposure to the media had any influence on their preference for the fruit juice.

TABLE 8: MEDIA INFLUENCE ON RESPONDENTS' PREFERENCE FOR CHI-VITA

| Categories | Percent |  |
| :--- | :--- | :--- |
| Valid | strongly agree | $81.2 \%$ |
|  | Agree | $4.8 \%$ |
|  | Undecided | $13.9 \%$ |
|  | Total | $99.8 \%$ |
|  |  |  |


| Missing | System | $.2 \%$ |
| :--- | :--- | :--- |
| Total |  | $100.0 \%$ |
|  |  | $N=483$ |

## Media influence on respondents' preference for Chi-Vita



Table 9 presented data on the influence of celebrity adverts on respondents' preference for Chi Vita juice. From the table below, 185 respondents representing $48.3 \%$ of the sampled indicated that the usage of celebrity advert contributed to preference for Chi Vita. However, $51.6 \%$ respondents remained undecided on whether or not if the celebrity adverts contributed to their preference, while $9.9 \%$ of the respondents indicated that such adverts do not have any influence on their preference of fruit juice.

TABLE 9: INFLUENCE OF CELEBRITY ADVERTS ON RESPONDENTS' PREFERENCE FOR CHI VITA

| Categories | Percent |  |
| :--- | :--- | :--- |
| Valid | strongly agree | $17.4 \%$ |
|  | Agree | $30.9 \%$ |
|  | Undecided | $41.6 \%$ |
|  | Disagree | $9.5 \%$ |
|  | strongly disagree | $.4 \%$ |
|  | Total | $99.8 \%$ |
| Missing | System | $.2 \%$ |
| Total |  | $100.0 \%$ |
|  |  | $\mathrm{~N}=483$ |

## DISCUSSION

Table eight and chart one provides statistical information about media exposure contributing to the preference of Chi Vita. 415 respondents representing $86.1 \%$ of the study population revealed that media exposure contributed to their preference. While, 67 respondents representing $13.9 \%$ were undecided on whether or not media exposure contributed to their preference. This is in an agreement with Jefkins (1998), which states that the object of advertising is to charge or influence .It aims to persuade individuals to buy a product ' $A$ ' instead of product ' $B$ ' or promoting the habit of continuing to buy a product ' $A$ '. In addition, table nine presented data on the influence of celebrity adverts on respondents' preference for Chi Vita juice. From the table, it is clear that 185 respondents representing 48.3\% of the population indicated that the usage of celebrity advert contributed to preference for Chi Vita. However, $51.6 \%$ respondents remained undecided on the influence of celebrity adverts on their choice of Chi Vita, while $9.9 \%$ of the respondents indicated that adverts didn't contribute to their preference. From the statistical data presented, it can be inferred that celebrity adverts have significant influence on the respondents' choice of Chi Vita. RESEARCH QUESTION 4: How loyal are the respondents to the brand of Chi Vita juice?

Table 10 presents data on audience as brand loyal. The table presented below, revealed that 482 respondents of the study population, which represents $99.8 \%$ of the study population indicated to be brand loyal to products.

TABLE 10: AUDIENCE AS BRAND LOYAL TO PRODUCTS

| Categories |  | Percent |  |
| :--- | :--- | :--- | :--- |
|  |  |  |  |
| Valid | Agree | $99.0 \%$ |  |
|  | Disagree | $.8 \%$ |  |
|  | Total | $99.8 \%$ |  |
| Missing | System | $.2 \%$ |  |
| Total |  | $100.0 \%$ | $\mathrm{~N}=483$ |

Table 11 shows the data on audience as brand loyal to Chi Vita. The table showed that 317 respondents representing $65.7 \%$ of the study population are brand loyal to Chi Vita juice i.e. $16.8 \%$ of the respondents indicated that they strongly agreed that they were loyal to Chi Vita juice, while $48.9 \%$ of the respondents indicated that they agreed that they were loyal to the purchase of chi vita juice. However, 113 respondents representing $23.4 \%$ remained undecided on whether or not they were loyal to Chi Vita juice, while 49 respondents representing $10.3 \%$ of the population study indicated they were not loyal to Chi Vita brand

TABLE 11: AUDIENCE PURCHASE OF CHI VITA AS BRAND LOYAL

| Categories | Percent |  |
| :--- | :--- | :--- |
|  | Valid | strongly agree |
|  | Agree | $16.8 \%$ |
|  | Undecided | $48.9 \%$ |
|  | Disagree | $23.4 \%$ |
|  | strongly disagree | $7.0 \%$ |
|  | Total | $9.3 \%$ |
| Missing | System | $.6 \%$ |
| Total |  | $100.0 \%$ |
|  |  | $\mathrm{~N}=483$ |

## DISCUSSION

Most scholars in the field of marketing communication have reasoned that brand loyalty is the ultimate goal a company set for a branded product. It is seen as a consumer's preference to buy a particular brand in a product category. This occurs because consumers perceive that the brand offers the right price, quality and need. Research question 4 aimed to find out how loyal are the respondents to the brand of Chi Vita juice? From the available data presented in table 10, about 482 respondents representing $99.8 \%$ indicated that they were brand loyal to various categories of products. In addition, table 11 shows the data on audience as brand loyal to Chi Vita. It revealed that 317 respondents representing $65.7 \%$ were brand loyal to Chi Vita juice. $16.8 \%$ of the respondents indicated that they strongly agreed that they were loyal to Chi Vita juice, while $48.9 \%$ of the respondent indicated that they agreed that they were loyal to the purchase of chi vita juice. In addition, $23.4 \%$ of the respondents remained undecided of loyalty to Chi Vita juice, while 49 of the respondents representing $10.3 \%$ indicated they were not loyal to Chi Vita brand. From the statistical data presented, it can be inferred that overwhelming majority of respondents were brand loyals to Chi Vita.
RESEARCH QUESTION 5: What is the effect of changes in celebrity ad on the respondents' preference for Chi Vita?
Table 12 presents data on the awareness level of changes in celebrities' endorsement of Chi-Vita. From the table presented below, 475 respondents representing $98.4 \%$ indicated that they are aware of the changes in celebrities endorsement i.e. $1.9 \%$ of the respondents indicated they strongly agreed, while $96.9 \%$ indicated that they agreed that they are aware of changes in the use of celebrities. However, 6 respondents representing $1.2 \%$ of the study population indicated they aren't aware of any changes in the use of celebrities in Chi Vita juice advert

TABLE 12: AWARENESS LEVEL OF CHANGES IN THE USE OF CELEBRITIES

| Categories | Percent |  |
| :--- | :--- | :--- |
|  |  |  |
| Valid | strongly agree | $1.9 \%$ |
|  | Agree | $96.5 \%$ |
|  | Undecided | $.2 \%$ |
|  | Disagree | $1.2 \%$ |
|  | Total | $99.8 \%$ |
| Missing | System | $.2 \%$ |
| Total |  | $100.0 \%$ |
|  |  | $\mathrm{~N}=483$ |

Table 13 provides data on the changes in the contribution of celebrity adverts to preference of the product. From the table, 474 respondents representing $99 \%$ indicated that changes contributed to their preference of Chi Vita juice. However, $1.4 \%$ of the study population were undecided on whether such changes influenced their preference of the product.

TABLE 13: INFLUENCE OF CHANGES IN CELEBRITY ADVERTS ON PREFERENCE OF CHI VITA

| Categories | Percent |  |
| :--- | :--- | :--- |
|  |  |  |
|  | Valid | strongly agree |
|  | Agree | $.47 .6 \%$ |
|  | Undecided | $1.4 \%$ |
|  | Total | $99.4 \%$ |
| Missing | System | $.6 \%$ |
| Total |  | $100.0 \%$ |
|  |  | $\mathrm{~N}=483$ |

## DISCUSSION

In the Nigerian society, marketers have been using celebrities in commercials, print campaigns and promotions for years. Menon and Louis (2005) have noted that celebrities get the viewer's attention; but whether they work to sell the product depends on proper celebrity casting. Selecting the right star to "pitch" your product means finding the person to whom your buyers can relate - the person your buyers want to believe. In other words, selecting a celebrity requires a deliberate planning as well as research so as to select the appropriate celebrity to reach the target audience. The Chi Company, the producer of Chi-Vita fruit juice has been changing its celebrities yearly or once every two years, this happens as a result of the company's desire to derive maximum benefit from the celebrity adverts. Research question five was to find out the effect of changes in celebrity ad on the respondents' preference for Chi Vita. Table twelve presents data on the awareness level of changes in the use of celebrities. It revealed that 475 respondents representing $98.4 \%$ of the population of the study indicated that they are aware of the changes in the use of celebrities i.e. $1.9 \%$ indicated they strongly agreed, while $96.9 \%$ indicated that they agreed that they are aware of changes in the use of celebrities. However, 6 respondents representing $1.2 \%$ indicated they aren't aware of the changes in the use of celebrities in Chi Vita juice advert. Table thirteen provides data on the changes in celebrity adverts contribution to preference to the product. From the table, 474 respondents representing $99 \%$ indicated that changes in the use of celebrity contributed to their preference for the product. However, $1.4 \%$ of the study population remained undecided on whether or not such changes contributed to their preference for the product. From the statistical data presented, it can therefore be inferred that changes in celebrity adverts contributed significantly to the respondents' preference for Chi Vita.

## CONCLUSION

In the world of business and marketing communication, celebrity advertising performs a pivotal role in brand management and choice making. The role of celebrity advertising is very essential for any firm that wants to engage in the selling or transaction of goods and services in the society. Beside the persuasive nature of advertising, celebrity advertising exerts information that reinforces brand values as well as deliberately projecting a good or service to a particular target audience in an excellent light, in which consumers become favorably disposed to a product. . It performs a cardinal function of promoting the organizational goods or services, generating revenue or profit for the organization as well as projects a positive image of the firm and the product to individuals in the Nigerian society.

## REFERENCES

Bearden, O. and Ingran, L.(2003).Marketing:principles and perspectives.New York,USA: McGraw Hill
Belch, G. and Belch, M.(2001).Advertising and promotion :An intergrated marketing communication.New York, USA: McGraw Hill Berkowitz, N .Kerin, A. Rudelius, W. \& Hartley, W..(2003).Marketing.Ney York, USA: McGraw Hill Company
Berkowitz, N. and Rudelius, W.(2003). Marketing. New York, USA: McGraw Hill Company
Bovee, L. \& Aren, W.(1992). Contemporary Marketing .Illinois, USA: Irwin
Bovee, L. \&Thrill, V.(2003). Marketing .New York, USA: McGraw Hill Company
Cannon, L. (1998). Marketing. .New York, USA: McGraw Hill Company
Cole, H. (1979). Advertising practice. Chicago, USA: Pearsson Publishing
Daramola, I.(2003).Introduction to mass communication. Lagos,Nigeria :Rotham Press Ltd
Doghudge, M. (1985). Advertising.New York, USA: Sage Publishing.
Duncan, T. (2005). Principle of advertising and IMC. New York, USA: McGraw Hill Company
Hawkin, D. Best, J. \& Coney, A.(2003).Consumer behavior:Building marketing strategy New York, USA: McGraw Hill Publishing Itd Jefkins, F.(1998).Advertising. New York, USA: McGraw Hill Publishing Itd.
Jobber, D.(2003). Marketing. New York, USA:McGraw Hill Publishing Itd.
Kerin, R. \& Berkowitz, E.(2004). Marketing. New York, USA. McGraw Hill Publishing Itd. College
Lancaster, G. \&Reynolds, P.(1998).Marketing.London, UK: MPG Book Itd.
Lancestern and Shyford(2005). Consumer behavior in Psychology.London, UK: London, Cambridge University Press.
Lindstrom, M.(2005). Brand sense: Build powerful brands through touch, taste, smell, sight, and sound. New York: Free Press
Menon, M. \& Louis, E. (2005). Celebrity Advertising: An Assessment of Its Relative Effectiveness. Retrieved on $2^{\text {nd }}$ May 2008 from http://www.ask.com
White, R.(2000).Advertising. Cambridge, Britain: Pearson Education Itd
Zikmund. G. \& D’Amico .(2002). Marketing.New York, USA:McGraw Hill Publishing Itd.

# WOMEN BUILDING BUSINESSES IN A MAN'S WORLD - THE SAGA OF WOMEN ENTREPRENEURSHIP 

J. EDUKONDALA RAO<br>FACULTY MEMBER, DEPARTMENT OF MARKETING MANAGEMENT<br>UNIVERSITY OF GONDAR<br>ETHIOPIA, AFRICA


#### Abstract

Running a one-person business is a creative, flexible and challenging way to become your own boss and chart your own future. It is about creating a life, as it is about making a living. It takes courage, determination and foresight to decide to become an entrepreneur. From the relatively safe cocoon of the corporate world, where paychecks arrive regularly, you will be venturing into the unchartered territories of business. Historically, entrepreneurship has been a male-dominated pursuit.The Indian sociological set up has been traditionally a male dominated one. Women are considered as weaker sex and always made to depend on men folk in their family and outside, throughout their life. They are left with lesser commitments and kept as a dormant force for a quite long time. The Indian culture made them only subordinates and executors of the decisions made by other male members, in the basic family structure. While at least half the brainpower on earth belongs to women, women remain perhaps the world's most underutilized resource. The traditional set up is changing in the modern era. The transformation of social fabric of the Indian society, in terms of increased educational status of women and varied aspirations for better living, necessitated a change in the life style of Indian women. Woman is no longer the fairer or the weaker gender. She has competed with man and successfully stood up with him in every walk of life and business is no exception for this. Several women entrepreneurs are working hard to prove that when it comes to starting and sustaining a business, they are second to none. This paper speaks about women entrepreneurship in India Opportunities \& Challenges - Work life balance - Schemes for promotion \& development of women entrepreneurship in India - Successful women entrepreneurs in India, etc.


## KEYWORDS

Entrepreneurship, Women, Business, Gender.

## INTRODUCTION

むunning a one-person business is a creative, flexible and challenging way to become your own boss and chart your own future. It is about creating a life, as it is about making a living. It takes courage, determination and foresight to decide to become an entrepreneur. From the relatively safe cocoon of the corporate world, where paychecks arrive regularly, one will be venturing into the unchartered territories of business.
Historically, entrepreneurship has been a male-dominated pursuit.The Indian sociological set up has been traditionally a male dominated one. Women are considered as weaker sex and always made to depend on men folk in their family and outside, throughout their life. They are left with lesser commitments and kept as a dormant force for a quite long time. The Indian culture made them only subordinates and executors of the decisions made by other male members, in the basic family structure. While at least half the brainpower on earth belongs to women, women remain perhaps the world's most underutilized resource.
The traditional set up is changing in the modern era. The transformation of social fabric of the Indian society, in terms of increased educational status of women and varied aspirations for better living, necessitated a change in the life style of Indian women. Woman is no longer the fairer or the weaker gender. She has competed with man and successfully stood up with him in every walk of life and business is no exception for this.

## "WOMEN" AS ENTREPRENEURS IN INDIA

Women owned businesses are highly increasing in the economies of almost all countries. The hidden entrepreneurial potentials of women have gradually been changing with the growing sensitivity to the role and economic status in the society. Skill, knowledge and adaptability in business are the main reasons for women to emerge into business ventures. 'Women Entrepreneur' is a person who accepts challenging role to meet her personal needs and become economically independent. A strong desire to do something positive is an inbuilt quality of entrepreneurial women, who is capable of contributing values in both family and social life. With the advent of media, women are aware of their own traits, rights and also the work situations. The glass ceilings are shattered and women are found indulged in every line of business from pappad to power cables. The challenges and opportunities provided to the women of digital era are growing rapidly that the job seekers are turning into job creators. They are flourishing as designers, interior decorators, exporters, publishers, garment manufacturers and still exploring new avenues of economic participation.
The emergence of women entrepreneurs and their contribution to the national economy is quite visible in India. The number of women entrepreneurs has grown over a period of time, especially in the 1990s. Women entrepreneurs need to be applauded for their increased utilization of modern technology, increased investments, finding a niche in the export market, creating a sizable employment for others and setting the trend for other women entrepreneurs in the organized sector. In India, Several women entrepreneurs are working hard to prove that when it comes to starting and sustaining a business, they are second to none.
While women entrepreneurs have demonstrated their potential, the fact remains that they are capable of contributing much more than what they already are. In order to harness their potential and for their continued growth and development, it is necessary to formulate appropriate strategies for stimulating, supporting and sustaining their efforts in this direction. Such a strategy needs to be in congruence with field realities, and should especially take cognizance of the problems women entrepreneurs face within the current system.

WOMEN ENTREPRENEURSHIP IN INDIA

| States | No of Units Registered | No. of Women Entrepreneurs | Percentage |
| :---: | :---: | :---: | :---: |
| Tamil Nadu | 9618 | 2930 | 30.36 |
| Uttar Pradesh | 7980 | 3180 | 39.84 |
| Kerala | 5487 | 2135 | 38.91 |
| Punjab | 4791 | 1618 | 33.77 |
| Maharastra | 4339 | 1394 | 32.12 |
| Gujarat | 3872 | 1538 | 39.72 |
| Karnataka | 3822 | 1026 | 26.84 |
| Madhya Pradesh | 2967 | 842 | 28.38 |
| Other States \& UTS | 14576 | 4185 | 28.71 |
| Total | 57,452 | 18,848 | 32.82 |

## INDIAN WOMEN \& THEIR CHARACTERISTICS

The Indian women have basic characters in themselves in the present sociological and cultural setup as follows.
> Indian women are considered as Sakthi, which means source of power.
> Effectively coordinating the available factors and resources.
> Efficient execution of decisions imposed on them
> Clear vision and ambition on the improvement of family and children.
> Patience and bearing the sufferings on behalf of others and
> Ability to work physically more at any age.

## WOMEN ENTREPRENEURS \& CHALLENGES ENCOUNTERED

Indian women entrepreneurs are facing some major challenges as follows

1. The greatest deterrent to women entrepreneurs is that they are women. A kind of patriarchal - male dominant social order is the building block to them in their way towards business success. Male members think it a big risk financing the ventures run by women. 2. The financial institutions are skeptical about the entrepreneurial abilities of women. The bankers consider women loonies as higher risk than men loonies.
2. Entrepreneurs usually require financial assistance of some kind to launch their ventures. The women entrepreneurs lack access to external funds due to their inability to provide tangible security
3. Women's family obligations also bar them from becoming successful entrepreneurs in both developed and developing nations. The financial institutions discourage women entrepreneurs on the belief that they can at any time leave their business and become housewives again.
4. Indian women give more emphasis to family ties and relationships. Married women have to make a fine balance between business and home. More over the business success is depends on the support the family members extended to women in the business process and management.
5. Another argument is that women entrepreneurs have low-level management skills. They have to depend on office staffs and intermediaries, to get things done, especially, the marketing and sales side of business.
6. The male - female competition is another factor, which develop hurdles to women entrepreneurs in the business management process. Despite the fact that women entrepreneurs are good in keeping their service prompt and delivery in time, due to lack of organizational skills compared to male entrepreneurs women have to face constraints from competition. The confidence to travel across day and night and even different regions and states are less found in women compared to male entrepreneurs. This shows the low level freedom of expression and freedom of mobility of the women entrepreneurs.
7. Knowledge of alternative source of raw materials availability and high negotiation skills are the basic requirement to run a business. Getting the raw materials from different souse with discount prices is the factor that determines the profit margin. Lack of knowledge of availability of the raw materials and low-level negotiation and bargaining skills are the factors which affect women entrepreneurs business adventures.
8. Knowledge of latest technological changes, know how, and education level of the person are significant factor that affect business. The literacy rate of women in India is found at low level compared to male population. They are ignorant of new technologies or unskilled in their use, and often unable to do research and gain the necessary training.
9. Low-level risk taking attitude is another factor affecting women folk decision to get into business.
10. Achievement motivation of the women folk found less compared to male members. The low level of education and confidence leads to low level achievement and advancement motivation among women folk to engage in business operations and running a business concern.
11. Finally high production cost of some business operations adversely affects the development of women entrepreneurs. The installation of new machineries during expansion of the productive capacity and like similar factors dissuades the women entrepreneurs from venturing into new areas.

## WOMEN ENTREPRENEURS \& THE BALANCING ACT

It is estimated that more than $60 \%$ of self-employed women can be described as "lifestyles." This means that business owners are not actively looking for growth opportunities but rather choose entrepreneurship because it is the best way to balance work and family demands. The ability to balance work and family seems to produce positive side effects and happier women.

1. Keep the Right Perspective: Relationships are the most valuable aspect of life. Our happiness, self-esteem, and yes, even the ability to work well, are all influenced by the quality of relationships in our lives. Work and business merely supports our relationships. Remembering this will give you the proper perspective, keep you grounded and help you make the best decisions in both work and family.
2. Develop a Business Mindset: Treat your work with value and respect. Show your family that it is something that is important to you, and that you are doing everything to see it succeed. If you show them that your work should be valued and respected, your family will also begin to respect your business.
3. Let your kids understand the importance of your Business: Let your kids know how important your business is, and its contribution to your family. Tell them the benefits they can get from your working at home and running this business Of course, how you tell it to them depends on their age. To high school kids, you can explain the financial contribution of this business to your family, including the money needed for their college education. To toddlers, on the other hand, you can simply say that you need to work so you can buy them toys (very effective for my toddlers).
4. Get your Family's Commitment: Sit down with your spouse and children and discuss why you started working from home. Let them know how this business can provide for the needs of the family, including food, their clothes, education, and even the roof over their heads. Then stress the importance of being able to get your work done, and that you need their support to be able to do this.
5. Set a Schedule for your Work: Try to keep regular working hours for your business. Having a set schedule will show your business when to expect you working. Even if it is split throughout the day - two hours in the morning, break, then a couple of hours in the afternoon - keep to those hours. Tell your family and kids about your work hours, and let them know that you will not be available to spend family time during those hours, unless previously scheduled. If you must work outside of your scheduled hours, let the family know. Explain to your family why you need to work later than usual. But try to compensate to them and give them extra time that they deserve.

## BUILDING WOMEN ENTREPRENEURS

Right efforts on from all areas are required in the development of women entrepreneurs and their greater participation in the entrepreneurial activities. Following efforts can be taken into account for effective development of women entrepreneurs.

1. Consider women as specific target group for all developmental programmes.
2. Better educational facilities and schemes should be extended to women folk from government part.

Adequate training programme on management skills to be provided to women community.
Encourage women's participation in decision-making.
5. Vocational training to be extended to women community that enables them to understand the production process and production management.
6. Skill development to be done in women's polytechnics and industrial training institutes. Skills are put to work in training-cum-production workshops.
7. Training on professional competence and leadership skill to be extended to women entrepreneurs.
8. Training and counselling on a large scale of existing women entrepreneurs to remove psychological causes like lack of self-confidence and fear of success.
9. Counselling through the aid of committed NGOs, psychologists, managerial experts and technical personnel should be provided to existing and emerging women entrepreneurs.
10. Continuous monitoring and improvement of training programmes.
11. Activities in which women are trained should focus on their marketability and profitability.
12. Making provision of marketing and sales assistance from government part.
13. To encourage more passive women entrepreneurs the Women training programme should be organised that taught to recognize her own psychological needs and express them.
14. State finance corporations and financing institutions should permit by statute to extend purely trade related finance to women entrepreneurs.
15. Women's development corporations have to gain access to open-ended financing.
16. The financial institutions should provide more working capital assistance both for small scale venture and large scale ventures.
17. Making provision of micro credit system and enterprise credit system to the women entrepreneurs at local level.
18. Repeated gender sensitization programmes should be held to train financiers to treat women with dignity and respect as persons in their own right.
19. Infrastructure, in the form of industrial plots and sheds, to set up industries is to be provided by state run agencies.
20. Industrial estates could also provide marketing outlets for the display and sale of products made by women.
21. A Women Entrepreneur's Guidance Cell set up to handle the various problems of women entrepreneurs all over the state.
22. District Industries Centres and Single Window Agencies should make use of assisting women in their trade and business guidance.
23. Programmes for encouraging entrepreneurship among women are to be extended at local level.
24. Training in entrepreneurial attitudes should start at the high school level through well-designed courses, which build confidence through behavioral games.
25. More governmental schemes to motivate women entrepreneurs to engage in small scale and large-scale business ventures.
26. Involvement of Non Governmental Organizations in women entrepreneurial training programmes and counselling.

## CONCEPT OF WOMEN ENTREPRENEUR ENTERPRISE

" A small scale industrial unit or industry -related service or business enterprise, managed by one or more women entrepreneurs in a concern, in which they will individually or jointly have a share capital of not less than $51 \%$ as shareholders of the private limited company, members of co-operative society".

## CATEGORIES OF WOMEN ENTREPRENEURS

- Women in organized \& unorganized sector
- Women in traditional \& modern industries

Women in urban \& rural areas

- Women in large scale and small scale industries.
- Single women and joint venture.


## CATEGORIES OF WOMEN ENTREPRENEURS IN PRACTICE IN INDIA

FIRST CATEGORY

- Established in big cities
- Having higher level technical \& professional qualifications
- Non-traditional Items
- Sound financial positions
- SECOND CATEGORY
- Established in cities and towns
- Having sufficient education
- Both traditional and non-traditional items
- Undertaking women services-kindergarten, crèches, beauty parlors, health clinic etc
- THIRD CATEGORY
- Illiterate women
- Financially week
- Involved in family business such as Agriculture, Horticulture, Animal Husbandry, Dairy, Fisheries, Agro Forestry, Handloom, Power loom etc.


## SUPPORTIVE MEASURES FOR WOMEN'S ECONOMIC ACTIVITIES AND ENTREPRENEURSHIP

- Associations Direct \& indirect financial support
- Yojna schemes and programmes
- Technological training and awards
- Federations

DIRECT \& INDIRECT FINANCIAL SUPPORT

- Nationalized banks
- State finance corporation

State industrial development corporation
District industries centers
Differential rate schemes

- Mahila Udyug Needhi scheme
- Small Industries Development Bank of India (SIDBI)
- State Small Industrial Development Corporations (SSIDCs)


## YOJNA SCHEMES AND PROGRAMME

- Nehru Rojgar Yojna
- Jacamar Rojgar Yojna
- TRYSEM
- DWACRA


## SUCCESSFUL WOMEN ENTREPRENEURS IN INDIA

Many leading BusinessWomen in India have been proving their mettle in their respective fields like Akhila Srinivasan, Managing Director, Shriram Investments Ltd Chanda Kocchar, Executive Director, ICICI Bank Ekta Kapoor, Creative Director, Balaji Telefilms Jyoti Nayak, President , Lijjat Papad Kiran Mazumdar-Shaw, Chairman \& Managing Director, Biocon. Naina Lal Kidwai, Deputy CEO, HSBC Preeta Reddy, Managing Director, Apollo Hospitals Renuka Ramnath, CEO, ICICI Ventures Ritu Kumar, Fshion Designer Ritu Nanda, CEO, Escolife
11. Shahnaz Hussain, CEO, Shahnaz Herbals, etc

## CONCLUSION

Independence brought promise of equality of opportunity in all sphere to the Indian women and laws guaranteeing for their equal rights of participation in political process and equal opportunities and rights in education and employment were enacted. But unfortunately, the government sponsored development activities have benefited only a small section of women. The large majority of them are still unaffected by change and development activities.
Women sector occupies nearly $45 \%$ of the Indian population. The literary and educational status of women improved considerably during the past few decades. More and more higher educational and research institutions are imparting Knowledge and specialization. At this juncture, effective steps are needed to provide entrepreneurial awareness, orientation and skill development Programs to women.

# COMMUNITY DEVELOPMENT INITIATIVES IN ENGINEERING COLLEGES IN BENGALURU, INDIA 

PROF. B.N.BALAJI SINGH<br>CHIEF MENTOR<br>TROIKA CONSULTANTS<br>BENGALURU


#### Abstract

There is a need for imparting students enrolled in professional courses discipline-specific competences while preparing them for lives of moral and civic responsibility. This is possible only by creating awareness in the managements about the need for Community Development Initiatives and sensitizing the faculties towards the presence of such initiatives in their colleges. In India private managements, private managements with government financial aid and government themselves own the engineering colleges. Thus, the calibre and mindset of these faculties are different. Hence a research study was conducted to find out the ground realty about the faculty awareness and involvement in Community Development Initiatives. The data for the study was collected from the faculty working in engineering colleges run by different types of managements in Bengaluru, India. Responses were collected through a structured questionnaire. Chi-square test and ANOVA single factor are used for testing the hypothesis. It is found that there is no significant variation on the opinion of the faculties under different managements on the presence or otherwise of community development initiatives in their institutions, the types of initiatives, their own involvement in the same, and their role in influencing the students. These findings motivate the managements and the faculties in preparing students of engineering colleges for lives of moral and civic responsibility besides discipline-specific competences which has not been formally institutionalised in this country.


## KEYWORDS

Discipline-Specific Competences, Moral and Civic Responsibility, Community Development Projects, Indian Engineering Colleges.

## INTRODUCTION

$\mathfrak{T}$here is a dichotomy between the missions of higher education; either giving students discipline-specific competence or preparing students for lives of moral and civic responsibility. Students enrolled in professional courses are a privileged lot; they cannot afford to neglect their responsibilities to the society. We must sensitize the faculties towards the presence of Community Development initiatives in their colleges and must play a role in making them a success through student's involvement. In India private managements, private managements with government financial aid and government themselves own the Engineering Colleges. Thus, the calibre and mindset of these faculties are different.

## IMPORTANCE OF THE STUDY

A research study was conducted to find out the ground realty about the faculty awareness and involvement in Community Development initiatives. The findings provide a feed back to the managements of Engineering Colleges about the present status of Community Development initiatives and the action to be taken to bridge the gap.
These findings also help to motivate in preparing students of Engineering Colleges for lives of moral and civic responsibility besides disciplinespecific competences which has not been formally attempted.

## REVIEW OF LITERATURE

The objectives of higher education viz. to prepare the students for life and living seem to clash with creating in them awareness about social responsibility and the need for playing a role in Community Development. This problem is not easy to resolve due to four probable reasons (Andrzejewski \& Alessio, 1999).
First, many educators, and policymakers isolate themselves from immediate consequences of global, ethical, and social problems. Second, these people tend to think that we can have little or no influence on the said issues. Third conventionally accepted beliefs embedded in a traditional curriculum which has been taught to the teachers recommends not to include conflicting political issues and finally, educators have not usually been taught about issues of social and global responsibility in their own educational experiences.
Hosmer's study (1999) shows, many people who are active in teaching and research in Business Ethics believe that neither their teaching nor their research 'count' for merit in relation to salary increases and promotion/tenure decisions at their institutions, and that few enjoy high levels of support from deans, faculty, or students. This is true of engineering faculty also whose performance appraisal for pay increase or promotions does not include their role in Community Development initiatives either at their personal level or at encouraging the students to do so.
Wilhite and Silver's (2005) article, 'A false dichotomy for higher education: Educating Citizens vs. Educating Technicians' and Macfarlane's (2005) paper on 'The disengaged academic: The retreat from citizenship' highlight the dichotomy between the mission of higher education: either giving students discipline-specific competence or preparing students for lives of moral and civic responsibility necessary to support a democratic society.
As Jongh and Prinsloo (2004, p. 118-119) highlight:
There is a need to move away from a measured, linear curriculum to a 'Transformatory' curriculum. Transformatory education has as its starting point that 'for learners to change their meaning schemes (specific beliefs, attitudes, and emotional reactions) they must engage in critical reflection on their experiences, which in turn leads to a perspective transformation'.

Further, at its Johannesburg meeting, the United Nations decided to name the period from 2005 to 2014 as the Decade of Education for Sustainable Development. Issues and concerns regarding Community Development occupy a high place in the agenda for sustainable development.
A study made by the European Academy of Business in Society (EBIAS, 2005) reveals the fact that the recent educational programmes are mainly designed for corporate social responsibility (CSR) rather than citizenship.
Matten and Moon's (2004) conducted a survey in 2003 to analyse the practice of European educational programmes in business ethics and sustainability. The study consisted of the responses of 65 institutions across Europe highlights the fact that CSR in European business education is partly grounded in the environmental agenda, followed with a concern with ethics and social well-being.
The European Commission (2002) reported that CSR is intrinsically linked to the concept of sustainable development: businesses need to integrate the economic, social, and environmental impact in their operations; ownership of educational institutions is also a commercial proposition in India and in many countries and has to follow the same approach.
It is relevant to note that the Oikos Foundation, a leading international student-organisation for sustainable economics and management, offers active learning in its winter school programme (EABIS, 2005). One important type of active learning involves having community service projects embedded within academic coursework. The US experience shows that nearly one-third of all K-12 schools and half of public high schools provide such service-learning programmes (Wilhite \& Silver, 2005).
Some of the benefits of these programmes are listed as:
Improved academic achievement, positive attitude toward school, increased civic engagement, social maturity, concern for others, emotional intelligence, positive self-concept, and reduced involvement in risky behaviour. It also claims that students working with other students, in comparison to students who interact primarily with an adult teacher, are more likely to be adventurous and innovative in dealing with new information as well as more likely to develop sophisticated views of how epistemological beliefs are constructed. The studies about the impact of service-learning programmes on college students seem to show similar benefits. It is shown that college students who have service-learning experience show greater evidence of community involvement following graduation than do students who did not have such experience.

## A CASE STUDY ON COMMUNITY INVOLVEMENT PROJECT (CIP)

The following case study by Cetindamar, Dilek and Hopkins, Tara (2008) describes an innovative model of CSR practice in education. It is based on service learning through social responsibility and participatory democracy at a fundamental level.
Briefly, the case study deals with Civic Involvement Projects (CIP) implemented at Sabanci University, which was established officially in 1996 in Istanbul, Turkey.
The University started its formal education programmes in the fall of 1999. The university set its mission as:
"Our mission is to develop competent and confident individuals, enriched with the ability to reflect critically and independently, combined with a strong sense of social responsibility; and,
to contribute to the development of science and technology, as well as disseminating the knowledge created to the benefit of the community". Following this mission, CIPs were developed in 1999 and have been carried out since then. They are a compulsory part of the course programme of Sabanci University because the University believes that pointing out the realities of life and learning to play an active part in understanding these, is an indispensable part of quality university education. By being involved in various issues at the grass-roots level, students gain a better understanding of the complexity of issues, and learn to see that they can make a difference through their direct involvement. The programme fits within the university's philosophy, which aims to see the students graduate as well-rounded individuals in addition to being academically and professionally successful.
CIPs are hands-on learning programmes for understanding participatory democracy, where students take active roles in civil society, dealing with various problems. They work in co-operation with national and international Civil Society Organisations and state institutions.
The underlying rationale for the CIP programme is a belief that individuals are responsible for the society and the world in which they are living. CIP strives for internalisation of participatory and democratic values through active involvement with (mostly) the local community at different levels.
The authors report, "Within our programme, we provide the necessary tools for people - our students as well as those they work with - to realise themselves. This is done through teamwork, through empowerment, through training and, of course, through direct involvement. With the exception of the coordinator and office assistants, all involved in CIP are students. All projects operate in teams, with students choosing the topic they wish to work on. Teams are led by supervisors, students who have previously completed at least one project, and have passed the application process - written application, oral interview and case study as well as recommendation from their team supervisor - to officially become part of the larger CIP Team".
As a result of their involvement in the CIP programme the authors of the case study believe that students at Sabanci University develop a better understanding of social issues - be they poverty, shortcomings of the state educational system, environmental issues, the realities of elderly in nursing homes, becoming more comfortable working with the handicapped, human rights, and other related concepts. They also develop a sense of empathy, a greater appreciation for their own fortunes, and learn to see themselves in a different light as they grow as individuals through their involvement.
As Jongh and Prinsloo (2004) describe, education on sustainability and social responsibility should embrace pedagogy of critique, possibility and engagement. Among these three, possibility is particularly important; we interpret it to mean that we, as ordinary people, might live our lives and actively participate in creating a safer, more humane, sustainable world (Andrzejewski \& Alessio, 1999).
Goals of Engineering Education:
Bodogna, Fromm and Ernst (1993) proclaimed that engineering education's primary goals among several other goals should be to develop, in as individualized a way as possible, in each student:

- Integrative capability (analysis and synthesis are supported with sensitivity to societal need and environmental fragility).
- Contextual understanding capability - appreciation of the economic, industrial, and international environment in which engineering is practiced and the ability to provide societal leadership effectively.
The report: A Vision for the Future of US. Engineers, from the "2000 Task Force" of the American Engineering Society suggest that engineering education in the 21st century must incorporate the trend towards practice-oriented advanced degrees, incorporating teamwork and social consciousness.


## COMMUNITY DEVELOPMENT INITIATIVES IN SOME OF THE COLLEGES IN BENGALURU COVERED IN THE STUDY GANDHIAN PRINCIPLE AND VALUE BASED EDUCATION CENTER (RV COLLEGE OF ENGINEERING)

This centre is doing social service through rehabilitation to the people suffering from leprosy and those released from prisons. Through National Services Scheme of the centre, street dramas are being staged by engineering students to create awareness regarding cleanliness to the rural people and to those who dwell in slums.
This centre has been carrying on many projects relating to education, Environment, social and economic projects and also projects pertaining to women.
This centre is giving information to AIDS related diseases, another important programme to impart knowledge to the youth in blood donation, thereby holding many camps once a year by them. About one thousand to two thousand students are donating blood to the needy.
This centre is lending eye sight by undertaking eye operation to the people of rural areas, to the lesser privileged scheduled castes and those who dwell in slums. The doctors of this centre are giving free treatment to the people of surrounding villages and especially to those affected by contagious diseases through literacy campaigns. The centre is providing adults of the villages, knowledge of literacy.
R.V.C.E. also conducts Computer Training for the poor and underprivileged women under Centre for Women's Empowerment \& Skills Training (WEST) program.
R.V.C.E. also runs programs for school drop-outs under Centre for Social Service and Skills Promotion (SKIP) program

## PES INSTITUTE OF TECHNOLOGY, BENGALURU

Community Outreach programme:
"At PES I was challenged constantly. Involving myself in community service was one such thing-you really get to learn about yourself"-Anand $M$ Kadur, PES alumnus, Avaya Inc.
Concern for the environment underlies all programs at PES. In addition to the adoption of community parks, PES has initiated an extensive tree plantation program. The students and faculty plant over a thousand trees every year in a bid to green surrounding areas. Drinking Water Scheme provides bore wells, pumps and drinking water tanks to help villages around the campuses.
PES students regularly pool their skills and talent to give back to the society they live in. There are a number of active organizations and programs for community outreach on campus
The PES Community Service Program has adopted 12 rural government schools and is working with them at two levels: The first is to improve infrastructure like buildings, sanitation facilities, drinking water, libraries and sports facilities. The second is to upgrade teaching skills, train faculty members and provide teaching aids. PES students visit these schools every weekend and monitor progress.
PESIT runs Vocational Training Programs for Class $X$ dropouts. This involves training programs in machining, carpentry, plumbing, TV repair and other vocational skills that help these young people find feasible careers and achieve economic independence.
The PES Institution of Medical Sciences and Research at Kuppam participates in the Janmabhoomi Programe (A Govt of Andhra Pradesh initiative for upliftment of the down trodden people) four times a year. Free medical check - ups are carried out for thousands of underprivileged people and surgeries are performed without any charge.
The students participate with enthusiasm in a number of other, highly effective Community Service schemes at PES. These include the National Cadet Corps, National Service Scheme (NSS, Govt of India), Primary Education Program, Community Housing and the Rural Health Program.
[NSS-: Government of India launched The National Service Scheme (NSS) on September 24, 1969 in order to promote social consciousness, a sense of responsibility, and a sense of discipline and dignity of labour among college students. The scheme utilises the leisure time of students for two years of their college studies, in various item of social service, which not only helps the community, but also provides an opportunity to the students to understand the conditions prevalent in the community. The ultimate aim is to develop the personality of students through community service].

## MSR INSTITUTE OF TECHNOLOGY, BENGALURU

M S Ramaiah Institute of Technology introduced the NSS unit in 1999. From then onwards programs are going on with the no. of volunteers numbered about 100 both boys and girls.
Regular activities \& 10 days special camp are two types of programmes. The Principal in co-ordination with the NSS Officer supports these activities. They arrange NSS special camps every year during August -September. More than hundred boys and girls participate in the camps. MSRIT selected Government primary and High school and slum areas for community service and educational programmes.
Besides the annual camp, regular works in the college campus are also undertaken. They give Certificates to students who attend the camp and they are eligible for grace marks for seeking admission to higher courses. Activities undertaken by the NSS include environment enrichment and conservation, health, family welfare and nutrition programmes, projects aimed at creating an awareness for improvement of the status of women, women's development and gender justice, work in hospitals, production oriented work, non-formal education, healthy life-style education, AIDS awareness programmes, total authorities in rehabilitation work during natural calamities and emergencies.

## STATEMENT OF THE PROBLEM

It is needless to say that students in professional colleges must not only be trained in their professional subjects but also be made aware of their responsibility towards the society ; they must be motivated to adopt this is as their life style. This can be done only by and through the faculty with due encouragement by the managements.
The faculty of Engineering Colleges tend to isolate themselves from the presence or otherwise of any community development initiatives in their colleges let alone participate whole heartedly in the same. The managements also do not take any special initiatives to promote and nurture the culture of service to society.

## OBJECTIVES OF THE STUDY

The objectives of the study are to unravel the facts about the following:
Whether the type of management has any relationship to the awareness levels and the motivation levels of the faculty with regard to the community development initiatives in their respective colleges since it is the management which is often blamed for any shortcomings?

## METHODOLOGY

The data for the study was collected from the faculty working in Engineering Colleges run by different types of managements in Bengaluru, India. A structured questionnaire was circulated and responses were collected from the faculty of the selected colleges. Chi-square test and ANOVA single factor at a significance level of $5 \%$ are used for testing the hypothesis regarding the opinion of the faculty belonging to the three types of colleges.

## RESEARCH LIMITATIONS

The survey was conducted only in Bengaluru in selected colleges.

## ANALYSIS AND INTERPRETATION

## Hypothesis 1

Null Hypothesis: The faculties' opinion on whether any Community Development Initiatives are present in the institution is independent of the type of the institution they are working in.
Alternative Hypothesis: The faculties' opinion on whether any Community Development Initiatives are present in the institution is dependent on the type of the institution they are working in.
Significance level: 5\%
TABLE-1: (MULTIPLE RESPONSES BY FACULTIES)

| Observed Data |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Aided | Self Financed | University | Total |
| Yes | 87 | 102 | 49 | 238 |
| No | 14 | 6 | 8 | 28 |
| Total | 101 | 108 | 57 | 266 |

TABLE-2: EXPECTED DATA

| Expected Data |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :---: |
|  | Aided | Self Financed | University | Total |  |
| Yes | 90 | 97 | 51 | $\mathbf{2 3 8}$ |  |
| No | 11 | 11 | 6 | $\mathbf{2 8}$ |  |
| Total | 101 | 108 | 57 | $\mathbf{2 6 6}$ |  |

TABLE-3: CALCULATION OF CHI-SQUARE

| Calculation of Chi-square |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| O | E | O-E | $(0-E)^{\wedge 2}$ | $(0-E)^{\wedge} 2 / E$ |
| 87 | 90 | -3 | 9 | 0.1000 |
| 102 | 97 | 5 | 25 | 0.2577 |
| 49 | 51 | -2 | 4 | 0.0784 |
| 14 | 11 | 3 | 9 | 0.8182 |
| 6 | 11 | -5 | 25 | 2.2727 |
| 8 | 6 | 2 | 4 | 0.6667 |
| Chi-square |  | 4.1937 |  |  |

d.o.f. $=(c-1)(r-1)=(3-1)(2-1)=2$

Critical value of Chi-square $=5.9915$
Calculated value of Chi-square $=4.1937$
TEST INTERPRETATION: Since the calculated value of chi-square (4.1937) is lesser than the critical value (5.9915) at $5 \%$ level of significance, the null hypothesis is accepted.
CONCLUSION: Since the null hypothesis is accepted, we can conclude that the faculties' opinion on whether any Community Development Initiatives are present in the institution is independent of the type of the institution they are working in. In other words, the faculties are expressing their opinion on the presence of Community Development initiatives in their institutions independently.
Hypothesis 2
Null Hypothesis: There is no significant variation on the opinion of the faculties belonging to aided, self financed \& university institutions on the Community Development initiatives in their institutions.
Alternative Hypothesis: There is a significant variation on the opinion of the faculties belonging to aided, self financed \& university institutions on the Community Development initiatives in their institutions.

Significance level: 5\%
TABLE-4: THE DATA FOR TESTING THE ABOVE HYPOTHESIS

| Various Community Dev. Initiatives |  | No. of Faculties |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Aided | Self Financed | University |
| a | Village adoption | 15 | 25 | 2 |
| b | School adoption | 14 | 86 | 1 |
| c | Vocational training programs for deserving candidates | 79 | 81 | 5 |
| d | Donation or contribution towards Energy generating resources in rural areas | 8 | 25 | 7 |
| e | Adoption of NGO(Non-Govt-Org) | 5 | 7 | 0 |
| f | Training in NGO for self employment | 9 | 7 | 0 |
|  | Total <br> (Multiples responses by faculties) | 130 | 231 | 15 |

## TEST PROCEDURE USED IS ANALYSIS OF VARIANCE

| GROUPS | COUNLE -5: RESULTS | SUM | AVERAGE | VARIANCE |
| :--- | :--- | :--- | :--- | :--- |
| AIDED | 6 | 130 | 21.67 | 803.07 |
| SELF FINANCED | 6 | 231 | 38.50 | 1282.30 |
| UNIVERSITY | 6 | 15 | 2.50 | 8.30 |
| TABLE-6: ANOVA SINGLE FACTOR SUMMARY |  |  |  |  |


| Source of Variation | SS | df | MS | $\boldsymbol{F}$ | P-value | F crit |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Between Groups | 3893.44 | 2 | 1946.72 | 2.79 | 0.09 | 3.68 |
| Within Groups | 10468.33 | 15 | 697.89 |  |  |  |
| Total | $\mathbf{1 4 3 6 1 . 7 8}$ | $\mathbf{1 7}$ |  |  |  |  |
|  |  |  |  |  |  |  |

TEST INTERPRETATION: Since the calculated value of $\mathrm{F}(2.79)$ is lesser than the critical value (3.68) or the p -value ( 0.09 ) is greater than the specified significance level (0.05), the null hypothesis is accepted.
CONCLUSION: Since the null hypothesis is accepted, we may conclude that there is no significant variation on the opinion of the faculties belonging to aided, self financed \& university institutions on the Community Development initiatives in their institutions.

## Hypothesis 3

Null Hypothesis: The faculties' opinion on whether they are involved in any of the Community Development Initiatives present in the institution is independent of the type of the institution they are working in.
Alternative Hypothesis: The faculties' opinion on whether they are involved in any of the Community Development Initiatives present in the institution is independent of the type of the institution they are working in.
Significance level: 5\%
TABLE-7: (MULTIPLES RESPONSES BY FACULTIES)

| Observed Data |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Aided | Self Financed | University | Total |
| Yes | 40 | 29 | 6 | $\mathbf{7 5}$ |
| No | 61 | 81 | 15 | $\mathbf{1 5 7}$ |
| Total | $\mathbf{1 0 1}$ | $\mathbf{1 1 0}$ | $\mathbf{2 1}$ | $\mathbf{2 3 2}$ |

TABLE-8: EXPECTED DATA

| Expected Data |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Aided | Self Financed | University | Total |
| Yes | 33 | 36 | 7 | $\mathbf{7 5}$ |
| No | 68 | 74 | 14 | $\mathbf{1 5 7}$ |
| Total | $\mathbf{1 0 1}$ | $\mathbf{1 1 0}$ | $\mathbf{2 1}$ | $\mathbf{2 3 2}$ |

TABLE-9: CALCULATION OF CHI-SQUARE

| Calculation of Chi-square |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| O | E | O-E | $(\mathrm{O}-\mathrm{E})^{\wedge 2}$ | $(0-\mathrm{E})^{\wedge 2 / E ~}$ |
| 40 | 33 | 7 | 49 | 1.4848 |
| 29 | 36 | -7 | 49 | 1.3611 |
| 6 | 7 | -1 | 1 | 0.1429 |
| 61 | 68 | -7 | 49 | 0.7206 |
| 81 | 74 | 7 | 49 | 0.6622 |
| 15 | 14 | 1 | 1 | 0.0714 |
| Chi-square |  | 4.4430 |  |  |

d.o.f. $=(c-1)(r-1)=(3-1)(2-1)=2$

Critical value of Chi-square $=5.9915$
Calculated value of Chi-square $=4.4430$
TEST INTERPRETATION: Since the calculated value of chi-square (4.4430) is lesser than the critical value (5.9915) at $5 \%$ level of significance, the null hypothesis is accepted.
CONCLUSION: Since the null hypothesis is accepted, we can conclude that the faculties' opinion on whether they are involved in any of the Community Development Initiatives present in the institution is independent of the type of the institution they are working in.

## Hypothesis 4

Null Hypothesis: The faculties' opinion on whether they should be involved in the Community Development Initiatives to influence the students is independent of the type of the institution they are working in.
Alternative Hypothesis: The faculties' opinion on whether they should be involved in the Community Development Initiatives to influence the students is dependent on the type of the institution they are working in.
Significance level: 5\%
TABLE-10: OBSERVED DATA (MULTIPLE RESPONSES BY FACULTIES)

| Observed Data |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Aided | Self Financed | University | Total |
| Yes | 106 | 99 | 24 | 229 |
| No | 8 | 18 | 2 | 28 |
| Total | 114 | 117 | 26 | 257 |
| TABLE-11: EXPECTED DATA |  |  |  |  |


| Expected Data |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Aided | Self Financed | University | Total |
| Yes | 102 | 104 | 23 | $\mathbf{2 2 9}$ |
| No | 12 | 13 | 3 | $\mathbf{2 8}$ |
| Total | $\mathbf{1 1 4}$ | $\mathbf{1 1 7}$ | $\mathbf{2 6}$ | $\mathbf{2 5 7}$ |

TABLE-12: CALCULATION OF CHI-SQUARE

| Calculation of Chi-square |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| $\mathbf{0}$ | E | E(after <br> pooling) | O-E | $(0-\mathrm{E})^{\wedge 2}$ | (0-E)^2/E |


| 106 | 102 | 102 | 4 | 16 | 0.1569 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 99 | 104 | 104 | -5 | 25 | 0.2404 |
| 24 | 23 | 23 | 1 | 1 | 0.0435 |
| 8 | 12 | 12 | -4 | 16 | 1.3333 |
| 18 | 13 | 16 | 4 | 16 | 1.0000 |
| 2 | 3 |  |  |  | 0.0000 |
| Chi-square |  |  |  |  | 2.7741 |

d.o.f. $=(c-1)(r-1)=(3-1)(2-1)=2$. Further, 1 d.o.f. is lost because one Expected freq is less than 5. Therefore, the d.o.f. $=2-1=1$

Critical value $=3.8400$
Calculated value $=2.7741$
TEST INTERPRETATION: Since the calculated value of chi-square (2.7741) is lesser than the critical value (3.84) at $5 \%$ level of significance, the null hypothesis is accepted.
CONCLUSION: Since the null hypothesis is accepted, we can conclude that the faculties' opinion on whether they should be involved in the Community Development Initiatives to influence the students is independent of the type of the institution they are working in.

## FINDINGS, SUGGESTIONS, AND CONCLUSIONS

There is no significant variation on the opinion of the faculties under different managements on the presence of Community Development initiatives in their institutions, the types of initiatives, their own involvement in the same, and their role in influencing the students.
Therefore the suggestion is to conduct awareness programmes at the level of the university for the managements of these colleges about the need and importance of Community Development Initiatives in their colleges to promote social responsibility and civic sense among the passing out students through the efforts of motivated faculty. In turn the managements must ensure that the message percolates down to the faculty and students. The efforts of the Colleges that implement the initiative in earnest must be recognised and published to motivate others.

## REFERENCES

A Vision for the Future of U.S. Engineers, Report of the 2000 Task Force, American Engineering Society, 1991.
Andrzejewski, J.,\& Alessio, J. (1999).Education for Global Citizenship and Social Responsibility. Progressive Perspectives, 1(2), 2-15.
3. Bordogna, J., Fromm, E., and Ernst, E.W., "Engineering Education: Innovation through Integration", Journal of Engineering Education, January 1993, pp. 3-8.
4. Cetindamar, Dilek and Hopkins, Tara(2008) 'Enhancing Students' Responsibility Towards Society Through Civic Involvement Projects', Innovations in Education and Teaching International,45:4,401-410
5. European Academy of Business in Society (EABIS) (2005). European Corporate Responsibility Education \& Training Exchange. Brussels: EABIS.
6. European Commission.(2002). Communication on Corporate Social Responsibility: A Business Contribution to Sustainable Development. Luxembourg: Office for Official Publications of the European Commission.
7. Hosmer, L.T. (1999). Somebody Out There Doesn't Like Us: A study of the position and respect of business ethics at Schools of Business Administration. Journal of Business Ethics, 22, 91-106.
8. Jongh, D.de. \& Prinsloo, P (2004). Why Teach Corporate Citizenship Differently? Journal of Corporate Citizenship, 18, 113-122.
9. Matten, D., \& Moon, J. (2004).Corporate Social Responsibility Education in Europe. Journal of Business Ethics, 54, 323-337
10. Macfarlane, B. (2005). The Disengaged Academic: The Retreat From Citizenship. Higher Education Quarterly, 59, 296-312.
11. Wilhite,S.C., \& Silver, P.T. (2005).A False Dichotomy For Higher Education: Educating Citizens vs. Educating Technicians. National Civic Review, 2005, 46-54.
12. http://www.pes.edu/menu/community.aspx
13. http://www.rvce.edu.in/gandian_studies.php
14. http://www.msrit.edu/node/338

# BANKING ON IT: PROBLEMS AND PROSPECTS IN STATE BANK OF INDIA 

TIMIRA SHUKLA<br>PROFESSOR \& CHAIRPERSON (PGDM)<br>INSTITUTE OF MANAGEMENT STUDIES GHAZIABAD<br>ANITA SINGH<br>CHAIRPERSON (HR\&OB)<br>INSTITUTE OF MANAGEMENT STUDIES GHAZIABAD


#### Abstract

The paper primarily focuses on how IT is currently being deployed by the Public sector Banks primarily the state Bank of India. It specifically deliberates on why and how to implement Business model innovation with IT. The role of IT with respect to the maturity of information management systems is also discussed as banks are redefining their focus from the product to a comprehensive single view of the customer. It highlights how a judicious blend of IT, business processes and data integration solutions are essential to survive and consolidate in the new economy. The basic presumption that IT investments lead to cost reduction and efficiency has been explored. SBI has adopted new IT solutions to create a single integrated view of the customer across the bank, its associates and subsidiaries. The main aim is to build a collaborative information sharing platform to create repositories that link customer data with business processes. The focus is not only on the number of ATMs or customers using Internet banking but also on the quality of data available as it forms the backbone of any information system to meet emerging business opportunities and challenges. This would enable SBI to take informed and intelligent decisions that will help in the overall growth of the bank. The aim is to manage the life cycle of the relationship and not just a series of discrete transactions. SBI aims to deepen relationship with existing customers to create more value by developing strategies for cross-selling, up-selling and retention of customers.


## KEYWORDS

IT strategy, process innovation, people, customer, banking industry, India, technology, implementation, employees

## INTRODUCTION

JJ$t$ is imperative to mention that the term customer was a paradox in banking sector not long ago. The Indian public sector banks which have come face-to-face with competition just since last decade are found wanting both with regard to performance as well as their customer orientation. The competitive forces also highlighted the significance of providing consistent service not only across all branches but also across all channels and touch points. Apart from these, technology and Internet have totally altered the competitive landscape of the retail banking industry. Today' retail banking sector is characterized by following:

- Multiple products (deposits, credit cards, insurance, investments and securities)
- Multiple channels of distribution (call center, branch, Internet and kiosk)
- Multiple customer groups (consumer, small business, and corporate)

With increased number of banks, products and services and practically nil switching costs, customers are easily switching banks whenever they find better services and products. Thus integration and collaboration by using IT solutions has become a necessity for the banking sector.
In terms of IT at the heart of the banking sector lays CBS (Core Banking Solutions) which helps the bank in achieving centralized processing mechanism across multiple delivery channels. Though it has enabled the bank to provide anytime anywhere service to their customers it has also thrown up challenges. This relate to maintaining secure data platforms and meeting changing customer expectations. Banking on technology needs flexible, scalable customer-centric CBS solutions which can deliver across multiple channels. This is significant in the competitive and changing market as achieving cost efficiencies is feasible only when banks identify revenue opportunities from the existing customer base and/or develop business models to cross-sell and up-sell other banking products and services.
Though most banks have an IT backbone it is primarily used for the sales function; it aids in streamlining the delivery channels. It is analytical tools which will provide the bank with a single view of the data across disparate systems .Data mining techniques will enable the bank to implement Customer Portfolio Analysis (CPA). The basic task of CPA is to segment and profile existing as well as prospective customers and identifies who are the most profitable customers and who are least profitable. The profiling helps the bank in understanding demographics, purchase patterns and channel preferences of customers and group them into similar clusters (portfolio). This enables the bank to develop a portfolio of customers with whom they can develop long-term relationships. These analytics (data mining techniques) are still in stages of infancy in most PSU banks in India. It is important to mention that scalability and integration have to inbuilt as banks will continue to acquire new customers. As we emerge out of recessionary climate in the perception of IT as a function, with a general consensus among banks across the board that technology would serve as a key enabler in helping the banks to meet their strategic objectives. This will also help create a differentiation as it is widely perceived by the banks that banking products are commodities with very little differentiation in the heart and mind of the customers.
However this alone will not deliver results across all locations, branches and channels as IT can provide capability and not agility. Banks need to focus on execution as devising processes; mindset and building a culture of responsibility and adaptability are critical drivers of Banking with IT. According to a survey conducted by PwC and CII $86 \%$ respondents are of the opinion that IT is a strategic function in most areas of operations. But there is a strong need to integrate business processes and business models. Davenport (1992) has stated that IT led innovation as radical, high-risk and always top-down due to competitive challenges. A well-designed IT strategy enables effective, efficient, scalable and flexible
information systems to meet current and future business requirements. It is pertinent to mention that IT is only an enabler in the business process; people (internal as well as external customers) are critical for its success. It is worth mentioning that the human factor is least studied in this context; it always lags behind the process and technology. Diffusion of innovation amongst the employees is a critical determinant as IT can provide only an infrastructure. This aspect has been explored in the case of State Bank of India further and how it has been leveraged to create a successful business model.
The pressures of competitive and dynamic markets have contributed to the growth of IT in the banking sector as the bargaining power of the customers has increased in the Internet age.. Chen Qimie and Chen Hong-Mei(2004) have asserted how IT solutions are critical to implementation of CRM in banking. Payne and Frow (2005) have extensively studied the link between value creation and multi-channel integration processes. Innovations in technology, along with the changing nature of delivery of banking products and services, are perceived to have a significant impact on the existing technology landscape. The foregoing studies highlight how people, process and ability to internalize its past learning are critical determinants of business transformation. (Refer Figure 1)


FIGURE 1: ELEMENTS OF PROCESS INNOVATION
A successful business model encompasses strategy, customer value, information system, process and people (employee) management. ${ }^{1}$ It can be observed that IT is no magic wand; People, Process and Technology have to be integrated to create an effective, flexible enterprise wide system.

## OBJECTIVE

The main purpose of the foregoing review is to understand the significance of people as a critical factor in implementation of IT-enabled innovation. The purpose of the study undertaken in India's largest public sector bank namely the State Bank of India is to understand the implementation processes adopted to leverage IT potential in a competitive market. It highlights the role of partners not only in planning but also in execution. It is noteworthy to mention that Suppliers, Customers, Owners, Partners and Employees are crucial in network development. Network is a condition of organizations or individuals that work collectively and sometimes collaboratively to create value for the customer. The super ordinate goal of network development is to generate and disseminate accurate and up-to-date data to every participant in the CRM equation.

## METHODOLOGY

The SBI was selected for the study as they had made massive investments in IT to upgrade and restructure their operations. The information was collected by personal discussions and interviews with employees. The study is exploratory in nature and the method of data collection is unstructured interviews. The data has been culled from literature and SBI's website also apart from bank branches

## STATE BANK OF INDIA: COMPETITIVE STRATEGIES OF A MARKET LEADER

The State Bank of India's (SBI) reach within the country is unparalleled. With a network of more than 14,000 branches-the largest in India and more than double that of the largest bank in the U.S.-and more than 10,000 ATMs spread through- out the country, SBI has a long and distinguished history of providing financial services, contributing to the economic development of India since the 1920s. . The launch of SBI's online banking portal, "OnlineSBI," in 2001 was greeted with favorable response. In little more than a year, SBI registered 18,000 users across 150 of its branches, dispelling the belief that customers of public sector banks would not be open to Internet banking. The software developed by Cisco Systems, Inc. Internet Business Solutions Group enabled the bank to extend its banking services channels to Internet users, including Indian expatriates abroad. But the implementation road was not without teething problems. One of the problems that arose after the implementation of "OnlineSBI" was "Greater Functionality but Reduced Usability"
Although SBI was a first-mover among public sector banks to provide these services; the focus was more on provision of features and less on site usability. As a result, even though the services were enticing, the complex usability experience actually deterred customers. A cluttered, repetitive, and text-heavy interface made it difficult to locate the functions they needed to use. The average SBI customer profile may also have contributed to low usage of the site. Typically, public sector banks deploy branches to reach smaller towns and remote villages, where Internet connectivity may be less available. In these areas, customers have less exposure to the Internet and would find the online banking interface challenging to navigate. Therefore SBI again engaged its partner Cisco IBSG to provide solution for OnlineSBI. A study carried out revealed that the SBI's existing site fared poorly in customer usability (one out of five), but scored adequately in service features. As a result of this IBSG produced a report in February 2005 proposing several significant changes that SBI implemented.. The consumer online banking site was revamped based on these and released in December 2005. Among other things, the revamp reduced clutter in page layouts, improved the consistency of navigation, simplified access to functions driven by customer scenarios, and updated the aesthetics and branding consistency.

[^1]Subsequently, enhancements were made to add fund transfers, bill payments, purchase of railway tickets, and the ability to receive bank balance alerts via Short Message Service (SMS). Online SBI is now a world-class online banking portal to be emulated. It provides a more linear flow to carry out banking transactions rather than having all possible transactions occupy screen space; simpler drop-down menus have been incorporated to enable customers to drill down for further detail. The result is a navigation system that does not interfere with the main body of the page.
SBI's partnership with IBSG has provided benefits in other areas as well. One such area is SBI's IT security. With the launch of the revamped OnlineSBI, the bank became a first-mover in providing innovative banking services with added online security features in the country (for example, virtual PIN pads and second factor authentication via SMS). SBI aimed at making its customers experience a new world of banking convenience, right at their fingertips with this new technology.
Apart from restructuring, SBI launched several innovative, value-added products and services to project a customer friendly image. It launched a special service for corporate customers called 'telebanking and remote login' to support transactional requests. The software BANKLINK along with CBS enables the bank to maintain a centralized database system.
SBI considers each of its service as special. SBI does not depend on any infomediary. They believe that such vital information supplies by an outsider may be inaccurate at times. They keep their customers updated through its special website: www.sbitimes.com. They strongly believe in maintaining direct contact with its customers. This massive restructuring exercise undertaken by SBI has enabled the bank to develop a single repository by leveraging IT and build a collaborative information-sharing platform. This innovation with IT has enabled the bank to reap the following benefits:

- Customer Information Consolidation - The information is no longer stored in a silo format viz. separate database for savings account, loans, insurance etc.
- 360-degree view of company - This means whoever the bank speaks to, irrespective of whether the communication is from sales, finance or support, the bank is aware of the interaction. Removal of inconsistencies of data makes the client interaction processes smooth and efficient, thus leading to enhanced customer satisfaction.
- Activity Management - It helps managers to assign and track the activities of various members. Thus improved transparency leads to improved efficiency.
- Contact and Operational Inefficiency Removal -.It supports all channels of customer interaction including telephone, fax, e-mail, the online portals, wireless devices, ATMs, and face-to-face contacts with bank personnel.
- Business Intelligence - It helps in implementing CPA thus improving the overall profitability of the bank

IT is not only about implementing software but also about involving employees. If employees who are vital to any service organization are not developed the business innovation agenda will not deliver any result. State Bank of India undertook the Parivartan and Citizen SBI initiatives to provide training to the employees on how to deal with the customers, address their problems and queries and giving them appropriate solutions, addressing their grievances so that they as to increase customer satisfaction, customer retention and customer advocacy. Employee Training and Development programs like "Parivartan" and "Citizen SBI" discussed further enabled the country's largest public sector bank to implement the business transformation exercise.
"Parivratan" is an internal communication exercise undertaken to bring about a change in the attitude and mindset of the employees. It was observed that though SBI was the market leader, it was unable to attract young or affluent customers and its brand image was perceived to be old and staid. The bank therefore undertook a massive communication exercise by involving all the people in the organization.
Parivartan Phase 1, which was held for top-level employees, proved very beneficial ; the top -level employees educated the employees under them and provided much needed fillip to the for implementation..By the time 'Parivartan reached its second phase the middle and lower level employees were well aware of this initiative and its benefits. This created an excitement for phase 2 making it a huge success. Parivartan has helped in improving customer services and thus bringing about an increased level of customer satisfaction. This initiative has helped in boosting employees' self-confidence and thus has improved their efficiency. One of the impacts Parivartan has had on the organization is that it has helped in bringing about role clarity and defining a structure for customer handling. From how wide a welcome smile should be, to how to deal with an angry customer, a structured training was provided to the employees leading to uniformity in the kind of customer services provided by different branches of SBI all over the world and a decrease in confusion and ambiguity in customer dealing.

## ANALYSIS

It can be seen that application of IT cannot deliver immediate results. People at all levels of management including customers are valuable inputs and the outcome can be positive if proper implementation and change process is adopted. The roadmap for implementation is as important as the objective. As can be seen from above the Project - "CITIZEN SBI" took more than a year and a half to design after conducting detailed investigations among employees, academicians, consultants, and management experts and last but not the least the customers regarding what makes them tick, what are the pain points and where are the flash points .Citizen SBI project aims at developing the characteristics of a citizen in the employees of SBI. The characteristics of a citizen that were considered are:

- Inside out behavior-Having a customer centric approach and assisting the customer at each and every stage as the customer is an integral part of an organization.
- Inclusiveness- Employee should have the sense of belongingness and take an active part in organizational activities. There should be a strategic congruence between individual and organizational goals.
- Enlightened self interest-Inquisitiveness and desire to learn and do work other than his/her own so that the employee can give contextual performance and the organization has no dearth of talent.
- Contribution- The employees should be ready to contribute fully to the organization's progress and development.
- Human equality-No difference between the superior and the subordinate so that all the employees get an equal opportunity to learn and grow and creation of an excellent work culture takes place.
Citizen SBI has been rolled out in 4 stages and is still not implemented in all the branches. But SBI's market share as well as new customer acquisition has increased substantially (Refer Exhibit 1 and Exhibit 2).


## CONCLUSION

SBI with its IT network of automated branches can extend this to thousands of co-operative banks thereby creating a new business opportunity. These small banks with 5 to 10 branches cannot afford to invest in sophisticated automation systems. Thus it can provide a strategic business opportunity to the bank It will also enable the bank to provide access to services such as mutual funds, home loans and insurance services. The opportunity to cross-sell and up-sell is an important feature of innovation with IT. It can also be seen how IT can be used as lever wherein technology is never more important than the end results. A simple philosophy which places the customer at the heart of the business processes can be used for improving customer satisfaction and maximizing profits.

## REFERENCES

Chen Qimie and Chen Hong-Mei (2004). Exploring the success factors of eCRM strategies in practice. Journal of Database Marketing and Customer StrategyManagement. Vol. 11(4) pp333
Davenport T H (1992). Process Innovation Reengineering work through Information Technology, Harvard Business School Press, 1992
Pyne A and frow P (2005). A strategic framework for customer relationship management. Journal of Marketing 69(4) pp167-176
Revvving up new-age banking, survey conducted by PwC and CII, Asian Management Review, Vol. \% pp20-29
Shanbhag, S (2010). 'Best Foot Forward', Dataquest, Vol xxvii. 10 pp24-25
Weick, Karl, 1993, the Collapse of Sense Making in Organization, Administrative Science Quarterly, Vol.38, \#4, (Dec) 628-652
http:/ www.statebankofindia.com the official website of SBI last accessed on September 29, 2010

## EXHIBIT

## EXHIBIT 1: IMPACT OF INNOVATION IN SBI

The lounge and the banking counter at SBl's 'Premium Banking Centre' that opened in. The moment you step into this place, a 'Nizam Lounge' greets you with an attached Pearl Coffee Bar, a couple of mini conference rooms, business centre and a forex counter. There is also Wi-Fi connectivity and round-the-clock locker rooms. This is a first of its kind - premium High Networth Individual (HNI) branch of State Bank of India which opened in Hyderabad in September 2010..SBI, which recently launched a unique initiative facilitating opening of an account with just Re one has now targeted the other end of the spectrum, with the new offer where the minimum deposit is Rs one crore. "The feel, environment and ambience are vital to HNIs and the same will be provided to them in this branch which serves the high-end of HNIs," Mr Diwakar Gupta, Deputy Managing Director, State Bank of India said after inaugurating the branch. The centre would function with extended banking hours up to $8 \mathrm{p} . \mathrm{m}$. on all days of the year. "While SBI has over 150 branches which cater to HNIs, this branch is based on a different concept. Our 14 chief general managers in different regions may consider replicating this initiative in their respective circles," he said. Apart from pure banking services, customers would also be provided the whole array of financial products and services such as financial planning and advisory support, forex services, and NRI services. Interestingly, SBI now has customised branches for people who would like to open an account with an initial balance of Rs one and Rs one crore. It had launched special branches where working class people and petty businessmen could open accounts with just one rupee in association with Geo Sansar.

Source: http:/www.statebankofindia.com last accessed from the SBI's website on September 29, 2010

# BUSINESS RISK ANALYSIS THROUGH GINNI'S COEFFICIENT: A STUDY OF SELECT IT COMPANIES IN INDIA 

DR. DEBASISH SUR PROFESSOR DEPARTMENT OF COMMERCE<br>THE UNIVERSITY OF BURDWAN BURDWAN - 713104<br>DR. SUSANTA MITRA<br>ASSOCIATE PROFESSOR<br>DEPARTMENT OF COMMERCE<br>KHANDRA COLLEGE<br>KHANDRA-713 363


#### Abstract

With the remarkable changes in the business environment consequent upon economic liberalization initiated in 1991 by the Govt. of India, the Indian corporate world is witnessing a rapid transformation. One striking feature of it is that the information technology (IT) industry has established itself as a catalyst in accelerating the economic growth of our economy in the past few years in terms of its potentiality to generate foreign exchange earnings, high quality employment and contribution to the productivity in contrast with the rest of the industries in the economy. Despite the fact that the IT sector has been playing a pivotal role in strengthening the Indian economy, adequate attention has not yet been paid to conduct research on the different financial aspects of this sector. Moreover, no significant empirical study has been carried out in India during the last two decades on the issue relating to the business risk associated with the players of the Indian IT sector. But, considering the stiff competition that exists in the present day corporate world, the understanding, analyzing and measuring business risk are immensely important to the corporate executives to instigate managerial excellence by assessing the relative position of the company within the given pattern of industry risk which in turn reflects the capability to achieve stability and also for making risk-return trade off. The present paper is a modest attempt to measure the business risk associated with the sample companies taken up for the purpose of the study using Ginni's coefficient of mean difference and to ascertain the relative risk-return status of them in the Indian IT sector during the period 1999-2000 to 2008-09. It also examines the legitimacy of the theoretical claims as evident in the literature of risk management.


## KEYWORDS

IT, Risk, Business, Economy, Earnings.

## INTRODUCTION

限usiness risk associated with a company stems from its business operations. It is, in fact, gleaned from the volatility of the company's capability of generating operating surplus. Business risk is caused by numerous factors which are generally categorized as economyspecific, industry-specific and company-specific. Economy-specific factors, being macro in nature, affect all sectors of the economy, such as, fluctuations in foreign exchanges, inflation rate, import, concentration of economic power etc. Industry-specific factors influence the industry to which the company belongs. Any special status enjoyed by the concerned industry, growth prospects in the market of the output produced or service rendered by the industry etc. are included in this category. Company-specific factors are uniquely linked with the company concerned such as cost structure, liquidity, managerial efficiency, culture, values etc. Economy risk, industry risk and company risk - these three components of business risk emanate from economy-specific factors, industry-specific factors and company-specific factors respectively. The genesis of company risk lies in instability in company's one or more fronts, important of which are instability in cost behaviour pattern, inconsistency in revenue generating capability using long term funds and instability in short term debt paying capability (Ghosh, 1997). These weaknesses lead to cost structure risk, capital productivity risk and liquidity risk (Sur, 2009). The economy risk and industry risk associated with a company remain largely uncontrollable while it is, to some extent, possible for the company to exercise control over the risk distinctively connected with its company-specific components, i.e. capital productivity risk, cost structure risk and liquidity risk. In theoretical terms, there is expected to be a high degree of positive association between risk and return and a company with high risk-low return profile is about to face immense difficulties to rotate its business wheel in the long run. However, the findings of several studies provide an absolutely reverse outcome which is in sharp contrast with the theoretical arguments as evident in the literature of risk management (Bettis and Mahajan 1985, Singh 1986, Oviatt and Bauerschmidt 1991, Mallik and Sur 2009).
With the spectacular changes in the economic environment consequent upon economic liberalization initiated in July 1991, the Indian corporate scenario is witnessing a rapid transformation. One notable feature of it is that information technology (IT) industry has established itself as a poster boy in accelerating the economic growth of our economy in the past few years. The IT sector in India has already proved its potentiality to generate foreign exchange earnings, high quality employment and also to contribute to the productivity in contrast with the rest of the industries in the economy. The Indian IT industry accounts for a $5.9 \%$ of the country's GDP and export earnings as of 2009 along with creating job opportunity directly or indirectly to a significant number of its tertiary sector workforce. More than 2.3 million people are provided employment in this sector which makes the industry one of the biggest job creators in India and a mainstay of the national economy. In March 2009, annual revenues from outsourcing operations in India amounted to US\$60 billion and this is expected to increase to US\$225 billion by
2020. As per the NASSCOM-Mckinsey Report, the volume of software exports from India is expected to reach the US $\$ 60$ billion target set for the fiscal year 2010. The purchasing power of a large section of Indian people affiliated to this sector has improved substantially in the recent years. It has also resulted in an increase in the gross production of goods and services in the Indian economy. So, it is not hard to understand that the growth of India's IT industry is very much instrumental in facilitating the economic progress of India.
Despite the fact that the IT sector has been playing a vital role in strengthening the Indian economy, much attention has not been paid so far to conduct research on the different financial aspects of this sector. Moreover, no empirical study has been carried out in India during the last two decades on the issue relating to the business risk associated with the players of the Indian IT sector. But especially considering the stiff competition that exists in the present day corporate world, the understanding, analyzing and measuring business risk are immensely important to the corporate executives to instigate managerial excellence by assessing the relative position of the company within the given pattern of industry risk which in turn reflects the capability to achieve stability and also for making risk-return trade off. Against this backdrop, the present study seeks to analyse the business risk in the Indian IT sector during the period 1999-2000 to 2008-09.

## OBJECTIVES OF THE STUDY

The present study is aimed at the following objectives:
a. To ascertain the business risk associated with each of the IT companies under study and to compare the same with the IT industry average.
b. To measure the company-specific components of business risk associated with each of the selected companies and to examine whether there was any uniformity among such components.
c. To analyse the relationship between business risk and its company-specific components of the selected companies under study.
d. To measure the joint effect of the company-specific components of the selected companies on their business risk.
e. To assess the relative risk-return status of the selected companies.
f. To evaluate the closeness of association between risk and return of the selected companies.
g. To examine whether the findings of the study conform to the theoretical arguments.

## METHODOLOGY OF THE STUDY

The study has been carried out with a sample of seventeen companies selected from the top twenty seven IT companies in India (based on the aggregate of total income and total assets) following purposive sampling procedure. This selection has been made considering 'The BW Real 500 ' published by the Business World, Vol. 28 Issue 23, Kolkata, October 27, 2008. The data of the selected companies for the period 1999-2000 to 2008-09 used in this study have been taken from secondary sources i.e. Capitaline Corporate Database of Capital Market Publishers (I) Ltd., Mumbai, India. For measuring business risk and its components associated with the selected companies Ginni's coefficient of mean difference has been used. Statistical techniques like Pearson's simple correlation analysis, Spearman's rank correlation analysis, Kendall's correlation analysis, Kendall's coefficient of concordance, multiple correlation analysis and multiple regression analysis. Statistical tests like t test, F test and Chi-square ( $\chi^{2}$ ) test have been applied at appropriate places.

## LIMITATIONS OF THE STUDY

a. This study is based only on the data contained in published financial statements.
b. This study is confined to the analysis of the company-specific components of the business risk. The issue relating to the analysis of industry risk and economy risk has not been taken into consideration in this study.
c. The matter in connection with minimization of cost structure risk through forex management does not come under the purview of this study.

## EMPIRICAL FINDINGS

a. In Table 1, the business risk (BR) of each of the selected companies in Indian IT sector has been measured by Ginni's coefficient (GC) of its return on capital employed (ROCE). This table shows that the BR of Mascon was the highest and it was followed by FTIL, Mahindra, Cranes, HCLT, Hexaware, Subex, Lgate Global, CMC, HCLI, Oracle, Wipro, Infotech, Moser, Rolta, Infosys and GTL respectively presented in a descending manner during the period under study. The degree of BR associated with Mahindra, FTIL, Cranes and Mascon was far above the IT industry average while that of the remaining fourteen companies under study was below the industry average.
b. Three major components of company-specific business risk, namely capital productivity risk (CPR), cost structure risk (CSR) and liquidity risk (LR) of each of the selected companies (shown in Table 2) have been measured by Ginni's coefficient of capital turnover ratio, that of cost to sales ratio and that of working capital ratio respectively. In this table, to examine whether any uniformity among CPR, CSR and LR of the selected companies exists or not, Kendall's coefficient of concordance (W) has been used. For testing the significance of such coefficient Chi-square ( $\chi^{2}$ ) test has been applied. It is evident from Table 2 that Cranes maintained the highest level of risk of not getting stable turnover by utilizing average long term funds during the period under study and it was followed by HCLI, CMC, Mascon, Wipro, Subex, Mahindra, HCLT, Lgate Global, Hexaware, GTL, FTIL, Infotech, Oracle, Infosys, Rolta and Moser respectively presented in a descending order. In respect of CSR, FTIL captured the top most position and it was followed by Cranes, Mascon, GTL, Mahindra, Subex, Moser, HCLT, Hexaware, Infotech, Lgate Global, Wipro, Rolta, Oracle, CMC, Infosys and HCLI respectively in that order. The risk in connection with short term debt paying capability was the maximum in Mascon, followed by Hexaware, HCLT, GTL, Subex, Oracle, Cranes, Infosys, Rolta, FTIL, Wipro, Mahindra, Moser, Lgate Global, Infotech, HCLI and CMC respectively. At a glance, lack of uniformity among CPR, CSR and LR of the selected companies was observed during the study period. Table 2 also reveals that the computed value of Kendall's coefficient of concordance was 0.44989 which was not found to be statistically significant at $5 \%$ level. It confirms that uniformity among the company specific components of business risk of the selected companies was absent during the period under study.
c. In Table 3, an attempt has been made to assess the extent of relationship between business risk and each of its company-specific components of the selected companies by using Spearman's rank correlation coefficient. In order to test whether these coefficients are statistically significant or not, $t$ test has been made. Table 3 discloses that the rank correlation coefficient between BR and CPR ( 0.548 ) and that between BR and CSR (0.563) were positive as well as found to be statistically significant whereas the rank correlation coefficient
between $B R$ and $L R$, though positive in nature ( 0.248 ), was not found to be statistically significant. Theoretically, there should be a positive correlation between $B R$ and its components. The correlation results found in the first two cases corroborate the theoretical argument while in case of LR the outcome of the correlation analysis fails to show strong evidence of positive association between LR and BR.
d. In Table 4, it has been attempted to investigate the joint effect of the selected components of the company risk associated with the companies under study on their BR by applying multiple correlation analysis and multiple regression analysis. The multiple correlation coefficient and the partial regression coefficients have been tested using $F$ test and $t$ test respectively. The regression equation that has been fitted in this regard is: $B R=b_{0}+b_{1} \cdot C P R+b_{2} \cdot C S R+b_{3} . L R$ where $b_{0}$ is the intercept, $b_{1}, b_{2}$ and $b_{3}$ are the partial regression coefficients. Table 4 reveals that for one unit increase in each CPR and CSR, the BR stepped up by 2.614 units and 27.4 units respectively which were found to be statistically significant. This outcome again matches the theoretical argument that higher the degree of CPR or CSR higher the degree of BR. For one unit increase in LR, the BR increased by 0.458 unit only which was not found to be statistically significant. It again confirms that the contribution made by LR towards enhancing BR of the selected companies was not at all noticeable. Table 4 also depicts that the multiple correlation coefficient of BR on CPR, CSR and LR was 0.72 which was found to be statistically significant. This table also discloses that the company - specific components CPR, CSR and LR contributed $51.8 \%$ of the variation in the BR of the selected companies during the period under study.
e. In Table 5.1, the risk-return profile of the selected companies in Indian IT sector has been assessed on the basis of business risk and overall profitability. The return on capital employed (ROCE) has been taken as the overall profitability measure in this analysis. It is observed from Table 5.1 that Infosys was the only company among the selected ones which maintained a low risk- high return combination whereas Mahindra was placed in the high risk-high return class. HCLI, HCLT, Oracles, Cranes, CMC and Wipro were in the moderate risk-moderate return class. Hexaware, Lgate Global and Subex maintained a combination of moderate risk and low return. Infotech and Rolta were placed in the low risk-moderate return category while Moser and GTL maintained a low risk-low return combination. FTIL and Mascon were placed in the high risk-moderate return class.
f. In Table 5.2, the risk-return status of the selected companies has been measured with reference to capital productivity risk and overall profitability. While making this measurement the ROCE has been used as the overall profitability indicator. Table 5.2 discloses that Infosys retained the same status by occupying low risk- high return cell. Hexaware, Lgate Global, Moser and GTL were placed in the low risk-low return class. A combination of high risk and moderate return was maintained by HCLI, Cranes and CMC. Mahindra was a moderate riskhigh return company whereas Subex was placed in the moderate risk-low return category. The cell representing a combination of low risk and moderate return was occupied by FTIL, HCLT, Infotech, Oracle and Rolta. Mascon and Wipro maintained a balance between risk and return by capturing moderate risk- moderate return cell.
g. Table 5.3 presents the risk-return status of the selected companies which has been assessed by examining the combination of cost structure risk and overall profitability. The ROCE has been used as the overall profitability criterion in this analysis. Table 5.3 shows that Infosys continued to keep itself in the most desirable category i.e. low risk-high return category. HCLI, Lgate Global, Oracle, Rolta, CMC, Wipro and Infotech were placed in the low risk-moderate return category. Moser, Subex and GTL maintained a combination of moderate risk and low return. Mahindra was in the moderate risk-high return class whereas the reverse combination i.e. high risk-moderate return combination was maintained by FTIL, Mascon and Cranes. A balance between risk and return by occupying moderate risk-moderate return cell was maintained by HCLT and Hexaware.
h. In Table 5.4 it has also been attempted to assess the risk-return profile of the companies under study by using the combination of liquidity risk and overall profitability. The ROCE has been taken as the overall profitability indicator in this assessment. Table 5.4 depicts that Infosys and Mahindra were placed in the most desirable class i.e. low risk-high return class. A combination of low risk and moderate return was maintained by FTIL, HCLT, Infotech, Rolta, CMC and Wipro whereas Lgate Global, Subex and GTL were found in the moderate risk- low return category. HCLT and Mascon maintained a combination of high risk and moderate return. Oracle and Cranes maintained a balance between risk and return by occupying moderate risk-moderate return cell while Moser adopted the similar policy by capturing low risk-low return cell. Hexaware, the only company among the selected ones, was placed in the most undesirable category i.e. high risklow return class.
i. In Table 6, the nature and extent of relationship between business risk and overall profitability and that between each of the companyspecific components of business risk and overall profitability of the selected companies have been assessed through correlation coefficients between the selected measures of risk and return taking into account their magnitudes (i.e. by Pearson's simple correlation coefficient), ranking of their magnitudes (i.e. by Spearman's rank correlation coefficient) and the nature of their associated changes (i.e. by Kendall's correlation coefficient). In order to test whether these coefficients are statistically significant or not, $t$ test has been used. The ROCE has been taken as the overall profitability indicator while making this analysis. Table 6 shows that all the three correlation coefficients between BR and ROCE and those between CPR and ROCE were positive which were not found to be statistically significant. This table also testifies that in case of correlation between CSR and ROCE and that between LR and ROCE all the six correlation coefficients were negative which were found to be statistically insignificant. So, the outcome of the correlation analysis fails to provide any strong association between business risk and return. It implies that high risk was not at all compensated by high risk premium in the Indian IT sector during the study period.

## CONCLUDING OBSERVATIONS

1. The maximum volatility in operating profitability was observed in Mascon while GTL enjoyed the least risk in its overall business operation. 76.5 per cent of the selected companies maintained the business risk at the level below the IT industry average during the period under study whereas the remaining 23.5 per cent of the selected ones kept it at the level above the industry average in the same period.
2. The highest rank was captured by Cranes in respect of capital productivity risk while cost structure and liquidity risks of it were ranked second and seventh respectively during the period of study. Similarly, HCLI enjoyed the lowest risk in cost structure front and occupied the sixteenth rank in respect of liquidity risk whereas in it the second highest volatility was found in capital productivity front during the period under study. This kind of disparity was observed in fifteen companies out of the seventeen companies under study (except Subex and Cranes). So, uniformity among capital productivity risk, cost structure risk and liquidity risk was absent during the study period. The outcome of the analysis of Kendall's coefficient of concordance made in this study also confirms the above inference.
3. The empirical results of the study on the relationship between $B R$ and CPR and that between $B R$ and CSR as found in the analysis of Spearman's rank correlation conform to the theoretical argument that the higher the degree of CPR the greater the degree of BR. However, the outcome of the study on the relationship between BR and LR fails to provide any strong evidence of positive relationship between them. So, it can be concluded that CPR and CSR made significant contribution towards enhancing BR of the companies under study during the study period while LR failed to do so in the same period.
4. The study of multiple regression of $B R$ on $C P R, C S R$ and $L R$ provides similar evidence confirming the significant positive influence of CPR and CSR on the BR of the selected companies during the period under study.
5. Lack of uniformity in respect of risk-return trade off among the selected IT companies was noticed. Rather a peculiar combination was observed in most of the cases. Infosys was considered as a risk averse but profit hunter. Hexaware, bearing the highest risk in respect of liquidity and yielding low return, faced a severe crisis regarding payment of short term debt during the period under study. The company should adopt appropriate measures to exercise control over its liquidity risk. Moser proved itself as a conservative risk-taker as it was placed in low risk - low return category in almost all cases during the study period. Although the level maintained by Mahindra in respect of business risk and company-specific components of it varied widely from low to high, the company established itself as a profit hunter during the period under study. Moderate volatility in the operating profitability or moderate instability in the cost behaviour pattern, capital productivity and liquidity of Subex was not at all well compensated as the company failed to occupy high or moderate return strata.
6. Although a high degree of positive relationship between business risk or its company - specific components and overall profitability is theoretically desirable, the analysis of interrelation between them made in this study fails to show strong evidence of positive or negative association between them. It reflects that high risk was not at all compensated by high risk premium i.e. high return in the Indian IT sector during the period under study.

## REFERENCES

1. Bettis, R.A. and Mahajan, V. 1985. Risk/Return Performance of Diversified Firms, Management Science, 31(7):785-799.
2. BW Real 500, Business World, Vol. 28 Issue 23, Kolkata, October 27,
3. Cootner, P.H. and Holland, D.M. 1970. Rate of Return and Business Risk, The Bell Journal of Economics and Management Science, 1 (2): 211-226.
4. Ghosh, T.P. 1997. Managing Corporate Risk: An Accounting Approach, Research Bulletin, XIV: 9-14.
5. Mallik, A.K. and Mallik, U.K. 1985 "Risk Analysis and Measurement from Published Financial Statements - A Case Study", Research Bulletin, IV (1): 45-48.
6. Mallik, A.K. and Sur, D. 2009. Business and Financial Risks Indian Corporate Sector: An Empirical Analysis in the Post-liberalisation Era, The ICFAI Journal of Applied Finance, 15 (4): 53-68.
7. Oviatt, B.M. and Bauerschmidt, A.D. 1991. Business Risk and Return: A Test of Simultaneous Relationships, Management Science, 37 (11):1405-1423.
8. Singh, J.V. 1986. Performance, Slack and Risk Taking in Organisational Decision Making, The Academy of Management Journal, 29 (3): 562585.
9. Sur, D. et.al 2006. Analysis of Business and Financial Risks: A Study of Hindalco Industries Limited, ICFAI Reader, IX (12): 53-59.
10. Sur, D. 2007. Business and Financial Risks of NTPC Ltd. in the Pre- and Post-liberalisation Periods: A Comparative Study, The ICFAI Journal of Applied Finance, 13 (10): 66-78.
11. Vedpuriswar, A.V. 2005. Derisking Risk Management, Indian Management, 44 (4): 66-80

## TABLES

| Table I: Ranks of Business Risk of the Selected Companies in the IT Sector |  |  |  |
| :--- | :--- | :--- | :--- |
| Company | Business Risk |  | Rank |
| Wipro | 11.22 | B | 12 |
| Infosys | 7.07 | B | 16 |
| HCLI | 11.62 | B | 10 |
| HCLT | 13.68 | B | 5 |
| Moser | 9.22 | B | 14 |
| Mahindra | 25.98 | A | 3 |
| Oracle | 11.36 | B | 11 |
| GTL | 6.97 | B | 17 |
| FTIL | 30.04 | A | 2 |
| Rolta | 7.80 | B | 15 |
| Subex | 12.13 | B | 7 |
| CMC | 12.04 | B | 9 |
| Cranes | 18.31 | A | 4 |
| Hexaware | 13.32 | B | 6 |
| Mascon | 36.79 | A | 1 |
| Lgate Global | 12.07 | B | 8 |
| Infotech | 9.56 | B | 13 |
| IT Industry Average | 14.66 |  |  |
| ' |  |  |  |

' $A$ ' denotes 'Business Risk above the Industry Average' and ' $B$ ' 'denotes Business Risk below the Industry Average'.
Source: Compiled and computed from 'Capitaline Corporate Database' of Capital Market Publishers (I) Ltd., Mumbai.

| Company | Capital Productivity Risk |  | Cost Structure Risk |  | Liquidity Risk |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Rank |  | Rank |  | Rank |
| Wipro | 0.71 | 5 | 0.08 | 12 | 0.80 | 11 |
| Infosys | 0.14 | 15 | 0.04 | 16 | 1.02 | 8 |
| HCLI | 2.84 | 2 | 0.03 | 17 | 0.27 | 16 |
| HCLT | 0.50 | 8 | 0.12 | 8 | 3.03 | 3 |
| Moser | 0.09 | 17 | 0.13 | 7 | 0.70 | 13 |
| Mahindra | 0.52 | 7 | 0.15 | 5 | 0.79 | 12 |
| Oracle | 0.17 | 14 | 0.06 | 14 | 1.26 | 6 |
| GTL | 0.25 | 11 | 0.16 | 4 | 2.50 | 4 |
| FTIL | 0.24 | 12 | 0.81 | 1 | 0.84 | 10 |
| Rolta | 0.10 | 16 | 0.07 | 13 | 0.91 | 9 |
| Subex | 0.59 | 6 | 0.14 | 6 | 1.33 | 5 |
| CMC | 1.09 | 3 | 0.05 | 15 | 0.14 | 17 |
| Cranes | 7.55 | 1 | 0.31 | 2 | 1.19 | 7 |
| Hexaware | 0.35 | 10 | 0.11 | 9 | 3.18 | 2 |
| Mascon | 0.95 | 4 | 0.22 | 3 | 4.24 | 1 |
| Lgate Global | 0.49 | 9 | 0.09 | 11 | 0.62 | 14 |
| Infotech | 0.19 | 13 | 0.10 | 10 | 0.56 | 15 |
| IT Industry Average | 0.99 | - | 0.16 | - | 1.38 | - |

*Kendall's coefficient of concordance among the selected company-specific components of business risk (W) is 0.44989 and Chi-Square ( X ) value of $\mathbf{W}$ is $\mathbf{2 1 . 5 9 4 7 2}$ being insignificant at 0.05 level
Source: Compiled and computed from 'Capitaline Corporate database' of Capital Market Publishers (I) Ltd., Mumbai.

| Table 3 : Analysis of Spearman's Rank Correlation between Business Risk and its Company-specific components <br> of the Selected Companies in Indian IT Sector |
| :--- |
| Spearman's Rank Correlation Coefficient between Business Risk and Capital Productivity Risk= 0.548* |
| Spearman's Rank Correlation Coefficient between Business Risk and Cost Structure Risk=0.563* |
| Spearman's Rank Correlation Coefficient between Business Risk and Liquidity Risk=0.248 |
| * Significant at 0.05 level |
| Source: Compiled and computed from 'Capitaline Corporate Database' of Capital Market Publishers (I) Ltd., Mumbai. |


| Multiple Regression Equation of BR on CPR, CSR and LR:$B R=b_{0}+b_{1} \cdot C P R+b_{2} \cdot C S R+b_{3} \cdot L R$ |  |  |
| :---: | :---: | :---: |
| Variable | Partial Regression Coefficient | t value |
| CPR | 2.614 | 1.839* |
| CSR | 27.400 | 3.021*** |
| LR | 0.458 | 0.504 |
| Constant | 6.243 | 2.107* |
| Multiple Correlation Coefficient of BR on CPR, CSR and LR:$\begin{aligned} & R_{\text {B.PSL }}=0.72 \\ & R_{\text {B.PSL }}^{2}=0.518 \\ & F=4.655^{* *} \end{aligned}$ |  |  |
| *Significant at 0.10 level <br> ** Significant at 0.05 level <br> *** Significant at 0.01 level |  |  |

Table 5.1: Risk-return Status of the Selected Companies in Indian IT Sector based on Combination of Business Risk and Overall Profitability

|  | High ( $\geq$ 40\%) | Moderate (>20\% but <40\%) | Low ( $\leq 20 \%$ ) |
| :---: | :---: | :---: | :---: |
| High ( $\geq 20$ ) | Mahindra | FTIL,Mascon |  |
| Moderate ( $>10$ but <20) |  | HCLI, HCLT, Oracle, Cranes, CMC, Wipro | Hexaware, Lgate Global, Subex |


|  |  |  |  |
| :--- | :--- | :--- | :--- |
| Low (క10) | Infosys | Infotech, Rolta | Moser, GTL |
| Source: Compiled and computed from 'Capitaline Corporate Database' of Capital Market Publishers (I) Ltd., Mumbai. |  |  |  |

Table 5.2: Risk-return Status of the Selected Companies in Indian IT Sector based on Combination of Capital Productivity Risk and Overall Profitability

|  | High ( $\geq$ 40\%) | Moderate (>20\% but <40\%) | Low ( $520 \%$ ) |
| :---: | :---: | :---: | :---: |
| High ( $\geq 1$ ) |  | HCLI , Cranes, CMC |  |
| Moderate (>0.5 but <1) | Mahindra | Mascon, Wipro | Subex |
| Low ( 50.5 ) | Infosys | FTIL, HCLT, Infotech, Oracle, Rolta | Hexaware, Lgate Global. Moser, GTL |

Table 5.3: Risk-return Status of the Selected Companies in Indian IT Sector based on Combination of Cost Structure Risk and Overall Profitability

|  | High ( $\geq$ 40\%) | Moderate (>20\% but <40\%) | Low ( $520 \%$ ) |
| :---: | :---: | :---: | :---: |
| High ( $\geq 0.2$ ) |  | FTIL, Mascon, Cranes |  |
| Moderate (>0.1 but <0.2) | Mahindra | HCLT, Hexaware | Moser, Subex, GTL |
| Low ( $\leq 0.1$ ) | Infosys | HCLI, Lgate Global, Oracle, Rolta, CMC, Wipro, Infotech, |  |


|  | High ( $\geq$ 40\%) | Moderate (>20\% but <40\%) | Low ( $520 \%$ ) |
| :---: | :---: | :---: | :---: |
| High ( $\geq 3$ ) |  | HCLT, Mascon | Hexaware |
| Moderate (>1 but <3) |  | Oracle, Cranes | Lgate Global, Subex, GTL |
| Low ( $\leq 1$ ) | Infosys, Mahindra | FTIL, HCLT, Infotech, Rolta, CMC, Wipro | Moser |
| Source: Compiled and computed from 'Capitaline Corporate Database' of Capital Market Publishers (1) Ltd., Mumbai. |  |  |  |


| Table 6: Analysis of Correlation between Risk and Return of the Selected Companies in Indian IT Sector |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :---: |
| Correlation <br> Measure | Correlation between <br> Business Risk and Overall <br> Profitability | Correlation between Capital <br> Productivity Risk and Overall <br> Profitability | Correlation between Cost <br> Structure Risk and Overall <br> Profitability | Correlation between <br> Liquidity Risk and Overall <br> Profitability |  |
| Pearson's simple <br> correlation <br> coefficient | 0.26 | 0.061 | -0.105 | -0.239 |  |
| Spearman's rank <br> correlation <br> coefficient | 0.194 | 0.375 | -0.345 | -0.206 |  |
| Kendall's <br> correlation <br> coefficient | 0.147 | 0.235 | -0.281 | -0.162 |  |
| Source: Compiled and computed from 'Capitaline Corporate Database' of Capital Market Publishers (I) Ltd., Mumbai. |  |  |  |  |  |

APPENDIX I: LIST OF SAMPLE COMPANIES
Wipro Ltd (Wipro)
Infosys Technologies Ltd (Infosys)
HCL Infosystems (HCLI)
HCL Technologies (HCLT)
Moser Baer India (Moser)
Tech Mahindra Ltd (Mahindra)
Oracle Financial Services Software (Oracle) GTL (GTL)
Financial Technologies (India) Ltd (FTIL)
Rolta India Ltd (Rolta)
Subex Ltd (Subex)
CMC Ltd (CMC)
Cranes Software International (Cranes)
Hexaware Technologies Ltd (Hexaware)
Mascon Global Ltd (Mascon)
Lgate Global Ltd (Lgate Global) Infotech Enterprises (Infotech)

# EMOTIONAL COMPETENCY CLUSTERS AND STAR PERFORMER IN SOFTWARE PROJECT TEAM 

# DR. A VELAYUDHAN <br> ASSOCIATE PROFESSOR <br> DEPARTMENT OF PSYCHOLOGY BHARATHIAR UNIVERSITY <br> COIMBATORE - 641046 

DR. S GAYATRIDEVI<br>ASST. PROFESSOR<br>DEPARTMENT OF PSYCHOLOGY AVINASHILINGAM UNIVERSITY FOR WOMEN COIMBATORE - 641043

MS. S. SRIVIDYA UGC PROJECT FELLOW DEPARTMENT OF PSYCHOLOGY BHARATHIAR UNIVERSITY COIMBATORE - 641046


#### Abstract

Teams are almost imperative in contemporary business firms and interaction in teams points to the importance of emotional abilities for personal and organizational success. Emotional competence is a skill needed in all these roles in order to understand other team members and to bond with them to ensure team cohesion and productivity. Emotional Competencies are the outgrowth of Emotional Intelligence (EI) developed by Daniel Goleman (1998) reflects an individual's potential for mastering the skills of four domains/clusters viz.,Self-Awareness, SelfManagement, Social Awareness, and Relationship Management resulting in eighteen Emotional Competencies nested in the four clusters. The present study aimed at identifying the Emotional Competencies in groupings, across clusters, that allow competencies to support one another in a software project team and to identify the star performer of a software project team who would exhibit higher competencies and demonstrate strengths than other members of the team. The results show that the hypothesis of the study being confirmed and consultant emerging as a star performer in a software project team.


## KEY WORDS

Software Project team, self awareness, self management, social awareness, relationship management.

## INTRODUCTION

JJn the last decade, teams are almost imperative in contemporary business firms for organizing work resulting in fewer levels of management and management styles which are less autocratic. There is a move toward knowledge and team-based, client-oriented jobs so that individuals generally have more autonomy, even at the lower levels of organizations. Hence human interaction in teams points to the importance of social and emotional abilities for personal and organizational success resulting in the changes in the criteria for success at work. Hence, the management of today's organizations are focusing towards intelligence pertaining to emotions and how looking at how it is related to the performance of organization members (Caruso and Salovey, 2004) The performance of the incumbent is adjudged by how well he/she handle oneself and with others which is strongly influenced by personal qualities such as perseverance, self-control, and skill in getting along with others.
Emotional intelligence is the missing link that unites conventional "can do" ability determinants of job performance with "will do" dispositional determinants. Modern organizations now offer learning and development that is explicitly labeled as "emotional intelligence" or "emotional competence" training. (Serrat, 2009). Since there are several roles that team members assume-such as group member, negotiator, and as a leader, Emotional competence is a skill needed in all these roles in order to understand other team members and to bond with them to ensure team cohesion and productivity.

## REVIEW OF LITERATURE

Emotional Competencies are the outgrowth of Emotional Intelligence (EI), a widely researched topic, which is recognized as an important issue in the workplace. The framework of emotional intelligence (EI) developed by Goleman (1998) reflects an individual's potential for mastering the skills of four domains/clusters viz.,Self-Awareness, Self-Management, Social Awareness, and Relationship Management resulting in eighteen Emotional Competencies nested in the four clusters of general El abilities.
Although an individual's Emotional Intelligence determines his or her potential for learning the practical skills, the Emotional Competence shows how much of that potential one has realized by learning and mastering skills and translating intelligence into on-the- job capabilities. Hence Emotional Competencies are job skills that can be learned and an underlying El ability is necessary, though not sufficient, to manifest
competence in any one of the four El domains. Researches have shown that across all categories of jobs and in all kinds of organizations, El matters in staff turnover, (McClelland, 1998) sales, (Spencer \& Spencer, 1993, Hay/McBer, 2000) and productivity (Seligman, 1990, Hay/McBer 2000, Boyatzis \& Burrus 1995) Competency research in over 200 companies and organizations worldwide suggests that about one-third of this difference is due to technical skill and cognitive ability while two-thirds is due to emotional competence (Goleman, 1998). In top leadership positions, over four-fifths of the difference is due to emotional competence.
Researches have pointed out how the Emotional Competencies are crucial in various jobs. For example , in the first domain of Self Awareness, Emotional Self-Awareness proved crucial for financial planners' job performance (Goleman, 1998), Accurate Self-Assessment was the competence found in virtually every "star performer" of knowledge workers such as computer scientists, auditors. High degree of self confidence distinguishes the best from average performers among supervisors, managers, and executives, (Boyatzis, 1982).
Similarly, in the second domain namely Self Management, empirical evidence show that emotional self control competency was found to be crucial for small business owners and employees, counselors and psychotherapists, flight attendants (Boyatzis \& Burrus, 1995; Spencer \& Spencer, 1993). Conscientiousness distinguishes the model organizational citizens (Barrick, Mount, \& Strauss, 1993). Achievement Orientation as the competence drives the success of entrepreneurs (Spencer and Spencer, 1993) and initiative is key to outstanding performance in industries that rely on sales, such as real estate, and to the development of personal relationships with clients, such as financial services or consulting (Crant, 1995).Researches have shown that empathy competence is vital for managers of product development teams, effective sales among large and small retailers (Spencer \& Spencer, 1993).
In the third domain namely Social Awareness, Service orientation competence play a key role in the ability to identify a client's or customer's often unstated needs and concerns and then match them to products or services; this empathic strategy distinguishes star sales performers from average ones (Spencer \& Spencer, 1993).Researches have pointed out organizational awareness competency is vital to the behind-thescenes networking and coalition building that allows individuals to wield influence, no matter what their professional role is. (Boyatzis, 1982).
The fourth domain namely the Relationship Management includes a set of competencies which includes essential Social Skills. Researches have shown that Developing Others and influence are hall mark competencies of excellent coaches and mentors, outstanding leader, superior managers among sales managers, (Spencer and Spencer, 1993). Similarly Communication are effective in the give-and-take of emotional information and builds on both managing one's own emotions and empathy; a healthy dialogue depends on being attuned to others' emotional states and controlling the impulse (Goleman, 1998).Change Catalyst competency is highly valued among leaders who can articulate a compelling vision of the new organizational goals. A leader's competence at catalyzing change brings greater efforts and better performance from subordinates, making their work more effective (House, 1998).The Collaboration and Teamwork competence is increasingly important in team-based work in many organizations. And Collaboration is particularly crucial to the success of managers; a deficit in the ability to work cooperatively with peers was, in one survey, the most common reason managers were fired (Sweeney, 1999).
The above mentioned literature point out the need for various Emotional Competencies in various individual job positions. However, the observations of Boyatzis, Goleman and Rhee (2000) formed the basis of the present study. Boyatzis, Goleman and Rhee (2000) argues that in life-and particularly on the job-people exhibit these competencies in groupings, often across clusters, that allow competencies to support one another. Emotional Competencies seem to operate most powerfully in synergistic groupings, with the evidence suggesting that mastery of a "critical mass" of competencies is necessary for superior performance (Boyatzis, Goleman and Rhee, 2000). Other researchers have reported that competencies operate together in an integrated fashion, forming a meaningful pattern of abilities that facilitates successful performance in a given role or job (Nygren \& Ukeritis, 1993).
Based on the review of the above mentioned literature, the present study aimed to identify distinctive groupings of competencies that tend to typify high-performing individuals in a software project team and the difference among the software team. Based on the observation of the structure and working of the software teams, it was found that a software project team includes five sets of professionals on the basis of the nature of their work, designation, and overall work experience. The five groups of software professionals are Trainees, Software Engineers, Team Leaders, Consultants and Project Managers.
The reasons for choosing a software project teams are (a) the software project team is very versatile and diversified in terms of demographic, skill competencies, and short time goals and software project team members work as subordinates, as leaders, mentors who need to have Emotional Competencies depending on the positions and the responsibilities they carry. (b)Moreover, software projects are usually for a very short period of duration and have high temporal constraints which require emotional balancing. (c) Besides a software project team is unique in nature in terms of the role, experience, contribution of the project members on various stages of the project. (d) There exist scant researches as how Emotional Competencies differ among software team members. Hence the present research aims at identifying the Emotional Competencies in groupings, across clusters that allow competencies to support one another in a software project team.
McClelland (1998) states that along with emotional competency clusters comes the notion of a tipping point-the point at which strength in a competence makes a significant impact on performance. Each competence can be viewed along a continuum of mastery; at a certain point along each continuum there is a major leap in performance impact. McClelland (1998) states that a tipping point effect is found when people exhibited excellence in six or more competencies. McClelland argues that a critical mass of competencies above the tipping point distinguishes top from average performers. The typical pattern is that stars are above the tipping point on at least six El competencies and demonstrate strengths in at least one competency from each of the four clusters. This effect has been replicated in Boyatzis and Burrus research (1995), which demonstrated that meeting or surpassing the tipping point in at least three of the four El clusters was necessary for success among highlevel leaders in a large financial services organization. Boyatzis, Goleman and Rhee (2000) found that both a high degree of proficiency in several aptitudes in the same cluster and a spread of strengths across clusters are found among those who exhibit superior organizational performance. Hence the present study also aims at identifying the star performer of a software project team who would exhibit higher competencies and demonstrate strengths than other members of the team in at least one competency from each of the four clusters.

HYPOTHESIS 1: There exists difference in critical mass of competence and demonstration of strengths in at least one competence from each of the four clusters among the software project team members.

## METHODOLOGY

The Emotional Competence Inventory (E.C.I 2.0) consists of 73 items for which six alternatives ranging from never, rarely, sometimes, often, consistently, don't know are provided. The seventy three item measures the four clusters namely Self Awareness (11), Self Management (25), Social Awareness (12) and Relationship Management (25). A Pilot Study was conducted using the Emotional Competence Inventory (E.C.I.) on a sample comprising of thirty software professionals was taken from an entrepreneur-based software company in Coimbatore. After an interval of one month, the test was administered to the same group to find out the reliability of the tests. The reliability of the questionnaire was established using "test-retest" method in a sample of thirty software professionals. The reliability of the scales was found to be above 0.7 in all the dimensions. The validity of the questionnaire was established by means of face validity. Two hundred software professionals formed the final sample which comprised of twenty-five Trainees, eighty-five Software Engineers, thirty Team Leaders, thirty Consultants and thirty Project Managers. The tests were administered individually to all the software team members. The differences among the five groups of Software Professionals with regard to Emotional Competencies were assessed using Multivariate Analysis of Variance (MANOVA) as there were more number of variables. Further, post hoc tests were used to find the differences among the members of the software project team with regard to their scores in emotional competencies. The statistical techniques were applied in the analysis of the data using the Statistical Package for Social Sciences (SPSS).

## RESULTS

The results of the MANOVA on Emotional Competence among the five groups of Software Professionals are presented in Table 1 and 2 respectively. Table 2 shows the scores of the five groups of Software Professionals compared to the eighteen dimensions of Emotional Competence Inventory. Eighteen post hoc tests were conducted to analyze the difference among the professional with regard to the eighteen dimensions of the Emotional Competence Questionnaire. Tables 3 to 11 present the results of the post hoc tests in which the differences were found between the members of the software team members.

TABLE 1: MULTIVARIATE TESTS OF SIGNIFICANCE (ECI)

| EFFECT |  | VALUE | F | DF | HYPOTHESIS DF | SIGNIFICANCE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| INTERCEPT | Pillai's | 0.986 | 689.047 | 18.000 | 178.000 | * |
|  | Wilk's Lambda Hotelling's Trace | 0.014 | 689.047 | 18.000 | 178.000 | * |
|  | Roy's Largest Root | 69.679 | 689.047 | 18.000 | 178.000 | * |
|  |  | 69.679 | 689.047 | 18.000 | 178.000 | * |
| SOFTWARE PROFESSIONALS | Pillai's | 0.671 | 2.027 | 72.000 | 724.000 | * |
|  | Trace |  |  |  |  |  |
|  | Wilk's Lambda Hotelling's Trace | 0.466 | 2.093 | 72.000 | 702.000 | * |
|  | Roy's Largest Root | 0.880 | 2.158 | 72.000 | 706.000 | * |
|  |  | 0.460 | 4.621 | 18.000 | 181.000 | * |

In Table 2, the F value shows that there is a significant difference among the five groups of Software Professionals with regard to Emotional Competence.


TABLE 3: TEST OF BETWEEN-SUBJECT EFFECTS

| SOURCE | DEPENDENT VARIABLE | TYPE III SUM OF SQUARES | DF | MEAN SQUARE | F | SIGNIFICANCE |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SOFTWARE | Emotional self Awareness | 14.882 | 4 | 3.720 | 0.728 | NS |
|  | Accurate Self Assessment | 66.862 | 4 | 16.716 | 2.182 | ** |
|  | Self Confidence | 262.233 | 4 | 65.558 | 7.497 | * |
|  | Emotional Self Control | 25.738 | 4 | 6.435 | 0.739 | NS |
|  | Trustworthiness | 42.693 | 4 | 10.673 | 1.153 | NS |
|  | Adaptability | 138.125 | 4 | 34.561 | 2.932 | ** |
|  | Achievement Orientation | 32.702 | 4 | 8.175 | 0.984 | NS |
|  | Initiative | 40.990 | 4 | 10.247 | 0.996 | NS |
|  | Optimism | 199.113 | 4 | 47.278 | 5.856 | * |
|  | Organizational Awareness | 108.493 | 4 | 27.123 | 2.639 | ** |
| PROFFESSIONAL. | Service orientation | 359.609 | 4 | 89.902 | 8.470 | * |
|  | Empathy | 20.501 | 4 | 5.125 | 0.618 | NS |
|  | Developing Others | 4.366 | 4 | 1.091 | 0.129 | NS |
|  | Inspirational Leadership | 39.762 | 4 | 9.940 | 0.927 | NS |
|  | Influence | 110.943 | 4 | 27.736 | 2.213 | ** |
|  | Change Catalyst | 62.583 | 4 | 15.646 | 0.877 | NS |
|  | Conflict Management | 40.116 | 4 | 10.029 | 1.320 | NS |
|  | Teamwork and Collaboration | 119.666 | 4 | 29.916 | 2.934 | ** |
| ERROR | Emotional self Awareness | 996.618 | 195 | 5.111 |  |  |
|  | Accurate Self Assessment | 1494.093 | 195 | 7.662 |  |  |
|  | Self Confidence | 1705.162 | 195 | 8.744 |  |  |
|  | Emotional Self Control | 1698.262 | 195 | 8.709 |  |  |
|  | Trustworthiness | 1804.987 | 195 | 9.256 |  |  |
|  | Adaptability | 2296.895 | 195 | 11.779 |  |  |
|  | Achievement Orientation | 1619.493 | 195 | 8.305 |  |  |
|  | Initiative | 2005.885 | 195 | 10.287 |  |  |
|  | Optimism | 1574.387 | 195 | 8.074 |  |  |
|  | Organizational Awareness | 2003.887 | 195 | 10.276 |  |  |
|  | Service orientation | 2069.746 | 195 | 10.614 |  |  |
|  | Empathy | 1616.999 | 195 | 8.292 |  |  |
|  | Developing Others | 1651.154 | 195 | 8.467 |  |  |
|  | Inspirational Leadership | 2090.718 | 195 | 10.722 |  |  |
|  | Influence | 2444.012 | 195 | 12.533 |  |  |
|  | Change Catalyst | 3478.917 | 195 | 17.841 |  |  |
|  | Conflict Management | 1481.839 | 195 | 7.599 |  |  |
|  | Teamwork and Collaboration | 1988.334 | 195 | 10.197 |  |  |
| TOTAL | Emotional self Awareness | 17392.000 | 200 |  |  |  |
|  | Accurate Self Assessment | 48165.000 | 200 |  |  |  |
|  | Self Confidence | 61101.000 | 200 |  |  |  |
|  | Emotional Self Control | 48542.000 | 200 |  |  |  |
|  | Trustworthiness | 53304.000 | 200 |  |  |  |
|  | Adaptability | 74104.000 | 200 | - |  |  |
|  | Achievement Orientation | 51865.000 | 200 |  |  |  |
|  | Initiative | 42517.000 | 200 |  |  |  |
|  | Optimism | 53284.000 | 200 |  |  |  |
|  | Organizational Awareness | 52738.000 | 200 |  |  |  |
|  | Service orientation | 61151.000 | 200 |  |  |  |
|  | Empathy | 47542.000 | 200 |  |  |  |
|  | Developing Others | 50828.000 | 200 |  |  |  |
|  | Inspirational Leadership | 51680.000 | 200 |  |  |  |
|  | Influence | 47465.000 | 200 |  |  |  |
|  | Change Catalyst | 58986.000 | 200 |  |  |  |
|  | Conflict Management | 43485.000 | 200 |  |  |  |
|  | Teamwork and | 59230.000 | 200 |  |  |  |

** Significant at 0.05 level, *Significant at 0.01 level NS=Not Significant
Source: Primary data
The F value showed that there exists no significant difference with regard to the Emotional Competencies of emotional self awareness, emotional self control, achievement orientation, initiative, empathy, developing others, inspirational leadership, change catalyst, and conflict management of team members. The F value indicates a significant difference between the five groups of software professionals in the dimensions of Accurate Self Assessment, Self Confidence, Adaptability, Optimism, Organizational Awareness, Service Orientation, and

Teamwork and Collaboration. The results have shown that the above mentioned seven Emotional Competencies in groupings, across clusters, support one another in a software project team.
Further post hoc tests were conducted to analyze hypothesis 1 . The results of the nine post hoc tests that showed differences between the software professionals in the dimensions of emotional competences are presented.
POST HOC TESTS - EMOTIONAL COMPETENCE HOMOGENEOUS SUBSETS
TABLE 3: DIFFERENCE AMONG SOFTWARE PROFESSIONALS WITH REGARD TO ACCURATE SELF-ASSESSMENT

| GROUP | N | SUBSET |  |  |
| :--- | :--- | :--- | :--- | :---: |
|  |  | 1 | 2 |  |
| Trainee | 25 | 14.08 |  |  |
| Project manager | 30 | 15.17 | 15.17 |  |
| Software engineer | 85 | 15.22 | 15.22 |  |
| Team leader | 30 | 15.47 | 15.47 |  |
| Consultant | 30 |  | 16.27 |  |
| Significance |  | 0.062 | 0.143 |  |

## Source: Primary data

The results indicate that there is a significant difference between Trainees and Consultants as far as the dimension of Accurate Self-Assessment of team members is concerned. The results may be due to the fact that consultants who are technical experts in Software project team have higher experiences and are usually open to candid feedback, new perspectives, continuous learning, and self-development. They are reflective, learning from experience.

TABLE 4: DIFFERENCE AMONG SOFTWARE PROFESSIONALS WITH REGARD TO SELF-CONFIDENCE

| GROUP | N | SUBSET |  |
| :--- | :--- | :--- | :--- |
|  |  | 1 | 2 |
| Trainee | 30 | 15.63 |  |
| Project manager | 25 | 16.48 |  |
| Software engineer | 85 | 16.81 |  |
| Team leader | 30 |  | 18.50 |
| Consultant | 30 |  | 19.13 |
| Significance |  | 0.127 | 0.385 |
| Source: Primary |  |  |  |

Source: Primary data
The results of Table 5 show that Team Leaders, Trainees and Software Engineers differ significantly from Consultants and Project Managers with regard to Self-Confidence. The results may be attributed to the fact that the level of Self-Confidence was in fact a stronger predictor of performance than the level of skill or previous training and since the Consultant and Team leaders have higher experience might be the reason behind being high on self confidence.

TABLE 5 : DIFFERENCE AMONG SOFTWARE PROFESSIONALS WITH REGARD TO TRUSTWORTHINESS

| GROUP |  | SUBSET |  |
| :--- | :--- | :--- | :--- |
|  |  | 1 | 2 |
| Trainee | 25 | 15.08 |  |
| Project manager | 85 | 15.91 | 15.91 |
| Software engineer | 30 | 16.23 | 16.23 |
| Team leader | 30 | 16.33 | 16.33 |
| Consultant | 30 |  | 16.73 |
| Significance |  | 0.129 | 0.321 |

> Source: Primary data

The results on the trustworthiness dimension of the Emotional Competence Scale show that there is a significant difference in the dimension of Trustworthiness between Trainees and Consultants. The results may be because, compared to Consultants who are well established in the organization as well as in the team, Trainees are relatively new to the job and the team environment. Hence it is possible that Project Managers seem to be trust worthier taking into consideration their work experience, loyalty to the organization and technical competence compared to the relatively new trainees.

TABLE 6: DIFFERENCE AMONG SOFTWARE PROFESSIONALS WITH REGARD TO ADAPTABILITY

| GROUP | $N$ | SUBSET |  |
| :--- | :--- | :--- | :--- |
|  |  | 1 | 2 |
| Trainee | 85 | 18.19 |  |
| Project manager | 25 | 18.48 |  |
| Software engineer | 30 | 19.37 | 19.37 |
| Team leader | 30 | 19.40 | 19.40 |


| Consultant | 30 |  | 20.50 |
| :--- | :--- | :--- | :--- |
| Significance |  | 0.195 | 0.208 |

## Source: Primary data

With regard to the Adaptability dimension of Emotional Competence, the results indicate that there is a significant difference between Trainees and Software Engineers compared to Project Manager, Consultants and Team Leaders. The results may be due to the fact that adaptability requires the flexibility to take into account multiple perspectives in a given situation, emotional strength, the ability to stay comfortable with ambiguity, and remain calm in the face of the unexpected events. Moreover, Project Manager, Consultants and Team Leaders work in a situation that involves businesses with less formal and more ambiguous, autonomous, and flexible roles for employees. The results reflect the findings of Amabile (1988) which states that multidisciplinary team-oriented structures experience greater innovation and hence there exists differences among the professionals in the Adaptability dimension. Moreover, the Trainees and Software Engineers who perform operational level tasks are relatively new to the work environment compared to the team leaders who are executives. Hence it is understood that they lack the requisite experience with regard to the work environment as well as to the work itself. Hence the team leaders have a big edge over the Trainees and Software Engineers in terms of the Competence of Adaptability.

TABLE 7: DIFFERENCE AMONG SOFTWARE PROFESSIONALS WITH REGARD TO OPTIMISM

| GROUP | N | SUBSET |  |  |
| :--- | ---: | :--- | :--- | :--- |
|  |  | 1 | 2 | 3 |
| Trainee | 30 | 15.00 |  |  |
| Project manager | 85 | 15.64 | 15.64 |  |
| Software engineer | 25 | 15.64 | 15.64 |  |
| Team leader | 30 |  | 16.53 |  |
| Consultant | 30 |  |  | 18.13 |
| Significance | 0.393 |  |  |  |
| 0.229 |  |  |  |  |

Source: Primary data
The results in the Optimism dimension show that there exists significant difference between Trainees and Software Engineers compared to Team Leaders, Consultants and Project Managers. The results may be due to their perspectives and attitudes that have related to their leadership styles and nature of their work so as to accomplish the targets of the team.

TABLE 8: DIFFERENCE AMONG SOFTWARE PROFESSIONALS WITH REGARD TO ORGANIZATIONAL AWARENESS

| GROUP | $N$ | SUBSET |  |
| :--- | :--- | :--- | :--- |
|  |  | 1 | 2 |
| Trainee | 30 | 15.07 |  |
| Project manager | 85 | 15.49 |  |
| Software engineer | 25 | 15.88 | 15.88 |
| Team leader | 30 | 16.53 | 16.53 |
| Consultant | 30 |  | 17.33 |
| Significance |  | 0.090 | 0.082 |

## Source: Primary data

The results showed that there exists difference among Team Leaders and Software Engineers compared to Trainees, Consultants and Project Managers in terms of their Organizational Awareness. This can be attributed to their respective designations and nature of work. As these professionals graduate to higher levels in the organizational hierarchy, they are required to accomplish bigger responsibilities in their work environments. This in turn reflects in creating a greater sense of awareness regarding the scope of growth for the organization as well as one's progress in the organization in terms of one's career succession plan. Besides, the position of Software Engineers and Team Leaders offers more career opportunities for growth. Trainees form the introductory phase in the career of a software professional whereas Consultants and Project Managers are the peak designations.

TABLE 9: DIFFERENCE AMONG SOFTWARE PROFESSIONALS WITH REGARD TO SERVICE ORIENTATION

| GROUP | SUBSET |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  |  | 1 | 2 | 3 |
| Trainee |  | 15.33 |  |  |
| Project manager | 25 | 16.16 |  |  |
| Software engineer | 85 | 16.82 | 16.82 |  |
| Team leader | 30 |  | 18.00 |  |
| Consultant | 30 |  |  | 19.77 |
| Significance |  | 0.079 | 0.143 | 1.000 |



Source: Primary data
Table 10 shows there is a significant difference with regard to Service Orientation among the Project Managers, Consultants and the group comprising Trainees, Software Engineers and Team Leaders. This can be due to the nature of their jobs. In the Software industry, it is the strategic level of executives that carry out the front-end jobs of interacting with the clients. Thus in most of the entrepreneur-based companies
it is the Project Manager who is responsible for the entire project and the client and not the Team Leader, Software Engineer or the Trainees. The individuals of the latter category are assigned back-end jobs pertaining to the architecture and development of the software and do not interact with the client at all. Hence it is the Project Manager's duty to anticipate, recognize and meet the client's needs. The Consultant also interacts with the client, but only in special cases that needs expertise pertaining to specialized domains. Hence this entitles consultants also to anticipate and recognize the needs and requirements of the client.

Table 10: Difference among software professionals with regard to influence

| GROUP | $N$ | SUBSET |  |  |
| :--- | :--- | :--- | :--- | :---: |
|  |  | 1 | 2 |  |
| Trainee | 25 | 14.40 |  |  |
| Project manager | 85 | 14.55 |  |  |
| Software engineer | 30 | 14.83 |  |  |
| Team leader | 30 | 15.17 | 15.17 |  |
| Consultant | 30 |  | 16.67 |  |
| Significance |  | 0.431 | 0.085 |  |
| Source: Primary |  |  |  |  |

## Source: Primary data

The results in the table 10 indicate that there is a significant difference between Consultants and Project Managers and the rest of the software professionals as far as the dimension of Influence of Team Members are concerned. This can be accounted to the difference in powers and autonomy between the executive and operational level employees. Besides, the influence competence emerges when emotions are handled and managed effectively in other people and are persuasive. The most effective people sense others' reactions and fine-tune their own responses to move interaction in the best direction. Influence competence draw on a wider range of persuasion strategies than others do require them to be genuine and put collective goals before their self-interests; otherwise what would manifest as effective persuasion becomes manipulation. Hence the present results show that Consultants have a good amount of influence over other software professionals.

Table 11: Difference among software professionals with regard to teamwork and Collaboration

| GROUP | $N$ | SUBSET |  |
| :--- | :--- | :--- | :--- |
|  |  | 1 | 2 |
| Trainee | 30 | 15.33 |  |
| Project manager | 25 | 16.72 | 16.72 |
| Software engineer | 85 |  | 16.96 |
| Team leader | 30 |  | 17.27 |
| Consultant | 30 |  | 18.07 |
| Significance |  | 0.078 | 0.120 |

Source: Primary data
The results on the team work and Collaboration dimension of the Emotional Competence indicates that the Consultants show a significant difference from the rest of the software professionals. The results are perfectly attuned to several research findings which categorically observe Collaboration and Teamwork competence has taken on increased importance in the last decade with the trend toward team-based work in many organizations. Teamwork itself depends on the collective Emotional Intelligence of its members; the most productive teams are those that exhibit Emotional Intelligence competencies at the team level. The findings of Sweeney (1999) state that the deficit in the ability to work cooperatively with peers was, in one survey, the most common reason, managers were fired. Besides the results of Totterdell et al (1998) show that team members tend to share moods, both good and bad-with better moods improving performance. Finally, positive emotions and harmony on a top-management team predict its effectiveness (Barsade and Gibson, 1999).
Overall, it was observed that the Trainees, Software Engineers, Team Leaders, Project Managers, and Consultants showed no significant difference with regard to the Emotional Competencies of emotional self awareness, emotional self control, achievement orientation, initiative, empathy, developing others, inspirational leadership, change catalyst, and conflict management. This implies that these are competencies that are possessed by all the five groups of software professionals irrespective of the designations and roles that they play in the team. On the other hand, it can also be seen that the various categories of software professional show significant difference with regard to the Emotional Competencies of Accurate Self Assessment, Self Confidence, Trustworthiness, Adaptability, Optimism, Organizational Awareness, Service Orientation, Influence, Teamwork and Collaboration. This implies that these are competencies that have been found to vary in terms of being applied by these professionals in their work place. This can be attributed to their designations, and nature of work in the team. These differences can also be due to the overall work experience that these individual professionals possess.
The results have identified Accurate Self Assessment, Self Confidence, Trustworthiness, Adaptability, Optimism, Organizational Awareness, Service Orientation, Influence, Teamwork and Collaboration are the Emotional Competencies that support a software project team. With regard to the second objective the present research findings have showed that consultants have emerged as the star performer of a software project team who has exhibited higher competencies and has demonstrated strengths than other members of the team in nine of the Emotional Competencies with two competencies from each of the four clusters viz., Accurate Self Assessment, Self Confidence (Self-Awareness domain),Trustworthiness, Adaptability(Self-Management domain), Optimism, and Organizational Awareness, Service Orientation (Social Awareness domain), Influence, Teamwork and Collaboration (Relationship Management domain). Hence, the hypothesis of the study which states that there exists difference in critical mass of competence and demonstration of strengths in at least one competence from each of the four clusters among the software project team members is confirmed.

The results of the study are being supported by another study on health professional's team which state that empathy, emotional self control, adaptability, trustworthiness, initiative and achievement orientation are the emotional competencies that influence job satisfaction. (Velayudhan \& Veeramani, 2009).
The results of the study with regard to the star performer on the competencies confirm the empirical findings of several researches on the respective competencies. For example, Boyatzis (1982) states that accurate self assessment is the hallmark of superior performance. Similar findings were reported by Kelley (1998) which states that Accurate Self-Assessment was the competence found in virtually every "star performer" in a study of several hundred knowledge workers-computer scientists, auditors. Similarly, the positive impact of the SelfConfidence competence on performance has been shown among supervisors, managers, and executives, a high degree of Self-Confidence distinguishes the best from the average performers (Boyatzis, 1982) which has been confirmed in the present research work. With regard to the competency of Trustworthiness, which translates into letting others know one's values and principles, intentions and feelings, and acting in ways that are consistent with them confirms the role of a consultant who are sought after as technical experts when the entire software project might get stuck because of certain shortcomings in certain core domains.
The results on the demonstration of strength in the Adaptability competency confirms the findings of Spencer and Spencer (1993) which states that Superior performers in management ranks exhibit Adaptability competence. Similarly, in the Optimism competency the observation of Schulman (1995) confirms the present finding which states that Optimism is a key ingredient of achievement because it can determine one's reaction to unfavorable events or circumstances; those with high achievement are proactive and persistent, have an optimistic attitude toward setbacks, and operate from hope of success which fit the present star performer viz., Consultant who is brought into a software project team at the time of crisis.
The exhibition of higher competencies and strengths in the Organizational Awareness competency by Consultant in the present study is in line with the findings of Boyatzis (1982) which states that Organizational Awareness competency is a competence vital to the behind-the-scenes networking and coalition building that allows individuals to wield influence, no matter what their professional role and outstanding performers in most organizations share this ability; among managers and executive generally, this emotional competence distinguishes star performers. Their ability to read situations objectively, without the distorting lens of their own biases and assumptions, allows them to respond effectively. The results on service orientation competency by the consultant is established by the findings of confirmed Spencer and Spencer (1993)which states that Service Orientation competency is an empathic strategy wherein the client's or customer's often unstated needs and concerns are identified and then matched to products or services which distinguishes star performers from average ones.
The demonstration of strengths in Influence competency by the Consultant who is the star performer of the study is confirmed with the findings of Spencer and Spencer (1993) which states that it is a hallmark of star performers, particularly among supervisors, managers, and executives who draw on a wider range of persuasion strategies than others do, including impression management, dramatic arguments or actions, and appeals to reason.
Finally the results of the star performer, the consultant, in the present study on the Collaboration and Teamwork competencies is supported by the Sweeny (1999) which states that Collaboration is particularly crucial to the success of strategic managerial ranks. Besides, Barsade and Gibson, 1999 report that positive emotions and harmony on a top-management team predict its effectiveness and the positive mood of a team leader at work promotes worker effectiveness and promotes retention which is much needed for a star performer.

## CONCLUSIONS

The present research work was undertaken to identify the Emotional Competencies in groupings, across clusters, that allow competencies to support one another in a software project team and to identify the star performer of a software project team who would exhibit higher competencies and demonstrate strengths than other members of the team in at least one competency from each of the four clusters. The results have identified Accurate Self Assessment, Self Confidence, Trustworthiness, Adaptability, Optimism, Organizational Awareness, Service Orientation, Influence, Teamwork and Collaboration are the Emotional Competencies that support a software project team. The research have also shown that the present research findings have showed that consultants have emerged as the star performer of a software project team who has exhibited higher competencies and has demonstrated strengths than other members of the team in nine of the Emotional Competencies with two competencies from each of the four clusters which has been found in tune with several research findings.

## REFERENCES

1. Amabile, T. (1988), "The intrinsic motivation principle of creativity. "Research in organizational behavior, Vol 10.
2. Barrick, M.R., Mount, M.K., and Strauss, J.P. (1993), "Conscientiousness and performance of sales representatives: Test of the mediating effects of goal setting." Journal of Applied Psychology, 78.
3. Barsade, S., Gibson, D., (1999), "Group emotion A view from top and bottom," Research on Managing Groups and Teams, Greenwich.
4. Boyatzis, R., (1982), "The competent manager: A model for effective performance." John Wiley and Sons.
5. Boyatzis, R., and Burrus, J.A., (1995): "The heart of human resource development", Counseling competencies, Unpublished manuscript.
6. Boyatzis, R., Goleman, D., and Rhee, K. (2000), "Clustering competence in emotional intelligence: Insights from the emotional competence inventory (ECI)", Handbook of emotional intelligence, Jossey-Bass.
7. Caruso, D. R., and P. Salovey(2004), "The Emotionally Intelligent Manager." John Wiley and Sons
8. Crant, J.M., (1995), The proactive personality scale and objective job performance among real estate agents, Journal of Applied Psychology, 80.
9. Goleman, D., (1998), "Working with emotional intelligence." Bantam Books.
10. Hay/McBer (2000). Research into teacher effectiveness: A model of teacher effectiveness report by Hay McBer to the Department for Education and Employment, viewed on 18 September 2009 http://www.dfee.gov.uk/teachingreforms/mcber/.
11. House, R.J., (1998),"Charismatic and non-charismatic leaders: Differences in behavior and effectiveness: The elusive factor in organizational effectiveness." Jossey-Bass.
12. McClelland, David C., (1998), "Identifying competencies with behavioral-event interviews." Psychological Science, Vol 9(5), pp 331-340.
13. Nygren, D.J., and Ukeritis, M.D. (1993),"The future of religious orders in the United States" Praeger.
14. Pilling, B.K., and Eroglu, S., (1994), "An empirical examination of the impact of salesperson empathy and professionalism and salability on retail buyers' evaluations." Journal of Personal Selling and Sales Management, Vol 8, Winter.
15. Rosier, R.H. (Ed.)., (1996), "The competency model handbook" Linkage.
16. Schulman, P., (1995), "Explanatory style and achievement in school and work." Lawrence Erlbaum.
17. Seligman, M. E. P., (1990), "Learned optimism." Knopf.
18. Serrat, O.,(2009),"Understanding and Developing Emotional Intelligence" Viewed on 10 September 2009, http://www.adb.org/documents/information/knowledge-solutions/
19. Spencer, L., and Spencer, S. (1993), "Competence at work." John Wiley.
20. Sweeney, P. (1999)., "Teaching new hires to feel at home." New York Times, February 14.
21. Totterdell, P., Kellett, S., Teuchmann, K., and Briner, R.R., (1998), "Evidence of mood linkage in work groups." Journal of Personality and Social Psychology, Vol 74(6), pp1504-1515.
22. Velayudhan . A., and Veeramani. T., (2009): "Personality,Affect and Job conditions as determining factors of job satisfaction : A study among Health Professionals", Unpublished Doctoral Disseratation, Bharathiar University, Coimbatore.

# IMPACT OF FLEXI-TIME (A WORK-LIFE BALANCE PRACTICE) ON EMPLOYEE PERFORMANCE IN INDIAN IT SECTOR 

DR. S. SUMAN BABU<br>ASST. PROFESSOR, HYDERABAD BUSINESS SCHOOL GITAM UNIVERSITY HYDERABAD<br>DR. U. DEVI PRASAD<br>ASSOCIATE PROFESSOR, HYDERABAD BUSINESS SCHOOL GITAM UNIVERSITY HYDERABAD FAKHRUDDIN SHEIK LECTURER, HYDERABAD BUSINESS SCHOOL GITAM UNIVERSITY, HYDERABAD<br>K. BHAVANA RAJ<br>SR. RESEARCH FELLOW, SCHOOL OF MANAGEMENT STUDIES<br>JNT UNIVERSITY<br>HYDERABAD


#### Abstract

This paper examines the impact of flexi-time on employee performance as part of a work-life balance practice based on empirical evidence drawn from IT Sector in Hyderabad, India. A total of 300 samples with 30 samples (Asst. Managers, Managers, and Sr. Managers) from each company had been included from the Ten IT companies based on simple random sampling. Managerial personnel from HR, Marketing, Finance, Operations and Technical functions are included in the study. The study shows that when the average flexi-time score increases, the average employee performance score also increases proportionately. The study reveals positive correlation and significant association between employee performance and flexi-time. The findings of the study shows that majority of the managerial personnel are able to increase their performance levels with the help of flexi-time as one the important work-life balance practice. The study concludes with a conceptual framework which explains how spillover theory helps in improving employee performance and also how management and co-worker support helps in smooth implementation of flexi-time in improving employee performance as a part in achieving work-life balance.


## KEYWORDS

Life, Performance, IT, flexi-time.

## INTRODUCTION

鲃alancing work and family issues have become increasingly important for both employees and employers, and are a universal worldwide phenomenon (Jarrod M. Haar, 2007).Work-life balance is one of the most difficult issues facing families in the twenty-first century (Elizabeth W., Calvin W., \& Janice R., 2008).
In the pursuit of reducing stress, improving performance, increasing productivity, reducing costs and enhancing profitability in the workplace, organizations have been evolving new ways and means to build psychological relationships with employees. Work-life balance (WLB) is a common challenge throughout the industrialized world. Employees all over the world are facing challenges how to balance work and personal life (Ramachandra Aryasri A. \& Suman Babu S., 2007).
In the era of globalization, the boundaries of world are disappearing especially with respect to work. The present global organization is working $24 * 7,365$ days a year and the growth of the economy is the present priority amidst global recession, which the world over is facing today. Everyone's focus is more on the work than the personal life which is creating an imbalance in the professional work and personal life. (Sindhu \& S.Suman Babu, 2008).

The term "work-life balance" was first coined over 20 years ago in reaction to the trend of the 1970s and 1980s when men and women began prioritizing work and career goals over family, friends, community affairs, and leisure activities. Today, this is the priority for all promising organizations (Farid A. Muna \& Ned Mansour, 2009).
Most cited work-family policies in work-family literature are on-site day care; help with day care costs, elder care assistance, information on community day care, paid parental leave, unpaid parental leave, maternity or paternity leave with reemployment, and flexible scheduling (Perry-Smith et al., 2000). Workplace flexibility is the ability of workers to make choices influencing when, where, and for how long they engage in work-related tasks" (Hill, et al., 2008).

## WORK-LIFE RESEARCH IN IT SECTOR IN INDIA

During the period 1995-2000 India saw the information technology enables services (ITES) e g, call centre and software sector boom. Many organizations in this sector adopted work styles and organizational practices from developed countries in the west. Workers were expected to work $24 / 7 \times 365$ days of the year. To prevent such a work style from affecting worker health and productivity, workplaces offered services traditionally associated with the family and non-work domain within their premises such as gymnasiums, day-care facilities, laundry facilities, canteen facilities, even futons to sleep on if you felt like a nap (Uma Devi, 2002). The IT sector was meant to have emancipatory potential for workingwomen on account of the possibility of telecommuting and working flexible hours. However in reality IT workplaces turned out to give very little room for family time and therefore did not live up to this promise. Also, since family friendly measures were offered more as an imitation of western organizational practices rather than from a genuine concern to enable (women) workers handle work and family responsibilities, they have suffered casualties during the recent recession in the IT sector (Winifred 2003).
The need to avoid stress and absenteeism associated with work and family demands among a newly downsized, highly pressurized core workforce as a result of massive downsizing and restructuring of organizations during 1990s has been recognized by some organizations as a compelling argument for continuing or developing family-oriented policies for this group particularly public sector(Lewis et al., 1996).
There is more innovation conceiving work-life balance policies and practices in IT and IT enabled services-be they multinational or Indian companies-because of the preponderance of gender balance and resultant increased awareness and concern about family responsibilities. Interestingly, as Wipro's website puts it, the emphasis is on "Work balance towards life" rather than "life balance towards work". (V.Chandra and C.S.Venkata Ratnam, 2009). In view of longer working hours and around the clock support, IT workers suffer more from work-life conflict than in most other cases. (C.S.Venkata Ratnam and V.Chandra, 2009)

## OUTCOMES OF WORK-LIFE BALANCE PRACTICES

Organizations have offered work-family benefits as a means to ameliorate the negative effects of stress and to increase work-family balance for employees. Work-family benefits are often referred to as organization interventions because they are designed to intervene and relieve the stress caused by work-family conflict.
Research on work and family has found that when work-family conflict has been reduced, positive attitudes and behaviors such as improved recruitment; increased retention, morale, and commitment; improved job performance and production; as well as lowered training costs, absenteeism, and tardiness result (Raabe, 1990). These outcomes are of interest to human resource managers and have a positive effect on organization's bottom line. This study evaluates employee perceptions of three important organizational concerns employee stress, employee retention, employee performance and organizational productivity.

## FLEXITIME, AN EMPLOYEE PERFORMANCE IMPROVER AND IT IS IMPORTANCE

Nowadays employers are in the habit of cutting costs. Flexi time is one such work-life balance practice that does not add any cost to the employers but moreover it adds many benefits to the bottom line like improved retention, increased performance apart from reduction of employee stress.

## RESEARCH PROBLEM

- The literature review reveals that there are very few studies in India which explore the impact of flexi-time on employee performance.
- After having extensive discussions with the research guide, academicians, key HRD people in IT industry, and colleagues, the research problem has been formulated keeping following questions in perspective:


## RESEARCH QUESTIONS

- Whether flexi-time as a work-life balance practice is being adopted by IT organizations in India and what are its possible outcomes?
- How Flexi-time help organizations in improving employee performance?
- How Management and Coworker Support helps in smooth implementation of Flexi-time in IT companies.


## OBJECTIVES OF THE STUDY

- To study existing work-life balance practices in select IT organizations in Hyderabad.
- To study and analyze the influence of flexi time on employee performance.
- To study how management and co-worker support helps in smooth implementation of flexi-time to improve employee performance.


## LITERATURE REVIEW

## RELATIONSHIP OF WLB PRACTICES TO EMPLOYEE PERFORMANCE

Dex and Smith (2002) explored the relationship between the adoption of family-friendly arrangements and improved organizational performance.
They found evidence of positive links between improved employee performance, cost effectiveness and the use of family-friendly policies in the workplace.
Issues associated with the contribution that work-life initiatives make to employee performance and organizational productivity have attracted the attention of employers as an increasing number of studies have found that organizations with progressive work-life programs have higher returns on assets and a positive impact on shareholder returns (Arthur \& Cook, 2004; Watson Wyatt Worldwide, 2002).
RESEARCH STUDIES ON MANAGEMENT \& CO-WORKER SUPPORT
The literature has suggested that the adoption of formal family-responsive policies may not have the desired effects if there is no supportive organizational culture (Kossek \& Nichol, 1992). Therefore, if lack of supervisor and organizational support is shown from the research findings, then companies considering family-responsive policies should take steps to promote a corporate culture that values or at least accepts the necessity and potential long-term benefits of the policies.

Organizational culture is often cited as the key facilitator or barrier to work-life policies (Thompson et al., 1999) with cultural norms often overriding formal policy intentions. According to the business case, a supportive culture (management and coworker support) can improve morale and motivation and reduce stress and absences.

## A) Management support

Based on a study of managers' and professionals' use of work-family policies specifically, Blair-Loy and Wharton (2002) also argue that employees were more likely to use these policies if they worked with powerful supervisors and colleagues who could buffer them from perceived negative effects on their careers.

## B) Co-worker Support

Another factor which may contribute to an understanding of why many employees are reluctant to take up work-family provisions is lack of coworker support. Also referred to as the "backlash" movement (Haar and Spell, 2003), there is some evidence, based on theories of organizational justice (Hegtvedt et al., 2002) that resentment by some employees may contribute to a work environment where the utilization of work-life policies is not encouraged.

## THEORETICAL PERSPECTIVE/CONCEPTUAL FRAMEWORK FOR THE PRESENT STUDY

The theoretical underpinning for this present research study was also built on the concept of spillover theory (FIGURE A--Conceptual Model on Flexitime as a WLB practice and employee stress reduction outcome); Spillover theory can help explain the reciprocal relationship between work and family by accounting for both the positive and negative influence of multiple roles (Leiter \& Durup, 1996). Spillover refers to the experiences (attitude, behavior, environment, demands, emotions, responsibilities, resources) of one role "spilling over" or affecting the other role. Spillover can simultaneously involve the experience of both stress and support. When an individual's experienced stress accumulates in one domain and cannot be contained within that domain due to lack of resources, the stress spills over into the other domain and is expressed there as well. For example, spillover from work to family occurs when an employee experiences a difficult, stressful day at the office and comes home to the family, yelling at one's spouse and children. Stress experienced at the office is then experienced at the home.

## HYPOTHESIS

After conducting an extensive review of literature, the following hypothesis predominantly in the alternate form is developed in line with the research problem and objectives.
$H_{a}$ : There is significant impact of flexitime on employee performance.

## METHODOLOGY AND SAMPLING DESIGN

The primary data was collected from April'2010 to Sept'2010.The study is based on both the primary data and secondary data. Secondary data was collected from various research journals, books, magazines, websites related to the field of the study. Primary data was collected by administering a structured questionnaire to the junior level \& middle level managers of the sample companies. A 1-5 point Likert Scale from strongly disagree to strongly agree has been used to measure the statements in the questionnaire. The measures were adapted and Cronbach's coefficient of reliability was computed for all dimensions to verify the internal consistency of the items (Flexitime and employee performance) that constitute the dimensions. For flexi time and employee performance scale, the number of items is 8 and the Cronbach alpha value is 0.947

## SAMPLING TECHNIQUES AND SAMPLE SIZE DESCRIPTION

Firm size affects the type and extent of work-life balance policies that are offered. In their study of US firms, Galinsky and Bond (1998) found that company size was the next best predictor of the presence of work-life balance policies, after industry type. Larger companies (more than 1,000 employees) were more likely to provide flexible work options and longer and paid parental leave.
Ten IT companies are selected on the basis of non-probability sampling which is non-random in nature. A total of 300 samples with 30 samples (Asst.Managers, Managers, and Sr. Managers) from each company had been included from the 10 companies based on simple random sampling. The sizes of each of the junior level and middle level management depends on the population of respective cadre of managers. Managerial personnel from HR, Marketing, Finance, Operations and Technical functions are included in the study. All these companies have more than 1000 employees each.
Males constitute 218 members ( $72.7 \%$ ) and Females constitute 82 members ( $27.3 \%$ ). They belong to age group between 25 yrs to above 45 yrs. The highest percentage of participants is between $35 y r s-45 y r s(45.7 \%)$. 280 participants i.e., ( $93.3 \%$ ) are married and 20 participants ( $6.7 \%$ ) are unmarried. Truly this is a representative of the work-life problems faced by married managerial personnel. 280 participants i.e., ( $93.3 \%$ ) said they have children and 290 participants ( $96.7 \%$ ) said they have elderly persons in their families whom they need to look after. 210 participants ( $73.3 \%$ ) said they work more than 8 hrs and nearly 100 participants ( $33.3 \%$ ) said they work night shifts ( $8 \mathrm{pm}-4 \mathrm{am}$ ) and another important observation is that 244 participants ( $81.3 \%$ ) said they have working spouses. All these combinations will help to further study and evaluate work-life balance practices on organizational outcomes. The following tables will explain the demographic characteristics of the respondents

## STATISTICAL ANALYSIS AND RESULTS

The data is analyzed by using SPSS (Statistical Package for services and solutions) 17.0 version
When asked how important you think the following work-life balance practices?
For flexi time :The data collected out of 300 Managerial personnel $25.3 \%-34.7 \%$ felt extremely important to important.11.7\% respondents felt neutral and $14.3 \%-14.0 \%$ felt somewhat important to not at all important.
When asked "I would be motivated to higher levels of work performance if flexi-time were offered". 91 (41.7\%) male managerial personnel had responded "agree or strongly agree" whereas 42 ( $51.2 \%$ ) female managerial personnel had responded "agree or strongly agree" and from the overall sample $133(44.3 \%)$ male and female managerial personnel together had responded "agree or strongly agree". This implies that females' perception towards impact of flexitime on employee performance is more when compared to males.

Table 1: Mean and Standard Deviation Scores of 'Overall Sample’
Descriptive Statistics

|  | Mean | Std. Deviation | N |
| :--- | :--- | :--- | :--- |
| Employee Performance | 3.11 | 1.414 | 300 |
| Flexitime | 3.47 | 1.357 | 300 |

Table 1 gives the mean and standard deviation scores for the overall sample of 300 managerial personnel (which includes Assistant Managers, Managers and Senior Managers). It is interesting to observe that the averages of these domains are almost the same with lesser variation on Employee Performance. For Flexitime, the corresponding range is 1 to 5 .
In order to measure the extent of linear relationship between the average Flexitime scores and the average Employee Performance scores, Karl Pearson coefficient of correlation is computed; and is tested for significance. Table 2 reveals that there is a positive correlation between Employee Performance and Flexitime ( $\mathrm{r}=0.589, \mathrm{p}=0.000$ ), and is found to be statistically highly significant. For future research, it may be suggested that Flexitime can be used to estimate Employee Performance. Since managerial personnel from all cadres for the purpose of worklife balance practices study are included, it reflects the importance of Flexitime to measure Employee Performance.

Table 2: Correlation between Employee Performance and Flexitime
Correlations

|  |  | Employee Performance | Flexitime |
| :---: | :---: | :---: | :---: |
| Employee Performance | Pearson Correlation | 1 | .589** |
|  | Sig. (2-tailed) |  | . 000 |
|  | N | 300 | 300 |
| Flexitime | Pearson Correlation | .589** | 1 |
|  | Sig. (2-tailed) | . 000 |  |
|  | N | 300 | 300 |

**. Correlation is significant at the 0.01 level (2-tailed).
The coefficient of determination $\mathrm{R}^{2}=0.347, \mathrm{p}=0.000$ highlights that Flexitime contributes on Employee Performance to a moderate extent (Table 3). Thus, Employee Performance can be estimated from Flexitime scores.

Table 3: Coefficient of determination between Employee Performance and Flexitime of 'Overall Sample' Model Summary

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | R Square Change | F Change | df1 | df2 | Sig. F Change |
| 1 | . $589{ }^{\text {a }}$ | . 347 | 345 | 1.145 | . 347 | 158.439 | 1 | 298 | . 000 |

> a. Predictors: (Constant), Flexitime

The analysis of variance table (ANOVA) given in Table 4 reveals that the regression model fits well for the data ( $\mathrm{F}=158.439, \mathrm{p}=0.000$ ). Table 4: ANOVA for 'Overall Sample’
ANOVA ${ }^{\text {b }}$

| Model | Sum of Squares | Df | Mean Square | F | Sig. |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1 Regression | 207.629 | 1 | 207.629 | 158.439 | $.000^{\text {a }}$ |
| Residual | 390.518 | 298 | 1.310 |  |  |
| Total | 598.147 | 299 |  |  |  |

a. Predictors: (Constant), Flexitime
b. Dependent Variable: Employee Performance

The regression coefficient and its associated test of significance are given in Table 5. The fitted regression model is as follows: Employee Performance $=0.614$ Flexitime +0.985
From the above regression line, the average score on Employee Performance can be estimated for a given average score on Flexitime. Further, the population regression coefficient is different from zero as $t=12.587, p=0.000$. It explains that when the average Flexitime score increases, the average Employee Performance score also increases proportionately.

Table 5: Regression Coefficient and its Associated Test of Significance for 'Overall Sample’ Coefficients ${ }^{\text {a }}$

| Model | Unstandardized Coefficients |  | Standardized Coefficients | t | Sig. |
| :--- | :--- | :--- | :--- | :--- | :--- |
|  | B | Std. Error | Beta |  |  |
| 1 (Constant) | .985 | .182 |  | 5.423 | .000 |
| Flexitime | .614 | .049 | .589 | 12.587 | .000 |

a. Dependent Variable: Employee Performance

Hence, the study hypothesis "There is significant impact of flexi-time on employee performance" is accepted

## MANAGERIAL IMPLICATIONS OF THE STUDY

The findings of the study reveals that work-life balance is becoming a burning issue in IT sector in India. To facilitate employees, organizations are practicing work-life balance strategies like flexi time to their employees so that they can balance their work and life domains. Most of the western organizations are providing work-life balance practices like flexi time to its employees and are competing with the global organizations. Indian organizations should match with global approach in providing work-life balance practices to its employees.
The literature review revealed that there are only few studies in India in evaluating flexi time as a work-life balance practices based on employee performance. Either the study has been conducted by taking one practice or in single country.
Hence the researcher found that the existing literature was short of empirical studies in the area of evaluating flexi time as a work-life balance practice based on employee performance in India, thereby providing the impetus for this study. This research work, which is conceptual and empirical in nature, has taken a step, and a significant one in the Indian context to fill the void.
This study has been a modest attempt to evaluate flexi time as a work-life balance practice based on employee performance. The results of this study conclude that there is significant impact of flexi time on employee performance

## LIMITATIONS AND FUTURE SUGGESTIONS

a) The study has been conducted in Hyderabad region, so the restricted geographical region is a limitation for this study.
b) Only ten IT organizations from the IT sector are covered under this study and the results of the study cannot be generalized.
c) Inclusion of very few female managerial personnel in the study.
d) Only one work-life balance practice (flexi time) is evaluated based on employee performance.

This research work has been undertaken in Hyderabad region of Andhra Pradesh in India in ten organizations from the IT sector. The future research can be in areas of evaluation of work-life balance practices such as flexi time based on employee performance in other regions of India and in other sectors to compare the results to arrive at more generalized conclusions. Future research can also focus on the impact of other work-life balance practices on organizational outcomes. This research work has been carried out by taking managerial personnel as a sample, whereas future research can be focused by taking different samples like employees belonging to different levels and comparing between the levels.

## CONCLUSION

To conclude how provision of work-life balance practices like flexi time may benefit organizations by improving employee performance rate where employees can perform to the best of their potential and also help policy makers to frame welfare measures to employees. Organizations should integrate flexi time as a work-life balance practice in core business objectives and also should use as a strategic tool for improving employee performance.
For effective implementation of flexi time as a work-life balance practice there should be both management and co-worker support and also organizations should observe the moods, attitudes, behavior and environment of its employees because spillover of these will have both positive and negative outcomes with reference to employee performance. Organizations should also consider other practices which will increase employee performance
During this economic downturn or global recession organizations should adopt flexi time as a employee performance improver tool because it does not add any cost to the organizations and moreover it adds many organizational benefits to the bottom line like increased satisfaction and productivity, retention of valuable employees ,reduced stress and decreased absenteeism apart from improving employee performance.
The above article can be summed up in Fig. A (Conceptual Framework of Flexitime as a Work-Life Balance Practice and reduced employee performance outcome).

FIG. A: Conceptual Framework of Flexi-time as a Work-Life Balance Practice and improved employee performance outcome


Fig A Conceptual Model of Work-Life Balance Practices and improved employee performance outcome

Note: $\longrightarrow$ Direct Linkages
$4 \rightarrow$ Interactional Impacts

## REFERENCES

1. Jarrod M. Haar (2007). "Exploring the benefits and use of flexitime: similarities and differences", Qualitative Research in Accounting \& Management, 4 (1), 69-82.
2. Elizabeth W., Calvin W., \& Janice R (2008)."Women and work-life balance: is home-based business ownership the solution?", Equal Opportunities International, 27 (3), 258-275.
3. Ramachandra Aryasri, A., \& Suman Babu, S. (2007). Work-Life Balance- A holistic Approach.Siddhant-A Journal of Decision Making, 7 (1), 111.
4. Sindhu \& Suman Babu, S. (2008). Achieving Work-Life Balance-Women Perspective. Indian Journal of Training and Development, 38(1), 7986.
5. Farid A. Muna \& Ned Mansour, (2009). Balancing work and personal life: the leader as acrobat. Journal of Management Development, 28(2), 121-133.
6. Perry-Smith, J. E. \& Blum, T. C. (2000). RESEARCH NOTES - Work-Family Human Resource Bundles and Perceived Organizational Performance. Academy of Management Journal, 43(6), 11.
7. Hill, E.J., Grzywacz, J.G., Allen, S., Blanchard, V.L., Matz-Costa, C., Shulkin, S., \& Pitt-Catsouphes, M. (2008). Defining and conceptualizing workplace flexibility. Community, Work, and Family, 11, 149-163.
8. Uma Devi, S. (2002). Globalization, Information Technology and Asian Indian Women in US", Economic and Political Weekly, available on line at http://www.epw.org.in.
9. Winifred, R. P. (2003). Organizational Change, Globalization, and Work- Family Programmes: Case Studies from India and the United States. Chapter submitted to Work-Family Interface in International Perspective, LEA Press.
10. Venkata Ratnam, C.S., \& Chandra, V. (2009). Work-Life Balance: Review of Literature. NHRD Network Journal, 2(3), 89-97.
11. Lewis, S., Watts, A., \& Camp, C. (1996). Midland Bank's experience, In S. Lewis and J. Lewis (Eds.) The Work-Family Challenge. Rethinking Employment. London: Sage.
12. Raabe, P.H. (1990), "The organizational effects of workplace family policies", Journal of Family Issues, 11, 477-486.
13. Dex, S., Smith, C., The Nature and Pattern of Family-Friendly Employment in Britain, The Policy Press/Joseph Rowntree Foundation, 2002, Bristol
14. Arthur, M. \& Cook, A. (2004), "Taking stock of work-family initiatives: How announcements of "family friendly" human resource decisions affect shareholder value", Industrial Relations Review, 57 (4), 599-613.
15. Watson Wyatt Worldwide., "Human Capital Index: Human capital as a leader of shareholder value, 2001/2002 Survey Report", 2002, Watson Wyatt Worldwide: Washington. DC. www.watsonwyatt.com
16. Kossek, E. E., \& Nichol, V. (1992). The effects of an on-site childcare on employee attitudes and performance. Personnel Psychology, 45, 485-509.
17. Blair-Loy, M., \& Wharton, A. (2002). Employee's use of work-family policies and workplace social context. Social Forces, 80, 813-845.
18. Thompson, C.A., Beauvais, L.L. \& Lyness, K.S. (1999). When work-family benefits are not enough: The influence of work-family culture on benefit utilization, organizational attachment, and work-family conflict. Journal of Vocational Behavior, 54, 392-415.
19. Haar, J., \& Spell, C.S. (2003). Where is the justice? Examining work-family backlash in New Zealand: the potential for employee resentment. New Zealand Journal of Industrial Relations, 28 (1), 59-75.
20. Hegtvedt, K.A., Clay-Warner, J., \& Ferrigno, E.D. (2002). Reactions to injustice: factors affecting workers' resentment toward family-friendly policies. Social Psychology Quarterly, 65(4), 386-401.
21. Leiter, M.P., \& Durup, M.J. (1996). Work, home, and in-between: A longitudinal study of spillover. Journal of Applied Behavioral Science, 32, 29-47.
22. Galinsky, Ellen \& Bond, James T. (1998). The 1998 Business Work-Life Study: A Sourcebook - Executive Summary. New York: Families and Work Institute, http://familiesandwork.org/summary/worklife.pdf

# TRIPS, TECHNOLOGY AND EXPORTS: EVIDENCE FROM THE INDIAN PHARMACEUTICAL INDUSTRY 

MADHUR MOHIT MAHAJAN ASST. PROFESSOR DEPARTMENT OF ECONOMICS<br>G. G. D. S. D. COLLEGE<br>CHANDIGARH U.T.


#### Abstract

This is an empirical and historical study of the co-evolution of policy, technology and exports in the Indian pharmaceutical industry. The study considers the causes and implications of reforms and changes in the policy framework in the Indian pharmaceutical industry, particularly capacity and capability development for research and innovation and their consequent impact on exports under different patent regimes. The paper studies the R\&D behavior and export performance of 20 major Indian pharmaceutical firms during 1996-2008. In our research while scrutinizing the impact of WTO on the exports the correlation of exports with the R\&D intensity of Indian firms was well established and the degree of dependence and explanation of variables was done with the help of bivariate correlation matrix and stepwise regression technique while taking Exports as dependent variable and Investment, Profits and R\&D as independent variables. The rise in the Drug Master Files (DMF) with US FDA also reflect the export vigorisity and R\&D capability of Indian Pharma in USA market. A trend analysis of rising DMF Numbers has been prepared to justify the trend and direction of Indian Exports in the US market. This paper sheds light on the strong inter-linkage between technological changes and exports of Indian Pharmaceutical Sector. The results indicate that the Indian Pharmaceutical firms adept at reverseengineering of brand name drugs have an opportunity to enter the global generic market for off-patent drugs.


## KEYWORDS

Exports, Innovation, New Chemical Entities, TRIPS.

## INTRODUCTION

$\mathfrak{T}$here is widespread agreement on the importance of technological progress for economic growth (1). Technological change increases the productivity of land, labour and capital, reducing costs of production and improving the quality of outputs. The ability to be internationally competitive also depends on having up-to date technology. In open economies this is not only necessary for export development but is also vital for domestic production which serves local markets (UNCTAD 2007). The value of goods and services that countries trade increasingly resides in their intellectual content, technology, Research and Development (R\&D) and human creativity that is sought to be protected by intellectual property rights (IPRs) (Chaddha 2005).
Thus under the new international order advocated by World Trade Organization (WTO) IPRs are fast emerging as "global currency for power". For the first time in international law the agreement on Trade Related Aspect of Intellectual Property Rights (TRIPS) sets out procedures that governments must provide under their domestic law so that IPRs can be effectively enforced. Particularly for Pharmaceuticals, TRIPS require that developing countries should provide for product and process patents with a patent term of 20 years w.e.f. January 1 , 2005 (Chaddha 2005).

Ever since India gained its independence in 1947, the Indian government has taken many initiatives to encourage public, private as well as foreign investments in pharmaceutical Research and Development with an ultimate aim to make drugs available to the masses at affordable prices (Chataway and Chaturvedi 2006). The decade of the 1970 s has been of great importance to the IPR, which witnessed a "process revolution" through concerted effort at acquisition of technological capability fostered by a favourable policy environment, especially a weak patent regime. Through the decades of 1970 s and 1980 s, the IPR reached new heights of process capabilities to "knock off" any new drug with a non-infringing process and market them at low prices (Ray 2008).
This allowed the domestic industry build up considerable competencies and offer a large number of cheaper "copycat" generic versions legally in India at a fraction of the cost of the drug in the West, as long as they employed a production process that differed from that used by the patent owner (Green 2007).
In fact, India was a leading bulk drug exporter in the international market in the late eighties but lost that position to china as it started undercutting India's prices and entering the world market. Now after a dull phase, Indian Pharmaceutical firms are reviving as quality exporters of bulk drugs (2) and formulations (3). It is because of Indian firms increasing its Research and Development efforts and adopting international standards in drug manufacturing. Exports of pharmaceuticals have consistently outstripped imports (Economic Survey 2009-10). The top five destinations of Indian pharmaceutical products are the USA, Germany, Russia, the UK and China. Using empirical evidence from firm level investigations, this paper shows how Indian firms have evolved from reverse engineering outfits operating under the process patent regime to technologically advanced and sophisticated organizations capable of catering to diverse international markets in the product patent regime.

## PREVIOUS STUDIES AND THE NEED OF THE PRESENT STUDY

A number of studies have been done so far to study the penetration of domestic firms in the foreign markets. Sterlacchini (1999) studied the innovative activities of small firms in Italy and found that activities such as design, engineering and pre production developments were important in positively influencing exports. Chaudhary (2005) has found that the tendency of Indian firms have been to move up the value chain and target higher value added market segments through innovation and investments. Chadha (2005) reveals that innovative environment is likely to encourage exports. Greene (2007) while studying the impact of Indian pharma on US markets verified that Indian companies have made tremendous strides in the U.S. market and companies like Ranbaxy are major sources of generic drugs. The Indian companies also enjoy comparative advantages in cost, strength in reverse engineering skills, and number of U.S. FDA approved plants located in India. Ray (2008)
while studying the learning and innovation of Indian Pharmaceutical Industry to meet the global expectations maintained that although India has reached impressive heights of technological maturity in pharmaceuticals, but it is yet to arrive at the global frontiers of cutting edge drug discovery research. This can only be achieved through sustained technological effort and continued R\&D. However all these studies either cater to pre liberalisation phase or do not capture the TRIPS regime and export behaviour of Indian firms in the competitive era unleashed by foreign firms in the new product patent regime.

## OBJECTIVES AND HYPOTHESIS OF THE STUDY

The paper aims to find out the increase in export intensity of Indian Pharmaceutical firms and the causes explaining such increase.

## HYPOTHESIS

$H_{1}$ The exports of Indian Pharma as a Percentage to Net Sales have increased for the period 1996-2008.
Thereafter the study scrutinizes the stimulators of Exports viz. R\&D, Profits and Investments and investigates the impact of such stimulators on exports through causal analysis. Thus the following set of hypothesis can be drawn:
$\mathrm{H}_{2}$ Increase in R\&D positively and significantly affects exports of Indian Pharma.
$\mathrm{H}_{3}$ Increase in Profits positively and significantly affects exports of Indian Pharma.
$\mathrm{H}_{4}$ Increase in Investment positively and significantly affects exports of Indian Pharma.
$\mathrm{H}_{5}$ Increase in Profits positively and significantly affects exports of Indian Pharma.
Finally the paper examines the impact of rising Drug Master files on Indian Pharma Exports. The hypothesis drawn from this objective is: $\mathrm{H}_{6}$ Increase in DMFs positively affects exports of Indian Pharma.

## METHODOLOGY

The study has been made by analyzing the economic behavior of 20 major pharmaceutical Companies comprising around $50 \%$ of Indian pharmaceutical market during 1996 to 2008. The paper also encapsulates the export performance of Indian Pharma in the pre TRIPS period. The companies included in the study are Cipla, Ranbaxy, Glenmark, Dr. Reddy's, Lupin, Piramal Healthcare, Wokhardt, Aurobindo, Torrent, Indswift, Orchid, Alembic, IPCA, Unichem, Glenmark, JB Chemicals, Medicaps, Divi, Zandu and Cadila Healthcare. In our research while scrutinizing the impact of WTO on the exports, the correlation of exports with the R\&D, Investment and Profit intensity of Indian firms was made and the degree of dependence and explanation of variables was done with the help of Step wise Regression technique. Since USA is the largest export destination for Indian Pharmaceuticals and constitutes around $1 / 4^{\text {th }}$ of total pharmaceutical exports, we have studied the rise in the Drug Master Files (DMF) with US FDA that reflect the R\&D capability and bulk drug export vigorisity of Indian Pharma. A trend analysis of rising DMFs has been prepared to justify the trend and direction of Indian bulk drug exports in the US market.
Changes at the micro level are supplemented by macro analysis. Existing literature has been used to analyse the causes and effects of the legal and policy changes of last four decades on the growth and evolution of this industry. Literature and data has been sourced from Centre for monitoring Indian Economy (CMIE) Prowess database, the Annual Reports of the various pharmaceutical companies and their websites, the Ministry of Commerce and Industry, and reports/papers published by Individual organizations and authors. In addition, industry journals, trade journals, and industry associations' publications are also referred to.

## THE PATENTS ACT, 1970

The origins of the pharmaceutical industry in India can be traced back to the colonial (pre-independence) era (4). But right from its origin through the decades of the 1950s and 1960s, the industry remained largely dominated by foreign firms and drug prices were among the highest in the world. Approximately 99 percent of all pharmaceutical products under patent in India at the time were held by foreign companies (Green 2007). Further, India was dependent on imports for many of the essential bulk drugs. The import dependence constricted consumption in a country deficient in foreign exchange and inhibited the growth of the industry.
In the 1970s, India introduced complex laws and policies to regulate the pharmaceutical industry, to counteract monopoly abuses by multinationals and to promote local industry. The reforms included changes to foreign exchange regulations, price controls, industrial licensing and, most important of all, the non-recognition of pharmaceutical product patents. The Patents Act, 1970, which came into effect in 1972, represented a significant change in the legal and technological regime and had an enormous impact on the technological evolution of the pharmaceutical industry in India. It started the era of reverse engineering, where firms developed new products by simply changing a few steps in their production processes (Chataway and Chaturvedi).
Following were the main features of Patent Act, 1970.
> The Drugs (and food and those manufactured by chemical processes) could be patented only for a new method or process of manufacture, not for the products as such (5).
> The protection for the processes of manufacturing the drug would be for seven years from the date of filing the application or five years from the date of the grant of The Patents (Lalitha 2002).
$>$ Patentee can import the patented drug and has no obligation to produce it locally (Exim Bank Study 2007).
$>\quad$ In case of process patent the burden of proof lies with alleged infringer.
The result was that the MNCs lost their market domination. From around 60 per cent market share in the late 1970s, their share declined to 40 per cent by the early 1990s (Table 1).

TABLE 1: MARKET SHARE OF INDIAN AND FOREIGN COMPANIES IN PHARMACEUTICAL INDUSTRY OF INDIA

| Year | MNCs (\%) | Indian Companies (\%) |
| :--- | :--- | :--- |
| 1952 | 38 | 62 |
| 1970 | 68 | 32 |
| 1978 | 60 | 40 |
| 1980 | 50 | 50 |


| 1991 | 40 | 60 |
| :--- | :--- | :--- |

Source: Sudip Chaudhary, The WTO and the Indian Pharmaceutical Industry, OUP, 2005
The older firms such as Ranbaxy and Cipla saw dramatic growth essentially after the revision of the Patents Act. Their ranks in the domestic retail market were respectively $43^{\text {rd }}$ and $56^{\text {th }}$ in 1971, way behind the MNCs such as Glaxo, Pfizer, Hoechst, Lederle, Ciba, May \& Baker, Abbott, Sandoz, Boots, Smith Kline and French which dominated the industry those days. Today Ranbaxy is the largest company and Dr. Reddy's is the 2nd largest company in the domestic market, and only one MNC (Glaxo Smith Kline) has sales comparable to them (6).
The favourable environment also attracted the entry of a number of new firms. Among the top companies, Sun Pharmaceuticals, for example, was set up in 1983 and Dr. Reddy's Laboratories in 1984. A large number of specialized bulk drugs manufacturers, set up since the 1970sparticularly in the 1980s-contributed immensely to the transformation of the Indian Pharmaceutical Industry. The more prominent among them are Shasun (set up in 1976), Morepen Laboratories (1984), Aurobindo (1986), Neuland Laboratories (1986), Divi's Laboratories (1990), Orchid Chemicals and Pharmaceuticals (1992), and Hetero (1993) (7).
From over 2200 units in 1969-70, the size of Indian pharmaceutical industry increased to nearly 24000 in 1995-96. Many of them were smallscale units and were receiving number of incentives from the Government, including reservation of drugs for exclusive production. Many of them have commenced their operations specializing in generics production (Chaudhary 2005).
Exports also started increasing steadily. From a meager \$54.3 million in 1974-5, exports of drugs and pharmaceuticals increased to \$536.6 million in 1990-91 and to 694.0 million in 1994-95. Till 1987-8, imports were larger than exports except for a few years. But with the steady growth in domestic production and exports, the country has become a net exporter since 1988-9 (Table 2).

TABLE 2: EXPORTS OF INDIAN PHARMACEUTICAL INDUSTRY

| Year | Exports | Imports | Trade Balance | Trade Balance as a \% of Exports |
| :--- | :--- | :--- | :--- | :--- |
| $1973-74$ | 47.9 | 43.8 | 4.1 | 8.5 |
| $1974-75$ | 54.3 | 59.1 | -4.7 | -8.7 |
| $1980-81$ | 96.3 | 142.6 | -46.3 | -48.1 |
| $1988-89$ | 322.9 | 308.6 | 14.3 | 4.4 |
| $1990-91$ | 536.6 | 336.6 | 200 | 37.3 |
| $1991-92$ | 613.7 | 329.9 | 283.8 | 46.2 |
| $1992-93$ | 486.2 | 371.1 | 115.1 | 23.7 |
| $1993-94$ | 567.9 | 459.1 | 108.8 | 19.2 |
| $1994-95$ | 694 | 486.3 | 207.7 | 29.9 |

Source: Sudip Chaudhary, The WTO and the Indian Pharmaceutical Industry, OUP, 2005

## TRIPS AGREEMENT AND PATENT (AMENDMENT) ACT, 2005

The year 1995 recorded another milestone for the Indian pharmaceutical sector. The WTO came into effect in 1995. One of the agreements negotiated under WTO was for the Trade Related aspects of Intellectual Property Rights TRIPS. Since India is a founder member of WTO, India automatically became a signatory of the TRIPS agreement.
TRIPS provides a three-stage frame for countries such as India which did not grant Product Patent rights in pharmaceuticals when TRIPS came into force on 1 January 1995;
i. Introduction of a facility ('mail box') from 1 January 1995 to receive and hold product patent applications in the fields of pharmaceuticals (and agricultural chemicals). Such applications will not be processed for the grant of a patent until the end of 2004 But Exclusive marketing Rights (EMRs) can be obtained for that application if a patent has been granted in some other WTO member country and the application has not been rejected in the country as not being an invention (8).
ii. Compliance, from 1 January 2000, with other obligations of TRIPS, namely, those related to the rights of The Patentsee, term of patent protection, compulsory licensing, reversal of burden of proof and so on.
iii. Introduction of full product patent protection in all fields including pharmaceuticals from 1 January 2005. All the product patent applications held in the mail box are also required to be taken up for examination from 1 January 2005.
Compliance with the TRIPS requirements has taken substantial time in India. This reflects the significant opposition to TRIPS in India. An Ordinance was actually introduced on 31 December 1994 to implement these provisions. But the ordinance lapsed because it could not be followed up with the necessary legislation within the stipulated six weeks time required. The panel set up by the Dispute Settlement Body (DSB) of the WTO asked India to comply with the requirements by April 1999. Again a Bill was introduced and this time it was passed in the Rajya Sabha on 22 December 1998, but the Bill could not come up for consideration in the Lok Sabha.
Ultimately an Ordinance was promulgated followed by an Act passed in March 1999. The Patents (Amendment) Act, 1999 amended the Patents Act, 1970 with retrospective effect from 1 January, 1995 to implement mail box facilities and EMRs as mentioned in (i) above. Another Bill was introduced in the Rajya Sabha in December 1999 to bring about the other changes in The Patents regime as mentioned in (ii) above. The Bill with a few changes was approved by the Parliament in May 2002. the Patents (Amendment) Act, 2002 came into force on 20 May 2003.The Patents (Amendment) Act, 2002 made 64 amendments to the Patents Act, 1970 relating to terms of patents ( 20 years), exceptions to exclusive rights, compulsory licensing, and so on.
A third Amendment was necessary by the end of 2004 to replace the EMR system and to introduce product patent protection as mentioned in (iii) above. The Patents (Amendment) Bill, 2003 was introduced in the Parliament in December 2003. Before this Bill could be passed, Lok Sabha was dissolved. A full-fledged product patent regime has been introduced in India from 1 January 2005 through a presidential decree The Patents (Amendment) Ordinance 2004 which was issued issued on 26 December 2004. The provisions of the Ordinance were essentially the same as those of the Bill of 2003. As required under the law, the Ordinance was followed up with the necessary legislation and the Patents (Amendment) Act, 2005 was passed by the parliament in March 2005 and received the assent of the President on 4th April, 2005.
To meet its TRIPS obligations, India amended its patent law on March 22, 2005, abolishing its "process" patents law and reintroduced Western style "product" patents for pharmaceuticals, food, and chemicals. This action effectively ended 36 years of protection for Indian pharmaceutical companies and stipulated that Indian companies selling copycat drugs must pay foreign patent holders a "reasonable" royalty for copies sold in the Indian market. The amendment made reverse engineering or copying of patented drugs illegal after January 1, 1995. The Act allowed for
only two types of generic drugs in the Indian market: off-patent generic drugs and generic versions of drugs patented before 1995. The Amendment grants new patent holders a 20-year monopoly starting on the date The Patents was filed and, without a compulsory license, no generic copies can be sold during the duration of The Patents (Green 2007). The WTO also required India to establish a "mailbox" where patent applications could be filed between 1 January, 1995 and 2005.
The Act encouraged significant numbers of foreign pharmaceutical companies to participate in the Indian market and, in 2005 foreign drug producers filed approximately 8,926 patent applications to cover their patented drugs sold as generics in the Indian market. On the contrary The Patents Act of 1970 had discouraged The Patents Activity in the country. The number of patents granted per year fell by three-quarters over the following decade, from 3,923 in 1970-71 (of which 629 were to Indian applicants, 3,294 to foreign applicants) down to 1,019 in 198081 (349 Indian, 670 foreign) (Lanjouw 1997).

## INCREASE IN EXPORT INTENSITY

To know the increase in Export intensity we have measured data from 1996 to 2008 in terms of R\&D as a percentage of net sales. Chaudhary (2005) and Kale (2006) have made similar efforts for the period before 2002.The twenty companies listed in table 5.1 earned export revenue worth Rs. 908.5 crore 1996 and Rs. 15548 crore in 2007-08 and aggregate amount of Rs. 77440.98 crore for the twelve year period between 1996-2008. The Exports as a percentage of Net Sales were $28.5 \%$ for the twenty companies in the year 1996 and rose to nearly $46 \%$ in 2005 and fell down slightly to $41.08 \%$ in the year 2008. The overall trend shows the increase in export intensity of Indian Pharmaceutical Industry. Hence $\mathrm{H}_{1}$ is proved.

| TABLE 3: EXPORTS AS A PERCENTAGE TO NET SALES (VALUE IN CRORE) |
| :--- |
| Year Exports Net Sales Exports as a Percentage to Net Sales <br> 1996 908.5 3191 28.5 <br> 1997 1265 4584.74 27.59 <br> 1998 1451 5371.9 27.01 <br> 1999 2007 5951 33.73 <br> 2000 2538 7811 32.49 <br> 2001 3397.7 9649 35.21 <br> 2002 4722 12111 38.99 <br> 2003 6209 14597 42.54 <br> 2004 7833 17393 45.04 <br> 2005 8190 17969 45.57 <br> 2006 9660 22095 43.72 <br> 2007 13711 33082 41.45 <br> 2008 15548 37846 41.08 |

## HIGHER R\&D INTENSITY LEADS TO HIGHER EXPORTS

Strong process R\&D and low manufacturing cost helped the Indian companies to further penetrate into the export markets. Between 2001 and 2005, Formulation Exports from India posted a compounded annual growth rate of 20\% (EXIM bank Study 2007). An increase in a pharmaceutical firm's innovative activities enhances its export competitiveness. This means that the more a firm invests in R\&D, the more likely it is to increase its exports revenue. The table 4 reveals a high degree of correlation between Exports and R\&D. The table 5 depicts the impact of R\&D on export through Regression analysis while taking exports as dependent variable and R\&D, Profit and Investment as independent variables.

|  |  | Exports as a \% to Net Sales | R\&D as a \% to Net Sales | Investment as a \% to Net Sales | Profits as a \% to Net Sales |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Exports as a \% to Net Sales | Pearson Correlation <br> Sig. (2-tailed) <br> N | $13$ | $\begin{aligned} & .865\left({ }^{* *)}\right. \\ & .000 \\ & 13 \end{aligned}$ | $\begin{aligned} & .291 \\ & .334 \\ & 13 \end{aligned}$ | $\begin{aligned} & .570\left({ }^{*}\right) \\ & .042 \\ & 13 \end{aligned}$ |
| $\begin{aligned} & \text { R\&D as a \% } \\ & \text { to Net } \\ & \text { Sales } \end{aligned}$ | Pearson Correlation <br> Sig. (2-tailed) <br> N | $\begin{aligned} & .865\left({ }^{* *}\right) \\ & .000 \\ & 13 \end{aligned}$ | $1$ $13$ | $\begin{aligned} & .155 \\ & .613 \\ & 13 \end{aligned}$ | $\begin{aligned} & .380 \\ & .200 \\ & 13 \end{aligned}$ |
| Investment as a \% to Net Sales | Pearson Correlation <br> Sig. (2-tailed) <br> N | $\begin{aligned} & .291 \\ & .334 \\ & 13 \end{aligned}$ | $\begin{aligned} & .155 \\ & .613 \\ & 13 \end{aligned}$ | $1$ $13$ | $\begin{aligned} & -.096 \\ & .754 \\ & 13 \end{aligned}$ |
| Profits as a \% to Net Sales | Pearson Correlation | .570(*) | . 380 | -. 096 | 1 |


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

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


Independent Variables: R\&D, Profit and Investment
The equation shows that $\beta$ for R\&D comes at 3.336 which is very high compared to the $\beta$ value of other variables. The $t$-value of R\&D comes at 5.710 (highly significant). Value of all other variables has been noted insignificant reflecting lower't'. R\&D thus is the most relevant determinant of exports of Indian Pharmaceuticals.
An increase in a pharmaceutical firm's innovative activities enhances its export competitiveness. This means that the more a firm invests in R\&D, the more likely it is to increase its exports revenue. Ranbaxy developed a new process to manufacture Eli Lilly's Cefaclor, which led to forming an alliance between the two companies (Dhar and Rao 2003). Ranbaxy also developed a Novel Drug Delivery System (NDDS) for Bayer's Ciprofloxacin, which was licensed to the innovator for a substantial sum. Today, Ranbaxy derives around 75 per cent of its revenues from exports. Lupin, the world's largest producer of ethambutol, an anti-TB drug, generated 35 per cent of its sales in overseas markets in 2002. Dr Reddy's Labs, the second largest producer of ranitidine, an antiulcerant, generates around 60 per cent of its sales from exports. India has become known as the pharmacy of the world for cheap medicines. After all, it was the Indian pharmaceutical industry that forced the price drop of antiretrovirals to poor countries from around $\$ 12,000$ to around $\$ 350$ per capita (Aggarwal 2004). The results show that $\mathrm{H}_{2}$ is proved but $\mathrm{H}_{3}, \mathrm{H}_{4}$ and $\mathrm{H}_{5}$ are disproved.

## DMF FILINGS

Indian firms have been filing Drug Master Files (DMFs) internationally primarily to gain entry into regulated markets. Taking lead from Chaturvedi and chataway (2006), we have done a comprehensive survey of India companies filing patents i.e DMFs in the overseas markets particularly USA for the period 1996-2008.
A Drug Master File (DMF) is a submission to the Food and Drug Administration (FDA) that may be used to provide confidential detailed information about facilities, processes, or articles used in the manufacturing, processing, packaging, and storing of one or more human drugs (Malhotra 2008). For exporting Bulk Drug to USA, Indian companies are required to file a Drug Master File (DMF). The company filing a DMF is required to submit detailed information on kind of equipment, location of the plant, description of production facility, process chemistry, raw material specifications, stability data, impurity profile and so on.
Followings are the types of DMF.
> Type I Manufacturing Site, Facilities, Operating Procedures, and Personnel (no longer applicable)
> Type II Drug Substance, Drug Substance Intermediate, and Material Used in Their Preparation, or Drug Product
> Type III Packaging Material
> Type IV Excipient, Colorant, Flavor, Essence, or Material Used in Their Preparation
> Type V FDA Accepted Reference Information
The documentation to register drugs is extremely detailed and often is very expensive to provide such dossiers such as DMFS or ANDAS, etc. The review procedures of such documentation are very stringent and do not permit any low cost approach. The complete process details, site plans and all intricate details are demanded and have to be provided (10). The cost of filing a DMF can be up to USD 200, 000 depending on the product (the steps involved, the processes, the number of tests to be done etc).
The increase in DMF Filings is the important barometer of rising Bulk Drug Exports from India. India is rapidly emerging as a trusted outsourcing destination for not only generic drugs but also high-end, difficult to manufacture innovator/patented drugs. Indian companies have been at the forefront in leveraging the increased outsourcing demand for APIs/Intermediates, which is reflected in the aggressive DMF filings made by Indian companies (IBEF 2008) (11).

## TABLE 6: DMF FILINGS (TYPE II) BY INDIA

| Year | DMF Filings |
| :---: | :--- |
| 1998 | 32 |
| 1999 | 26 |
| 2000 | 33 |
| 2001 | 47 |
| 2002 | 55 |
| 2003 | 115 |
| 2004 | 160 |
| 2005 | 233 |
| 2006 | 267 |
| 2007 | 274 |

Source: Data downloaded, sorted and tabulated from US FDA Website www.fda.gov/CDER/dmf/index.htm visited on 19 December, 2008 In 12 years span India filed 1242 (Type II) DMF Applications which shows active penetration of Indian pharmaceutical Sector into other part of the world. The share of Indian companies in the total DMFs (Type I, II, III \& IV) filed with the US FDA increased to 42 per cent in 2007 from 10 per cent in 1998. The total number of 3911 DMFs were filed globally between 1998 and 2007 with US FDA.

India filed 1242 DMFs during this period and accounted for around one third of drug master files (DMFs) in USA. China's share of DMF filings is less than one-third of that of India and is around $9 \%$ of global filings. The highest number of DMFs verifies the fact that India has out surpassed its traditional rival China in terms of seizing this opportunity effectively.
While analysing the individual companies' performance which are part of our sample, some interesting facts came into light. Dr. Reddy is ranked first in US DMF filings from India (123 Type II Active US DMFs) and ranked number three in US DMF filings globally. Aurobindo pharma (119), Cipla (115) and Ranbaxy (93) ranked second, third and fourth respectively. Three companies have more than 100 DMFs and seven companies have more than 50 DMFs, which reveal towering performance of Indian Pharmaceutical Industry in the export front.

TABLE 7: LIST OF INDIAN COMPANIES INCLUDED IN OUR SAMPLE HAVING TYPE-II (ACTIVE) DMF FILINGS (1998-2007)

| DMF Holder | No. of DMF |
| :--- | :--- |
| Dr Reddy's Labortaries | 123 |
| Aurobindo Pharma Limited | 119 |
| Cipla Ltd | 115 |
| Ranbaxy | 93 |
| Lupin | 72 |
| Cadila healthcare Limited | 61 |
| Orchid | 53 |
| IPCA Labortaries Ltd | 42 |
| Wokhardt | 42 |
| Divi labortaries Limited | 33 |
| Glenmark Generics Ltd | 30 |
| Alembic Limited | 22 |
| Unichem | 13 |
| Ind Swift Labortaries Ltd | 12 |
| Torrent | 10 |
| Piramal Healthcare | 8 |
| Zandu | 2 |

Source: Data downloaded, sorted and tabulated from US FDA Website www.fda.gov/CDER/dmf/index.htm visited on 19 December, 2008. As we have mentioned above the company filing a DMF is required to submit detailed information on kind of equipment, location of the plant, description of production facility, process chemistry, raw material specifications, stability data, impurity profile and so on. To satisfy the US FDA's regulatory requirements, dedicated plants need to be set up at huge costs. It would cost much more than what a plant following WHO GMP ("Good Manufacturing Practices") or that following the guidelines in EU countries would cost. Certification is not a onetime process. Once granted, it requires the maintenance of pre specified norms throughout (Chaudhary 2005).
In other words an US FDA plant requires about six times the cost of an ordinary plant, which most small Indian Pharmaceutical companies have. The cost of such plant for even a simple bulk drug may cost around USD 3-5 million in India (excluding documentation and other costs incurred on exports). Most of the Indian companies which have set up such dedicated bulk drug facilities for the US market have invested atleast USD 10 million. To have a reasonably good portfolio of bulk drugs, the cost of plant and maintenance would be around USD 20 million. (Table 8)
TABLE 8: THE COST INDEX OF PRODUCTION PLANT

| Type of Plant | Cost Index |
| :--- | :--- |
| Ordinary (Not following GMP) | 50 |
| GMP | 100 |
| EU | 200 |
| US FDA | 300 |

Source: Cecile H Miles, "Differential Pricing \& Financing of essential drugs: Experience with Generic Drugs", Ranbaxy Laboratories Ltd, Mimeo. India has one of the largest numbers of FDA approved bulk drug plants in the world outside of USA. The table below clarifies that here was no such production facility before 1985. The ten years spanning 1985 to 1995 saw coming up of only 11 such plants (only 1 by 1990), whereas the post WTO period (1998-2005) witnessed mushrooming of such facilities and number shot up to 119.
Table 9: FDA Approved Indian Plants

| Year | Annual | Cumulative |
| :--- | :--- | :--- |
| 1985 | 0 | 0 |
| 1990 | 1 | 1 |
| 1995 | 10 | 11 |
| 2000 | 33 | 44 |
| 2005 | 75 | 119 |

Source: Ministry of Commerce \& Industry, 2008
Globally India is way ahead to its arch rivals China and Italy in terms of FDA approved facilities. India had 75 approvals in 2005-06 as compared to 55 and 27 of that of China and Italy respectively. India is the world's fifth largest producer of bulk drugs. Demand for bulk drugs has grown at a CAGR of 31 per cent since 2000 -01 to reach US\$ 2.8 billion in 2005-06. India's bulk drug/API exports accounts for $21 \%$ of India's pharmaceutical industry, which, in contrast to many developed countries is significantly higher as bulk drugs are mainly manufactured for internal consumption. Bulk drugs exports grew robustly by $28 \%$ CAGR between 2001-02 and 2007-08 to reach an estimated USD 4.2 bn (OPPI and Yes bank Study 2008). Hence the $\mathrm{H}_{6}$ is proved.

## CONCLUSION

This paper set out to investigate the augmentation of Research and Development activities due to TRIPS and consequent increase in exports of India's pharmaceutical industry. The periodisation from pre-trips to post-trips era has been immensely useful in encapsulating technological
and capability development as well as export behavior of the Indian pharmaceutical industry during different policy regimes. The statistics and other qualitative data presented in this paper confirm the strong inter linkage between R\&D and exports of Indian Pharmaceutical Industry. Indian companies are responsible for most of the increase in patent filings in the US in the form of rising DMFs reflecting qualitative modifications and adjustments in its R\&D capabilities in the production of exportables. The paper indicates that an efficient policy-package promotes the creation of new technology and knowledge on the one hand, and on the other facilitates promotion of exports.

## ENDNOTES

(1)Neoclassical theory, new endogenous growth theories, and evolutionary growth theories which draw inspiration from Schumpeter all emphasize this.
(2) Bulk drugs are active chemical ingredients used to manufacture formulations or finished products.
(3) Formulation - means the same as Product - an active ingredient processed with other materials or formulants to make it easier to apply and/or more effective.
(4) The modern Indian Pharmaceutical Industry was founded partially because of British efforts and rest because of Indigenous backlash. The Bengal Chemical and Pharmaceutical Works (BCPW) was founded by Prafulla Chandra Ray, a staunch nationalist in 1892. In 1903, Raj Mitra, Shri BD along with Prof. A.S. Kotibhaskar and Prof. T.K.Gajjar founded Alembic in Gujrat.
(5) The Patents Act, 1970, Section 5.
(6) Annual reports of various companies, 2009.
(7) Companies' websites.
(8) The Patents (Amendment) Act, 1999, Sections 24A \& 24B
(9) All the variables are as a \% to net sales.
(10) Report of the Task Force, Ministry of Commerce \& Industry, 2008, p. 90
(11) IBEF Pharmaceuticals Market \& Opportunities, 2008, p. 5

## REFERENCES

Aggarwal A. Strategic approach to strengthening the international competitiveness in the knowledge based industries: the Indian pharmaceutical industry (Discussion paper RIS-DP \# 80/2004). New Delhi: Research and Information System for the Non-Aligned and Other Developing Countries; 2004.
Alka Chaddha, Product cycles, innovations and exports: A case study of Indian Pharmaceuticals, Working paper No 0511, Department of economics, National University of Singapore, 2005, p. 2.
Amit Shovon Ray, Learning and Innovation in the Indian Pharmaceutical Industry: The Role of IPR and Other Policy Interventions, RECIIS Electronic Journal of Communication, Information and Innovation in Health, Rio de Janeiro, Vol.2, No.2, 2008. Pp. 71-77.
Dhar B, Rao CN. A case study of the pharmaceutical industry in India: transfer of technology for successful integration into the global economy (UNCTAD/ITE/IPC/2003/6). New York and Geneva: United Nations; 2003: pp. 87-140.
EXIM Bank Study, Indian Pharmaceutical Industry: Surging Globally, 2007, p. 53.
EXIM Bank Study, Indian Pharmaceutical Industry: Surging Globally, 2007, p. 65.
IBEF Pharmaceuticals Market \& Opportunities, 2008, p. 5
Jean O. Lanjouw, The introduction of Pharmaceutical Product Patents in India: Heartless exploitation of the poor and suffering?, Center discussion paper no. 775, Economic Growth Center, Yale University, 1997. P. 4.
Kalpana Chaturvedi and Joanna Chataway, Policy and Technology Co-evolution in the Indian Pharmaceutical Industry, 2006, p.1.
Kalpana Chaturvedi and Joanna Chataway, Strategic integration of knowledge in Indian pharmaceutical firms: creating competencies for innovation, Int. J. Business Innovation and Research, Vol. 1, Nos. 1/2, 2006, p.1.
N Lalitha, Indian Pharmaceutical Industry in WTO Regime, A SWOT Analysis, EPW, 2002, p. 3543.
OPPI and Yes bank Study (2008), "Indian Pharmaceutical industry: Vision 2015", p. 5.
Prabodh Malhotra, "The impact of TRIPS on innovation and exports: a case study of the pharmaceutical industry in India", Indian Journal of Medical Ethics, Vol V, No 2, April- June 2008, p. 64.
Sudip Chaudhary, The WTO and the Indian Pharmaceutical Industry, OUP, 2005, p. 48.
The Patents Act, 1970, Section 5.
UNCTAD- Istnabul, Issue Paper, Globalization and the Least Developed Countries: Issues in Technology, 2007, p. 1.
William Green, The emergence of India's Pharmaceutical Industry and Implications for the U.S. Generic Drug Market, Office of Economics Working Paper, USITC, 2007, p. 2.

## WEBSITES

http://www.cptech.org/ip/health/c/india/patents-act-amendments.html as visited on 22 December, 2009.
http://www.tasnco.com/pat1.htm as visited on 22 December, 2009.
http://www.drreddys.com/media/pdf/DRL_Corp_Presenatation.pdf visited on 23May, 2009.
http://www.fda.gov/CDER/dmf/index.htm as visited on 12 May, 2009.

# CORPORATE SOCIAL RESPONSIBILITY (CSR) OF A TOBACCO COMPANY: A PARADIGM PERSPECTIVE OF AN EXCLUSIVE CASE 

DR.S. P. RATH<br>PROFESSOR - MANAGEMENT STUDIES INSTITUTE OF HOTEL MANAGEMENT (UNIVERSITY OF HUDDERSFIELD, U. K.) RAUZA BAGH AURANGABAD - 431001<br>PROF. BISWAJIT DAS PROFESSOR - MARKETING KIIT SCHOOL OF MANAGEMENT KIIT UNIVERSITY BHUBANESWAR - 751024<br>PROF. RAKESH KATYAYANI<br>PROFESSOR - OPERATIONS INSTITUTE OF HOTEL MANAGEMENT (UNIVERSITY OF HUDDERSFIELD, U. K.) RAUZA BAGH AURANGABAD - 431001


#### Abstract

BAT has climbed the ladder of success in Corporate Social Responsibility (CSR) and has become a global player in reaching 180 countries. BAT is benchmarked for attending the pinnacles in CSR; being a company with a paradoxical product like tobacco. Corporate social responsibility (CSR) has become an important subject in the recent decade. It has become increasingly significant; because it nurtures the vacillating, volatile and value based social expectations of the people; regarding the company. It has enforced the prevalence of a standard and codes of conduct; to uphold the morals of the company in the eye of public. By creating added value in the supply chain, linkages for building public image, for creating repeat buyer. British American Tobacco Company (BAT) is no exception to adhere to this so-called branding exercise. Many companies resorted to harness the potential benefit of employing CSR in companies. It is fostered by the company for improving the reputation, competitiveness and for the sake of better risk management. CSR is prevalent in international research and it is so because of its comprehending critical approach to human welfare. Social responsibility in business is about utilizing resources available, widening facilities and creating scope to activities reaching out to the extremes. Profit and customer king matter in the process of value creation. CSR is designed to ultimately achieve profit by generating trust in the consumers, equitably share with the stakeholders of the society, at large. It has a Dynamic, ambidextrous and flexible rule of the game; relating to the context of the business, place of business and the business type. It cannot at any point of time, become a fashionable notion of a company; which cannot contribute to deliver long-term benefits.


## KEYWORDS

Corporate Social Responsibility (CSR), Ethical Values, Sustainable CSR, BAT (British American Tobacco Company), Social Issues.

## BRITISH AMERICAN TOBACCO CO (BAT OR BATCO): A BRIEF HISTORY

理ritish American Tobacco Co. known as BAT or BATCO is mainly based in London-UK. BAT or BATCO is the second largest listed tobacco company in the world with a market capitalisation of over $£ 30$ billion. (Kotler. and Lee, 2005) This company was established in 1902 as a joint venture of the Imperial Tobacco Co. and James Duke's American Tobacco Co (a tobacco trade cartel). Later on it grew to be a major cigarette company in around 180 countries of the world. (Pound, 2000) They mutually agreed that in USA and UK, both the partner organisations shall 'not compete with each other'.
However, during the trust-busting era of President Theodore Roosevelt, The American Tobacco Co. was forced to divest and Imperial Tobacco also reduced its shareholdings (Knell, 2006). It acquired American Tobacco Co. of what was left of the company after the anti-trust split-up, in which it was immensely affected. The main assets of this US Company were the brands like, Lucky Strike and Pall Mall. Later on it acquired Brown \& Williamson (B\&W) which, at that time, was the largest cigarette company in the USA. (Valasquez, 2005) Reminiscent of original companies re-oriented forming a holding company. It was named as BAT Industries in the year 1976.
Resulting which BAT became a relatively independent organisation that out-grew its parents. BAT's US subsidiary retained a degree of independence from the UK, although it report to the London office. They occasionally exert their own pressure.

## GLOBAL NETWORK OF BATCO

British American Tobacco Co (BAT) being located in London has it's subsidiaries in the UK, Europe, Asia and the old British colonies, apart from other places in the globe. Subsequently, in 1999 it acquired the South African-based company named Rothmans International; after a marathon fight with Philip Morris. Later on it acquired Italy's state tobacco company named as ETI. (Pound, 2000) The company has also diversified into many other industries and owning. They are a major life insurance company, food and beverage companies, etc.
Incidentally this widely acclaimed acronym BATCO is often used when the company is referred to the larger conglomerate or an assembly of companies. (Valasquez, 2005) This company being well known with tobacco is known as a holding company in the USA, named as BATUS having its headquartered in Louisville, Kentucky. Recent revelations of tobacco industry went in for illegal activities, for which B\&W has been split off from BAT and has been sold to RJ Reynolds Tobacco. These are obvious to the world of emerging companies of international repute.

## WHAT DO YOU MEAN BY CORPORATE SOCIAL RESPONSIBILITY?

CSR issues are peculiar, parametric and pen-chanting. (Kotler and Lee, 2005) They are like tracing corporate loophole under a microscope. They are the ultimate human factors which no company can escape. Different organisations have framed different definitions to express CSR. All definitions being different, yet they have considerable common ground between themselves. (Pound, 2000) A definition can be like, 'CSR is about how companies manage the business processes to produce an overall positive impact on society'. The 'World Business Council' for 'Sustainable Development' in its publication titled 'Making Good Business Sense' defines CSR as the 'Continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and society at large'. In fact, essentially, all companies have to answer a couple of aspects. The main two dimensions could be:

1. The quality of management, in terms of people and processes, which can otherwise be termed as the 'inner circle'.
2. The quantity of their impact on society in various areas are known as the 'outer world'. In fact, outside stakeholders do take up increasing interest in the activity of the company. As a matter of fact, most of them look to the 'outer circle' as it relates to more than many.

## CORPORATE SOCIAL RESPONSIBILITY (CSR) AND BUSINESS ETHICS

CSR in a macro context is defined as the 'ethical behaviour of the company / business towards society'. This dictum propagates a school of thought, where the 'The business of business is business' as has been rightly quoted by Milton Friedman. Management lingo 'strategic philanthropy', 'social investment' and 'venture philanthropy' is familiar to the domain of CSR (Knell, 2006). Companies are becoming keen to adopt CSR for enabling better sales; meeting the global standards; for benchmarking themselves with a plethora of social concern.

Economic development cannot happen without social cause and concern. CSR is an aspect of a company's policy. It brings up greater transparency and becomes faithful to the end-customer in the market places (Valasquez, 2005). The KPMG International Survey of Corporate Responsibility Reporting, 2005 has identified the following drivers of corporate responsibility on the priority.
. Economic considerations
Ethical values
Innovative learning
Motivating employees
Managing risk
Increased shareholders value
Brand reputation
Market share
Building supplier relationship
10. Saving cost
11. Developing relationship with government bodies

In fact, it is the enforcement of CSR which improves performance, fiscal spending, reduced operational cost and customer loyalty. It is driven through the 'triple bottom line'. They move through the following parameters to gauze business performance. They are economic, environmental and social factors. (Pound, 2000) The term 'Triple Bottom Line' was coined in 1987 at London. CSR should ensure to abide by the standards applicable to Social Accountability 8000 (SA-8000).

## ETHICS IN CORPORATIONS

Ethical values in corporation are an inseparable part of sustainable development. Utilitarian rule on ethics preaches the gospel of best action, provides the best for most people. John D Rockefeller, Jr. says 'Every right implies a responsibility, every opportunity an obligation, every possession a duty'. (Kotler and Lee, 2005) Corporate governance enforced in the UK's revised combined code took to effect from $1^{\text {st }}$ November 2003; company law reforms fortified the codes. (Knell, 2006) The UK government and London Stock Exchange are pushing sweeping reforms in the combined code and company laws. They have made CSR stringently applicable in the business created in the corporations.

## CSR ESSENTIALLY IS A THEORY

It is regarding what the company has actually done, good or bad, wrong or right, smart or ugly. It is in terms of the companies' products and services, in terms of its impact on the environment and on local communities. It is about how it treats and develops its associated workforce. In fact, out of the stakeholders of various kinds, predominantly it focuses on financial performance and quality of management. Incidentally the above two aspects are taken mainly as indicators; for anticipating future performance.

## PROMINENCE OF CSR

Increase in the prominence of CSR is possible due to the interest of governments worldwide to restrain cut-throat privatization. European commission formally commented and OECD's guidelines designed for multinational enterprises became a tool for promoting CSR. (Valasquez, 2005) CSR is appreciated, endorsed and recognized at the UN headquarters, UN agencies and World Bank.

In Britain, since 2005 there is a minister especially with the responsibility for CSR. Incidentally the British CSR quoted companies will have to publish the operating and financial reviews highlighting the balance-sheet. However, the US doesn't give that much of attention to CSR and empirically focuses on corporate governance. This attitude of US makes it isolated from the countries around the globe in the scale of
economies. (Knell, 2006) Government's imposition of CSR and companies incorporating government are few issues which are obvious to the business climate.

## CSR HAS MAINLY TWO DRIVERS

CSR has mainly 'two drivers' to steer the process in the path of execution. These two are broad based and accurately analysed directions. (Kotler and Lee, 2005) They might not be poignantly fitted but in the macro aspect they shall do so. These two can be elucidated below.
Primarily, it could be a globalization debate, a march for the global Salvationist consensus. It can draw much of its strength, prowess and power from the stubborn arguments, noble ideas and firebrand logic. It is about the multinational business players overpowering the governments of the nation-states.
The 'second driver' of CSR exerts arguments with the idea of government and public opinion. (Kelley, 2001)Being expressed can ensure sustainable development through accomplishment of the business goals. In tune with the goal of the nation, business can contribute appropriately and immensely. Many a time in British American Tobacco Company, both the aspects are taken up.
The only way companies become bigger than countries are by comparing sales with gross domestic product. It is essentially a measure of added value. Bangladesh which ranks about $50^{\text {th }}$ by GDP is actually bigger than General Motors. SAIL and BP are at 61 and 62 respectively, if measured correctly. This is a value proposition for debates to continue and shall combat philosophies.

## SUSTAINABLE CORPORATE SOCIAL RESPONSIBILITY

The globalization process in business is galloping at an unbridled speed; seamlessly moving into the world of statesmanship. Any business can sustain through the application of corporate social responsibility and accountability. It has for the employees, consumers and the ultimate stakeholders. (Pound, 2000) It is bestowed with a comparative sense of care and caution.
Goals designed by the business houses for grappling with competition have to mould itself in the track of sustainable growth and development. Sustainable development is fundamentally significant for the nation to achieve its ultimate goal. (Kotler. and Lee, 2005) It is ultimately paramount for government agencies worldwide and across the frontiers of nations; dotting the planets of civilization. Businesses create values by enhancing the attribute of the product and services and contribute to help and achieve the equitable margin for the stakeholders. They largely contribute to the economic welfare, stimulate innovation, wealth creation and ensure better living conditions.

## SUSTAINABLE DEVELOPMENT

Sustainable Development is a universal phenomenon and is ardently wide-ranging in its vistas. (Kelley, 2001)The modern management in its path for creating value-chain has reposed faith in addressing the cumbersome issues through partnership and custom-marrigisation. It absolutely intends to contribute to the welfare of the society at large. Teaching a retailer the evils of youth smoking to prevent the menace of tobacco smoking is paradoxical to the processes of business. Yet, the social responsibility of a retailer is important for educating the endcustomers. The process requires partnership approach to create balanced solutions to public smoking to banish the smoke.

## CSR IN TOBACCO INDUSTRY IS A CONTRADICTION

CSR is of particular importance for the Tobacco industry. The word 'Tobacco' and 'responsibility' cannot appropriately stand hand in hand. (Kotler and Lee, 2005) In order to create corporate reputation; companies in the 'gambling industry' also advantage out for positioning the name of the company. Sharp US regulators have been dodged by some US companies. Similarly Harrah's Entertainment in US managed to forge good reputation and in that case why cannot tobacco make a name for it self. Modus operandi of execution can be need based and oriented to situational context. As a matter of fact, Harrah's Entertainment as a company 'refuses to award welfare benefits' but 'guides the compulsive gamblers and addicts to 'Helpline' for counselling'. It also discourages youngsters from gambling. (Kelley, 2001)The paradox of CSR in this controversial business can be relevant for 'trapping irrelevant people' for philanthropy.
British American Tobacco (BAT) is gaining momentum in business continuously unchecked. It became a free-standing tobacco company in 1998 at a recognized pace. It became just because the business was relatively of low value, and didn't seem to be sustainable. Businesses that are sustainable have to be high-value and of everybody's concern. (Valasquez, 2005) The challenge is to balance our commercial objectives with a reasonable and logical expectation and lookout of the society. This process is constructive and is to bring the outside in. It has to be consistent with our communication that we promote. If the organization cross-promotes, say something and do something else, company's image and reputation will be jeopardized.

## DIFFERENT DEFINITIONS OF CSR IN DIFFERENT COUNTRIES: EUROPE IS UNIQUE

CSR is defined in Ghana as the 'Capacity building for sustainable livelihoods which respects cultural differences and finds the business opportunities in building the skills of employees, the community and the government'. In Philippines it is defined as the 'Business of giving back to society'.
In fact, the European model adopted by BAT is much more focused and it lay stress on the operational aspects of core business; in a socially responsible way. It advocate, complement and facilitates by making philanthropy, help lines and investment in communities, bounded by the all round business forces. (Pound, 2000) This European model adopted by BAT is more sustainable because, herein 'social responsibility' becomes an integral part of the process of wealth creation. It adopt process driven modalities to exploit the available opportunities by creating a value chain (Valasquez, 2005). The cardinal believes is that, if this gets managed properly; it shall enhance competitiveness of business and maximise the vital core values for creating wealth in the society. It therefore, becomes a boon, impetus and incentive to the practice of CSR in BAT.
The BAT-CSR process is being based on the collective activities of communities; of human beings. Having 180 companies across the globe; there is no 'single size that fits all'. It is because of that reason in different countries, there will be different priorities, and the values of that country shape the business.

## SOCIAL ISSUES DEVELOPING

Pacing social issues are evolving with changes in the social texture. CSR orientation commensurate with industry specific approaches, and corporate ethics in alignment with the social issues of development. BAT has ethical values quite poignant and has to abide by the scope of social marketing plans. (Kotler and Lee, 2005) Incessant pressure on business; for playing a role in the social issues are continually growing due
to privatization euphoria. (Kelley, 2001)Social actors are actively operating. Over a decade it has been seen that, the organisations which are growing in power, penetration and influence; have been operating effectively in the global sphere.
The corporate like BAT which are predominantly tied to the nation state are finding themselves increasingly adapting to the national agenda, police and judiciary. (Valasquez, 2005) Over the years, it has been seen that, there is a growing interest in businesses players for taking lead in addressing those issues of national government. (Knell, 2006) The focus of Unilever in supporting a sustainable fisheries approach is one such example of the kind.

## EXTERNAL CRITICISMS: NEWS PAPER HIGHLIGHTS ON CSR OF BAT

BAT has been commented by many news papers, magazines, press and critics in manifold ways. Corporate governance and ethics are most important angle to adjudge a company's concern for the people and society, apart from business. Corporation not abiding by the standpoints of human values are criticized for their avarice and greed for profits. (Kotler and Lee, 2005) Developed nation like UK has provided a set of values for making the corporations responsible for human welfare. In fact, violation of the rules, concern for people and various derelictions are ventilated by the press, from time to time; to enable the organizations take up corrective measures. Few of the captions which are connoting worthy are being given below. (Knell, 2006) They have in a way highlighted the quintessence of the ethical properties of companies and the adopted value systems. The news items are mainly:
"British American Tobacco under fire for practices in Africa", "Nigeria: British American Tobacco faces accusations of targeting the young", "US: Tobacco firms lose lawsuit on fraud", "Canada: Imperial Tobacco accused of involvement in smuggling", "British American Tobacco gives up on Burma", "South Africa: BAT donation controversy for Cape Town University", "Australia: Government to intervene in British American Tobacco case", "British American Tobacco pressured to withdraw from Uzbekistan", "British American Tobacco under human rights pressure, "British American Tobacco pursuing the dream of low-risk tobacco:"

## UNPRECEDENTED MASTER SETTLEMENT AGREEMENT AT USA: ETHICS WATCH

Manipulations, decoy PR and duping advertisements are unethical. (Pound, 2000)The Master Settlement Agreement signed in 1998 at USA by all US tobacco companies and BAT's then subsidiary B\&W to not to become involved in science manipulation, underhand PR and lobbying activities have been historic an agreement. BAT presently sold B\&W to RJ Reynolds, and feel that it is not required to abide by the rules agreed earlier (Kelley, 2001).

## BAT FRAUDULENT CAMPAIGN BY UNIVERSITY RESEARCH FUNDING

BAT deployed millions of pounds for funding university grants to research. It was to back the sensational issues relating to 'genetic predisposition'. It argues with the logic that; certain people are vulnerable to lung cancer than other people; because of 'bad genes'. 2004 unfolded that it the design of BAT. The environmental group named as 'Gene Watch' had confirmed BAT the reason of 'bad genes'. (Kotler and Lee, 2005) This was the BAT's biggest university project in the 1990s. Being ordered three times by U.S. District Court of Columbia to release the 1990 memorandum, BAT refused legally. This 'Foyle memorandum' by the British lawyer signifies the 'document retention policy' of the company.
In one other case, U.S. government lawyers contend that it contains evidence of BAT and associated tobacco companies 'took steps to destroy, suppress or otherwise shield the internal research documents relating to smoking and health'. U.S. in the government was employing the document for a $\$ 280$ billion lawsuit against big tobacco, alleging tobacco companies for having defrauded the public by hedging health risks of smoking for five decades and above'.

## BAT'S PLANT IN NORTH KOREA: A SECRET BUSTED

It was reported that BAT, the second biggest cigarette company in the world, has been secretly operating factory in North Korea for four years. This report was hosted in 'The Guardian', which was mentioned in the annual accounts. At that point of time, North Korea's human rights violation; on the torture and execution of detainees, Amnesty International commented on the 'basic absences of political freedom' in North Korea. (Pound, 2000) BAT's reluctance to intervention in the governments though look unethical, being a partner in business, BAT was accused for the lack of social responsibility. He was thought to be 'lead by example' by promulgating and international corporate social responsibility. This complicated the political life Kenneth Clarke's candidacy, as a British politician; to head the Conservative Party because, Clarke worked in BAT in 1998, by chairing corporate social responsibility committee. BAT confessed that Clarke was aware regarding the North Korean factory.

## BAT'S BUTT LITTERING CAMPAIGN IN AUSTRALIAN

An organisation named 'Butt Littering Trust'(BLT) was funded substantially by BAT for organising a battery of education campaigns to clean cigarette butts and build awareness. (Kotler and Lee, 2005) It made partnership with few local councils for the campaign. BLT declares that it is an independent organisation, and has volunteered the cause having no reference to BAT Australia. Irony of the incident is that, the main sponsor was Mr. Valerie Ritchie, the Head of Public Relations at BAT Australia, a board trustee. Similarly, 'North Sydney Council' (NSC) started an anti-littering campaign; partially funded by BAT Australia via NSC. This campaign was engaging protesters clad in dresses portraying marine animals threatened by cigarette butt pollution. They eventually approached smokers in the streets. Members of the protesters were asked to fill in questionnaires said, 'The Herald'.

## CSR OF BAT AT BURMA

British American Tobacco (BAT) launched the $2^{\text {nd }}$ corporate social responsibility report. In doing this Chairman Mr. Martin Broughton vented his companies 'rancour' against the UK government for urging the company to withdraw from Burma. BAT has been under huge pressure, for being the last UK Company to remain presence in Burma, ever since the arrest of the oppositionleader-AungSanSuuKyi.
Mr. Martin Broughton said that the BAT is still looking in to the formal request by the government to retreat and go back. Government later on decided to take it on to itself. Many companies are becoming responsible for human rights in workplace and territory of activities. (Kotler and Lee, 2005) Matters of 'Macro Human Rights Issues' are the matter of concern for the Governments.

## BAT'S CSR REPORTS

BAT's first CSR report was launched and was being awarded ACCA's 'Best First Time Reporter' award. All CSR report covers all round aspects of the company's approach to product responsibility, supply chain management, environment and workplace. It reveals the company's broad framework for corporate social responsibility. CSR report is produced in collaboration with the Institute for Business Ethics (Pound, 2000).

British American Tobacco in 2004 sponsored its first Corporate Social Responsibility Conference in Kuwait. British American Tobacco announced its sponsorship and participation on the social responsibilities of companies and corporations. It was organized by 'Multaqa Media Group' in cooperation with TRACCS Public Relations Network; supported by UNDP.

## CSR SOCIAL REPORTING AND COMMUNICATION PROCESS

CSR of BAT is a world repute phenomenon. It is doing social work on many of the necessary divisions of social concern. Areas of voluntary actions are spontaneous to the place specific and are varied in nature. (Holtz, 2007) The aspects that have been dealt in the CSR of BAT are important for the company to implement. They have been elucidated below and explained on the requirement.

## BAT COMMUNICATION AND ADVERTISEMENTS FOR GENERATING TRUST

In order to promote BAT, the company developed 'myth-dispelling website' with a dialogue facility for an approach to CSR. (Csorba, 2006)In order to trust the company, stakeholders were invited to lodge themselves in a dialogue process. Stakeholders relied on the process created for interaction with the company folks. The process was verified by Bureau Veritas, a consulting organization of world repute. BAT website was 'ranked as the best' in the FTSE by a leading independent surveyor. (Kotler and Lee, 2005) This candour, simplicity and initiative prompted the organization to access for maintaining an international marketing standard. Advertisements were to appear in printed publication where $75 \%$ of the readership is adults and are not influenced by smoking. BAT voluntarily withdrew from TV and radio in different parts of the world where it was still permitted; and also from Formula One sponsorship.

## BUSINESS PRINCIPLES, COMMUNICATION AND BUSINESS ETHICS

Eventually surprising questions, interviews and rounds of dialogues are being faced by British American Tobacco (BAT) on the basic principles. Slowly, BAT developed an explicit set of business principles to promote and protect its own interest for observing business ethics (Holtz, 2007). Stakeholders essentially do not bother about the views on effects of smoking on health and who produces the product.
The basic principles of British American Tobacco were could be mutual benefit, responsible product stewardship and good corporate conduct (Csorba, 2006). It can be a corporate credo for the modern version of the company (Pound, 2000). BAT has created governance system at local, regional and PLC level and has created main-board

## CSR SOCIAL REPORTING PROCESS

BAT's dialogue process with various partners in the value chain; starting with retails. They are being questioned through the social reporting process. It is taken up by the company through the PLC level and in the 37 market places covering two-thirds of sales volume of the company (Kelley, 2001). People from tobacco control associations and public health communities and stakeholders' groups have taken part in the countrywide campaign. Despite the prerogative of the government BAT had to face the pressure groups revolting, articulate and save the public's minds effectively. Pressure groups influence more than the government on the license to operate.

## FORMAL LEVEL RESPONSIBILITY

British American Tobacco (BAT) as an integral part of the strategy is showing responsibility at the formal level. The formal levels are building shareholders value, growth, and productivity as a winning organization (Holtz, 2007). Research reveals that $80 \%$ of UK investors in 2007 believe that BAT is committed to Corporate Social Responsibility and $70 \%$ thought that BAT is making some progress. PLC committee level has a framework for corporate social responsibility (Pound, 2000).

## CSR AND EMPLOYEES WELFARE AT BAT

## EMPLOYEES OF BAT ON CSR

Corporate and Regulatory Affairs Manager Northern, Gulf Eric Jones said, 'Social Responsibility as a concern is a part of BAT's strategy and plan. It has been so for quite some time. It aims at reinforcing company's social role that it plays in different countries worldwide. Social responsibility is not only considered as an inseparable part of the Company's strategy; but lies on top of its priorities. It is treated as paramount during planning and formulating strategies'. Employees confirm that there are principles and values which the Company adopts as a part of its 'social responsibility' (Holtz, 2007). It includes combating underage smoking, environmental protection, fighting against child employment. BAT has executed since last few years; a number of joint projects; with a number of entities to confirm and deepen the concept of social responsibility. Program with Kuwaiti Teachers' Association entailed a huge campaign against juvenile smoking.

## WHAT EMPLOYEES FEEL

Perception and feeling of employees on the business is essential for internal marketing and enhancing CSR values. (Holtz, 2007) The employees acclaim the commendable contribution of BAT to transparency upholding the ethos of CSR. They boast of the confidence and pride of answering the legitimate concerns to the questions which are often concealed as an anti-business agenda. It includes the core of the fiscal implications relating to the vital aspect of sustainable development.

## BIODIVERSITY PARTNERSHIP IN CSR

BAT engages social organisations for the preservation of bio-diversity, flora and fauna. This acclaimed process of persuasion shall produce tangible outcomes for the society to believe in the company.

## BIODIVERSITY PARTNERSHIP

Biodiversity partnership involves four conservation NGOs namely Earth Watch Europe, Fauna and Flora International, the Royal Botanic Gardens, Kew and the Tropical Biology Association. They contribute immensely in multi-pronged ways to the biodiversity by virtue of a host of programs like flower Valley Conservation Trust in South Africa.

## ELIMINATING CHILD LABOUR

In order to eliminate child labour, the Eliminating Child Labour in Tobacco Growing Foundation was established with International Tobacco Growers Association, the trade unions and the leading tobacco companies.

## CANADA TOBACCO CONSUMERS

Moreover, five million tobacco consumers of Canada have been ignored in the regulations and are being helped for a new online smokers' association by BAT. Consumers as citizens and taxpayers can alert themselves. Though UK retailers are a major voice in appealing for legal actions on illegal trade, they invariably support for the programs.

BAT's biodiversity partnership and eliminating child-labour in tobacco growing fields are exemplary in the domain of Corporate Social Responsibility (Kelley, 2001). Both the aspects have been elucidated below on the context.

## COMMENDABLE ACHIEVEMENT OF BRITISH AMERICAN TOBACCO (BAT)

British American Tobacco (BAT) is the world's noted international Tobacco group. It is the second largest stock market listed tobacco group by global market share. They essentially hold strong market positions around the world; and have leadership dominance in over 50 markets, with over 300 brands in the portfolio. BAT aims to enforce CSR through the method of constructive dialogue with stakeholders. It ensures reinforcement of the principles of corporate social responsibility in BAT; throughout the British American Tobacco Group. (Kotler and Lee, 2005) It intends to be recognized as a responsible company in the industry. It is seen as controversial company preaching charity. In the GCC, BAT is the second biggest tobacco company with a market share of 27 percent. It has the best of the brands like Dunhill, Kent, Rothmans and John Player Gold Leaf.

## ACCLAIMED PRIZES OF BAT FOR CSR

BAT was awarded with a number of commendable prizes to commemorate the quality of its CSR work. For BAT to adopt; Corporate Social Responsibility was a commitment to improve community wellbeing through discretionary business practices and contribution of corporate resources. BAT took up various initiatives for the upliftment of the people. Corporate Social initiatives are the major activities undertaken by BAT as a corporation to support the social causes and to fulfil commitments to Corporate Social Responsibility. (Kelley, 2001) BAT was recognised for the yeomen service rendered.
BAT was awarded with 'Price Waterhouse Cooper Building Public Trust Award' for 'Stakeholders' Communications' and the 'Electronic Media Category' in the 'Sustainability Reporting Awards' run by the 'UK Association of Chartered Certified Accountants' and was awarded the 'Best First Time Social Report' in 2006.
In 2004, 2005 and 2006 BAT was in the premier league of companies scoring more than $95 \%$ in the business in the community index of corporate environmental performance and engagement. BAT is the first tobacco company which was listed in the 'Dow Jones Sustainability World Index', and has been winning since last three successive years. Price Waterhouse Coopers Building Public Trust commented in its report on corporate governance and executive remuneration in the 2006 annual report calling BAT ‘Bold and Innovative’ (Valasquez, 2005).
CSR of BAT is a journey for keeping the company sustainable and bringing change in the government for building bridges with the private players.

## WORRYING NOTIONS AND PARADOX OF COMPANIES

Can companies become capable of resolving the world's most concerned social and environmental problems that are offing? The views that emanate from the business houses from the aspects of social development are imperatively to look to be philanthropic. Some critics say that, British American Tobacco has the motive of making money and incorporates CSR to make more money (Knell, 2006).
Additionally, BAT as a company provides and contributes enough to the sustainable development and ensures that their own businesses are sustainable. CSR is the way to sustainable future because it helped to align the population with the society's expectation. (Kelley, 2001) It enhanced competitiveness, built reputation and integrated risk-management comprehending the path to business. British American Tobacco believes in an ideology quite close to the essence of business for the sake of business.

## REFERENCES

Agarwal, S.K. (2008) ‘Corporate social Responsibility in India’, Response Business Book from SAGE', pp.59-134
Csorba,L.T. (2006), 'Trust-The One Thing that Makes or Break a Leader', Dorling Kinderley, London, pp.25-32,222-229
Holtz, S. (2007), 'Corporate Conversations', PHI, pp.35-42,181-189
Kelley,T. (2001), 'The Art of Innovation', Profile Books, London, pp.1-2,277-284
Knell, A. (2006), 'Corporate Governance-How to Add value to Your Company', Elsevier Pub., Oxford, pp.5-7, 31-32, 42, 179-182
Kotler, P. and Lee, N. (2005) 'Corporate Social Responsibility-Doing the Most Good for Your Company and Your Cause’ John Wiley \& Sons,Inc., Canada pp.22-31, 115-126, 207-220
Pound, J. (2000), 'A Promise of the Governed Corporation', Harvard Business Review on Corporate Governance, HBR, pp.79-91
Robin,D.P. ( 2005), 'Why Ethics and Profits can and Must Work Together in Business' pp.196-221 by Peterson, A. R. \& Ferrell, O.C.(ed.) (2005), 'Business Ethics'-New Challenges for Business Schools and Corporate Leaders, PHI
Valasquez, M.G. (2005), 'Business Ethics-Concepts and Cases', Pearson-PHI, pp.371-383,482-489

# reflections of self help groups and their mammoth growth in the state of TAMILNADU, INDIA 

R. LAKSHMI<br>RESEARCH SCHOLAR IN MANAGEMENT STUDIES BHARATHIAR UNIVERSITY COIMBATORE<br>PROF. DR. G. VADIVALAGAN DIRECTOR<br>DHANALAKSHMI SRINIVASAN INSTITUTE OF MANAGEMENT PERAMBALUR - 621212


#### Abstract

Self help groups (SHGs) have emerged as a key strategy for women development. The Tamil Nadu Women Development Project under the name of Mahalir thittam in Tamilnadu has now grown into a mammoth movement covering all districts in the state, targeting poor families and the marginalized sections of the society. Some women do benefit from such programmes, increasing their incomes and bargaining power in the household and their status in the community. But other issues like control over credit, and income from credit, additional workload and debt burden after joining the SHG, problems in marketing the products and facing competition are to be explored in depth.


## KEYWORDS

Mahalir Thittam, SHG, Tamilnadu, Women.

## INTRODUCTION

 omen form the integral part of the society. Yet they are the most under privileged and vulnerable section of the society and constitute a sizeable segment of those who belong to the below poverty line. Developing countries lay more stress on women development and their active participation in the main stream of development activities. The empowerment of women and improvement of their status and economic role needs to be integrated into economic development programs, as the development of any country is inseparably linked with the status and development of women Self help group is emerging as a powerful instrument for improving women's participation in the development process. The innovation of self help groups has helped the poor especially women to gain access to credit and thrift activities. Under SHG the women organize themselves into groups; meet regularly with the intention of finding a solution to a common problem. These organized idle women after their access to thrift and credit activities are transferred into productive workforce, leading to income generation, economic independence and social upliftment.

## CONCEPT OF SELF- HELP GROUPS

Self-Help Group (SHG) is a homogenous group formed by 10-20 members of poor households having similar objectives, aims and aspirations. The SHGs are formed under the principle of self-help to promote individuals through collective actions in areas of augmenting income, gaining easier access to credit and other resources and increasing their bargaining power. The SHG is a voluntary association of the poor who come together to improve their socioeconomic conditions.

## THE GENESIS AND GROWTH OF SHGS IN INDIA

The Self Help Group (SHG) in India has come a long way, since its inception in 1992. However the first effort was taken by NABARD in 1986-87 when it supported and funded an action research project on "Saving and Credit Management of Self Help Groups" of Mysore Resettlement and Development Agency (MYDRA). Then NABARD launched a pilot project to provide micro-credit by linking SHGs with bank in 1991-92.
The spread of SHGs in India has been phenomenal. It has made dramatic progress from 500 groups in 1992)to some $16,18,456$ groups that have taken loans from banks. About 24.25 million poor households have gained access to formal banking system through SHG-bank linkage programme and $90 \%$ of these groups are only women groups

## SPREAD OF SHG IN TAMILNADU

In Tamilnadu SHG movement was started in a small way in Dharmapuri district in 1989. The success of the Project encouraged extending the project to all the rural areas in the State in a phased manner. Government of Tamil Nadu spearheaded the Self Help Group (SHG) concept with the now popularly called "Mahalir Thittam" project, which was launched during 1997-98 with State Government funding and was progressively extended to all the 30 districts. The vision of the project is to reach out and empower women below the poverty line through Self reliant and sustainable Self Help Groups. The Mahalir thittam in the state had now grown into a mammoth movement covering all districts in the state, targeting poor families and the marginalized sections of the society

## CURRENT STATUS

The SHG movement, which was started in 1989 as a spark in the horizon, and has now emerged as a powerful and vibrant movement illuminating the lives of poor women across the length and breadth of the state. The following table gives the details of SHGs as on 31.03.2008, 31.03.2009 and 31.03.2010

Table -1: GROWTH AND BANK LOANS DISBURSED TO SHGs IN TAMIL NADU

| year | No: of SHGs | Amount of loan disbursed Rs (crores) |
| :--- | :--- | :--- |
| $2007-08$ | $3,58,251$ | 2543.36 |
| $2008-09$ | $3,91,311$ | 5337.96 |
| $2009-10$ | $4,41,311$ | 8129.61 |

Source: TNCDW
FIGURE-1: NUMBER OF SHGS LINKED DURING THE YEAR 2007-2008, 2008-2009 \& 2009-2010


Source: TNCDW
FIGURE-2: BANK LOANS DISBURSED TO SHGS DURING THE YEAR 2007-2008 2008-2009 AND 2009-2010


Source: TNCDW
The state government's intervention had led to a massive increase in credit linkages for women's self-help groups in Tamil Nadu. During 20082009 as many as 3.91 lakh groups with strength of 62.93 lakh members were functioning across the state. Their total credit was Rs 5,337 crore. In 2009-2010 4.41 lakh groups with strength of 69.91 lakh members are functioning across the state. Their total credit was Rs 8,129 crore The Tamil Nadu Corporation for Development of Women, which is spearheading the movement, had brought out qualitative change in the lives of women. Several studies indicate that self help group programmes often in the form of credit or micro credit schemes and savings have succeeded in changing the lives of poor women by making way for enhanced income and increased self-esteem. This is evident from the mushrooming growth of self- help groups in the state.

## MICRO SATE -MICROFINANCE BRANCHES

Self-help groups (SHGs) in Tamil Nadu, India, have achieved greater access to credit due to openings of "Microsate" microfinance branches of private commercial banks, such as Indian Bank and Canara Bank, in rural areas. Out of the 27 micro sate branches opened by Indian bank in the country 12 branches have been established in Tamilnadu. Canara Bank has established 2 branches in the state. Indian Bank will facilitate the members of women's self-help groups (SHGs) to establish contact with foreign and domestic buyers without the intervention of middlemen at its Microsate Branches all over the country and help the groups improve the domestic and export market of the SHG products and increase their profits.

## REFLECTIONS OF SHG

The pilot survey conducted in the study area and the lessons learnt from the previous studies reflects the following

## ACCESS Vs CONTROL OVER CREDIT

The main reason for women joining the self help group is to obtain credit for productive purpose. SHGs help in access to credit but, do women really have control over their loans is a major issue to be looked upon. Goetz and Gupta found that an average of $39 \%$ of women had little or no control over their loans in the four Bangladesh programs they studied. However, Helen Todd points out that this means that $61 \%$ of women have partial or full control, which is a striking improvement over "the kind of powerlessness with which these women begin." Several studies also show joint decision-making about business investments between women clients and their husbands. Thus majority of the women merely passed of their amount of loan to their husband or sons or in laws with little or no control over the loan amount.

## INCOME FROM CREDIT

In a study conducted by Basu $78 \%$ of women reported they could not use the income at their own discretion (without consulting their husband). A sizeable number ( $42 \%$ ) of women reported that they do have their own independent savings, and if they did, husbands were aware of these savings $91 \%$ of the time. Wives expressed having a low level of control over these savings, with $85 \%$ saying that they were not able to decide autonomously how to utilize them. Hence even though women had income and savings through SHG how to use the income and savings were in the hands of their husband or family members.

## ACCESS AND CONTROL OVER ASSETS

SHGs help in the creation of assets. The extent to which women retain control over assets purchased as a result of credit is also another factor to be looked upon. Many women register land and productive assets in their husband's name, because of inheritance laws: assets will be inherited by sons if registered in the husband's name, and by daughters if registered in the wife's name (Kabeer 1998:48-50). This raises questions about any assumed automatic links between credit and transformation in gender relations but also reflects the extreme dependence of women on husbands and sons for physical security, particularly in old age.

## MARKETING PROBLEMS

When women are engaged in producing local products in village and cottage industries they do not earn much due to absence of successful marketing It was observed that some of the SHGs engaged in food processing encounter similar problems. They were unaware of the scope of broadening their markets.

## INABILITY TO FACE COMPETITION

SHGs are not able to face open market competition and are scared of competing with the existing products because they lack in investment resources required to produce high quality products. SHGs find it very difficult to survive in the highly competitive market

## DEBT BURDEN

There are many studies which reveal that SHGs have improved the economic status if the members while a few argue that it increases the debt burden. In the study conducted by JyotirmayeeKar85\% of them used the SHG loan to repay their earlier loans from money lenders and as such they could not use the credit productively to increase their income. Thus there is no way to be free from high cost informal borrowing. In our pilot study Kalavathi a SHG animator accepted this fact but Papai a SHG group leader who is engaged in milk and milk products sale disagrees and says that she is free from the clutches of money lenders after joining the SHG.

## ADDITIONAL WORK LOAD

Linda mayoux in a briefing paper for the Micro Credit Summit, Washington, February1997 comments that self help group members have access to income at the cost of heavier workloads and set up enterprises over which they had little or no control. They were employed as unpaid family workers with little or no benefits. In some cases small increase in womens income led to decrease in males contribution in house hold expenditure.

## CONCLUSION

From the pilot study and review of literature we can find some women do undoubtedly benefit from some programmes, increasing their incomes and using this to raise their bargaining powering the household and their status in the community. It is impossible to say for how many women, or in which contexts it is occurring. The other issues discussed above i.e whether the women have control over the loan amount and income from credit? The debt burden and additional work load after joining SHG, problems in competing and marketing are to be explored in depth

## REFERENCES

1. Goetz, Anne Marie, and Rina Sen Gupta (1996) "Who Takes the Credit? Gender, Power, and Control over Loan Use in Rural Credit Programs in Bangladesh." World Development 24:1 45-63.
2. Interview with Helen Todd in Countdown Newsletter (2005), Microcredit Summit Campaign. September Issue.
3. Jyotish Prakash Basu(2006), "Microfinance and women empowerment, An empirical study with special reference to West Bengal".
4. Jyotirmayee Kar (2008) 'Improving Economic Position of Women through Microfinance: Case of a Backward Area, Mayurbhanj-Orissa, India' Indus Journal of Management \& Social Sciences Vol. 2, No. 1: 15-28
5. Linda Mayoux(1997) "The magic ingredient ? Microfinance and Women Empowerment" A Breifing paper prepared for the Micro credit Summit, Washington, February.
6. Mathew P. M. (2000) "Training and empowerment of rural women in kerala", thesis submitted to Mahatma Gandhi university, Kottayam
7. MICROFINANCE WORLD, January-February-March 2010 (The express publication)
8. Naila Kabeer (1998), "'Money can't buy me love?": Re-evaluating gender, credit and empowerment in rural Bangladesh', IDS Discussion Paper, 363
9. Tamilnadu Corporation for Development of Women (TNCDW), Annual Report-2009-10.

# CONSUMERS' PERCEPTION ON MATCHING QUALITY OF CELEBRITY AND BRAND FEATURES IN ADVERTISEMENT 

DR. P. RAJA<br>ASST. PROFESSOR-II, DEPARTMENT OF MANAGEMENT SCIENCES<br>VELAMMAL ENGINEERING COLLEGE<br>CHENNAI-600 066<br>PROF. (DR.) R. ARASU<br>DEPARTMENT OF MANAGEMENT SCIENCES<br>VELAMMAL ENGINEERING COLLEGE<br>CHENNAI-600 066<br>D. KARTHIK<br>ASST. PROFESSOR, DEPARTMENT OF MANAGEMENT SCIENCES VELAMMAL ENGINEERING COLLEGE CHENNAI - 600066


#### Abstract

Celebrities 'cut through' advertising clutter, hold viewer attention, contribute to brand name recognition and transfer positive qualities such as physical attractiveness and likeability to the brand. The similarity of celebrity was positively correlated with identity and confident at one per cent level of significance while similarity was negatively associated with positive image and attractiveness at one per cent level of significance. The attribute of identity was positively correlated with confident while it was negatively associated with favourite, scandal and positive image at one per cent level of significance and it was negatively correlated with attractiveness at five per cent level of significance. In overall, the brand features of celebrities help me to remember the brand, creditability of the brand, quality of the brand, advertisement of the brand and price of its products were noticed by the consumers and there was a significant differences among the consumers' perception of the consumers about brand features as noticed by them. In overall, the brand features of celebrities help me to remember the brand, creditability of the brand, quality of the brand, advertisement of the brand and price of its products were noticed by the consumers and there was a significant differences among the consumers' perception of the consumers about brand features as noticed by them. Since celebrities have the impetus to market the product quickly, they have the advertisers running behind them for various benefits including brand credibility, creating interest; thereby, creating a winwin situation.


## KEYWORDS

Similarity, Scandal, Positive Image, Chi-Square, Rank Correlation.

## INTRODUCTION

Advertisements of all varieties pop up everywhere on streets, in stores and restaurants, and on public transportation. Each of these advertisements attempts to steal at least a fraction of an unsuspecting person's time to inform him or her of the amazing and different attributes of the product at hand. Because of the constant media saturation that most people experience daily, they eventually become numb to standard advertising. The challenge of the advertiser is to find a hook that will hold the subject's attention and keep them from changing the channel or turning the page.
One well-used approach at differentiating advertisements is the use of celebrity endorsements. Using celebrity fame, bought or contrived, has certain advantages and risks. A celebrity-product association can capture a viewer's attention, increase the public's awareness of the product, and cause consumers to purchase the product endorsed. In contrast, celebrity-products associations can be very costly and risky based on the potentially volatile image, nature, and credibility of the personalities used.
Celebrities 'cut through' advertising clutter, hold viewer attention, contribute to brand name recognition and transfer positive qualities such as physical attractiveness and likeability to the brand (Dyson and Turco, 1998; Charbonneau and Garland, 2005). The source credibility model suggests message effectiveness depends on the endorser's perceived credibility. Celebrity combines both expertise and trustworthiness. Through the process of internalization, credible sources influence consumer beliefs, attitudes and or behaviour (Kamins, 1990; Ohanian, 1991). The source of attractiveness model proposes that message effectiveness depends on the similarity between source and receiver, source likeability and source familiarity through repeated media exposure. Information from an attractive source is accepted because of the consumer's desire to identify with that source (Erdogan, 1999). In the product match-up model, effective advertisement results when the messages conveyed by celebrity image are compatible with product image (Pornpitakpan, 2003). With this background, the present study was attempted to study the matching qualities of the celebrity with advertisement, brand image and consumers' perception and relationship between matching qualities of celebrity and advertisement in Madurai city of Tamil Nadu.

## METHODOLOGY

The Madurai city is purposively selected for the present study since it is the predominating trade center for South Tamil Nadu. About 120 respondents were selected by adopting simple random techniques and were interviewed. Information/data was collected by interviewing the respondents by using a pre-tested, well-structured interview schedule. The data and information collected pertains to the year 2009-10. The descriptive statistics, frequency analysis and mean score and ranking were carried out to draw meaningful interpretations.

## SPEARMAN'S RANK ORDER CORRELATION

In order to identify the relationship between matching qualities of celebrities and advertisement in celebrity endorsement, the Spearman's rank order correlation was worked out and the formula is;

$$
r=1-\left(\frac{6 \Sigma^{2}}{n\left(n^{2}-1\right)}\right)
$$

Where, $d=$ Difference in Ranks $n=$ Number of Pairs.

## CHI-SQUARE TEST

In order to study the differences between brand features and perception of the consumers, the Chi-Square Test has been employed and the formula is:

$$
\chi^{2}=\sum\left(\frac{(O-E)^{2}}{E}\right)
$$

Where
$\mathbf{O}=$ Observed Frequency $\quad \mathbf{E}=$ Expected Frequency
d.f $=$ Degree of Freedom $=(n-1)$
$\chi^{2}=$ Chi Square

## RESULTS AND DISCUSSION

The general and socio-economic characteristics of consumers were analyzed and the results are presented in Table-1. The results indicated that the majority of the consumers ( 64.16 per cent) were the age group of $21-30$ years followed by less than 20 years and $31-40$ Years. About 45.80 per cent of were married while 79 per cent were males. The majority of consumers ( 49.17 per cent) were postgraduates and about 30 per cent of consumers were under-graduates. The monthly income of consumers were ranging from Rs. 0-5000(85 per cent) followed by Rs.500010000 ( 8.34 per cent). About 70.83 per cent of the consumers have a family size of $4-6$ members followed by less than 3 members ( 25.00 per cent).

TABLE-1: SOCIO-ECONOMIC DEMOGRAPHIC CHARACTERISTICS OF CONSUMERS

| Variables with Category | Respondents( $\mathrm{N}=120$ ) |  | Variables with Category | Respondents( $\mathrm{N}=120$ ) |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Number | Per Cent |  | Number | Per Cent |
| Age |  |  | Monthly Income(Rs) |  |  |
| < 20 Years | 16 | 13.33 | 0-5000 | 102 | 85.00 |
| 21-30 Years | 77 | 64.16 | 5001-10000 | 10 | 8.34 |
| 31-40 Years | 14 | 11.67 | 10001-15000 | 4 | 3.33 |
| 41-50 Years | 8 | 6.67 | > 15000 | 4 | 3.33 |
| > 51 Years | 5 | 4.17 |  |  |  |
| Gender |  |  | Marital Status |  |  |
| Male | 79 | 65.80 | Married | 55 | 45.80 |
| Female | 41 | 34.20 | Unmarried | 65 | 54.20 |
| Educational Qualifications |  |  | Family Size |  |  |
| Secondary | 8 | 6.66 | <3 | 30 | 25.00 |
| Higher Secondary | 12 | 10.00 | 4-6 | 85 | 70.83 |
| UG | 36 | 30.00 | >6 | 5 | 4.17 |
| PG | 59 | 49.17 |  |  |  |
| Others | 5 | 4.17 | Her |  |  |

The matching qualities of the celebrity with advertisement were analyzed and the perceptions of the consumers are presented in Table-2. The confident of the celebrity in the advertisement, easy identity of celebrity, worthiness and similarity were the main qualitative attributes that match the celebrity with advertisement. Besides, advertisement, product-match, positive image and celebrities' behaviour were also the important factors that influence the matching qualities of the celebrity with advertisement.

TABLE-2 MATCHING QUALITIES OF THE CELEBRITY WITH ADVERTISEMENT

| Attributes | Mean Ranking | Order of Importance |
| :--- | :--- | :--- |
| Similarity | 0.93 | 5 |
| Identity | 1.21 | 2 |
| Confident | 1.34 | 1 |
| Worthy | 1.09 | 3 |
| Brand | 0.98 | 4 |
|  |  |  |
| Scandal | 0.90 | 6 |
| Positive Image | 0.87 | 7 |
| Attractiveness | 0.86 | 8 |
| Product match | 0.84 | 9 |
| Advertising | 0.82 | 10 |

The relationship between matching qualities of celebrity and advertisement, the Spearman rank order correlation was computed and the results are presented in Table-3 The results showed that similarity was positively correlated with identity and confident at one per cent level of significance while similarity was negatively associated with positive image and attractiveness at one per cent level of significance.
The attribute of identity was positively correlated with confident while it was negatively associated with favourite, scandal and positive image at one per cent level of significance and it was negatively correlated with attractiveness at five per cent level of significance. The confidence was positively correlated with brand, favourite and scandal while it was negatively associated with attractiveness, perfect match and celebrity value at one per cent level of significance.

TABLE -3 RELATIONSHIP BETWEEN MATCHING QUALITIES OF CELEBRITY AND ADVERTISEMENT- SPEARMAN RANK ORDER CORRELATION

|  | Similarity | Identity | Confident | Brand | Favourite | Scandal | Positive Image | Attracti veness | Perfect Match | Celebrity Value |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Similarity | 1.00 |  |  |  |  |  |  |  |  |  |
| Identity | $\begin{aligned} & 0.14^{* *} \\ & (0.00) \end{aligned}$ | 1.00 |  |  |  |  |  |  |  |  |
| Confident | $\begin{aligned} & 0.35^{* *} \\ & (0.00) \end{aligned}$ | $\begin{aligned} & 0.29^{* *} \\ & (0.00) \end{aligned}$ | 1.00 |  |  |  |  |  |  |  |
| Brand | $\begin{aligned} & \hline-0.06 \\ & (0.20) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.03 \\ & (0.50) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.14^{* *} \\ & (0.00) \\ & \hline \end{aligned}$ | 1.00 |  |  |  |  |  |  |
| Favourite | $\begin{aligned} & -0.02 \\ & (0.65) \end{aligned}$ | $\begin{aligned} & -0.13^{* *} \\ & (0.00) \end{aligned}$ | $\begin{aligned} & 0.11^{* *} \\ & (0.01) \end{aligned}$ | $\begin{aligned} & 0.09^{* *} \\ & (0.04) \\ & \hline \end{aligned}$ | 1.00 |  |  |  |  |  |
| Scandal | $\begin{aligned} & 0.08 \\ & (0.08) \end{aligned}$ | $\begin{aligned} & -0.14^{* *} \\ & (0.00) \end{aligned}$ | $\begin{aligned} & 0.13^{* *} \\ & (0.00) \end{aligned}$ | $\begin{aligned} & 0.17^{* *} \\ & (0.00) \end{aligned}$ | $\begin{aligned} & 0.14^{* *} \\ & (0.00) \end{aligned}$ | 1.00 |  |  |  |  |
| Positive Image | $\begin{aligned} & -0.13^{* *} \\ & (0.03) \\ & \hline \end{aligned}$ | $\begin{aligned} & -0.13^{* *} \\ & (0.00) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.03 \\ & (0.52) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-0.03 \\ & (0.57) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.06 \\ & (0.18) \\ & \hline \end{aligned}$ | $\begin{aligned} & -.01 \\ & (0.75) \end{aligned}$ | 1.00 |  |  |  |
| Attractive ness | $\begin{aligned} & -0.16^{* *} \\ & (0.00) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-0.11^{*} \\ & (0.02) \end{aligned}$ | $\begin{aligned} & -0.27^{* *} \\ & (0.00) \end{aligned}$ | $\begin{aligned} & 0.02 \\ & (0.65) \end{aligned}$ | $\begin{aligned} & \hline-0.08 \\ & (0.07) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline-0.09^{*} \\ & (0.03) \end{aligned}$ | $\begin{aligned} & \hline 0.06 \\ & (0.17) \end{aligned}$ | 1.00 |  |  |
| Perfect Match | $\begin{aligned} & -0.00 \\ & (0.95) \end{aligned}$ | $\begin{aligned} & 0.00 \\ & (0.99) \\ & \hline \end{aligned}$ | $\begin{aligned} & -0.10^{* *} \\ & (0.03) \\ & \hline \end{aligned}$ | $\begin{aligned} & -0.06 \\ & (0.15) \\ & \hline \end{aligned}$ | $\begin{aligned} & -0.13^{* *} \\ & (0.00) \end{aligned}$ | $\begin{aligned} & -0.03 \\ & (0.52) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.10^{*} \\ & (0.02) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.19^{* *} \\ & (0.00) \end{aligned}$ | 1.00 |  |
| Celebrity Value | $\begin{aligned} & \hline-0.01 \\ & (0.88) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 0.07 \\ & (0.14) \\ & \hline \end{aligned}$ | $\begin{aligned} & -0.17^{* *} \\ & (0.00) \\ & \hline \end{aligned}$ | $\begin{aligned} & -0.20^{* *} \\ & (0.00) \\ & \hline \end{aligned}$ | $\begin{aligned} & -0.17^{* *} \\ & (0.00) \\ & \hline \end{aligned}$ | $\begin{aligned} & -0.15^{* *} \\ & (0.00) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 0.01 \\ & (0.83) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.36^{* *} \\ & (0.00) \end{aligned}$ | $\begin{aligned} & 0.32^{* *} \\ & (0.00) \\ & \hline \end{aligned}$ | 1.00 |

Note: ** indicates significance at 1\% level. *indicates significance at 5\% level.
The brand was positively associated with favorite and scandal while it was negatively correlated with celebrity value at one per cent significance level and the favorite was positively correlated with scandal and it was negatively associated with perfect match and celebrity value at one per cent level of significance.
The scandal was negatively correlated with attractiveness at five per cent level of significance and it was also negatively associated with celebrity value at one per cent level of significance. The positive image was positively correlated with perfect match at five per cent level of significance. The attractiveness was positively correlated with perfect match and celebrity value at one per cent level of significance while perfect match and celebrity value were positively associated at one per cent level of significance.
The relationship between brand features and consumers' perception was analyzed by computing Chi-Square test and the results are presented in Table-4 The results showed that the Pearson Chi-Square value was 0.0196 and the likelihood ratio was 193.365 indicating that the test statistic was significant at five per cent level of significance thus, there was a significant differences among the consumers' perception of the consumers about brand features as noticed by them.

TABLE -4 BRAND FEATURES AND CONSUMERS' PERCEPTION -CHI SQUARE TEST

|  | Value | df | Asymp. <br> Sig. (2-sided) |
| :--- | :--- | :--- | :--- |
| Pearson Chi-Square | 0.0196 | 20 | .000 |
| Likelihood Ratio | 193.365 | 20 | .000 |
| N | 2500 |  |  |

## CONCLUSION

The forgoing analysis indicated that the majority of the consumers ( 64.16 per cent) were the age group of 21-30 years. About 45.80 per cent of the consumers were married while 79 per cent were males. The majority of consumers were postgraduates and about 30 per cent of consumers were under-graduates. The monthly income of consumers were ranging from Rs. $0-5000$ ( 85 per cent) followed by Rs.500010000(8.34 per cent). The results indicated that about 35.84 per cent of consumers occasionally visited the market followed by fortnightly ( 30 per cent) and about 28.33 per cent of the consumers visited the market at least monthly once.
The similarity of celebrity was positively correlated with identity and confident at one per cent level of significance while similarity was negatively associated with positive image and attractiveness at one per cent level of significance. The attribute of identity was positively correlated with confident while it was negatively associated with favourite, scandal and positive image at one per cent level of significance and it was negatively correlated with attractiveness at five per cent level of significance. The confidence was positively correlated with brand, favourite and scandal while it was negatively associated with attractiveness, perfect match and celebrity value at one per cent level of significance.
In overall, the brand features of celebrities help me to remember the brand, creditability of the brand, quality of the brand, advertisement of the brand and price of its products were noticed by the consumers and there was a significant differences among the consumers' perception of the consumers about brand features as noticed by them. The consumer looks for a variety of aspects from the endorsement like the credibility and likeability of the endorser. When one endorser endorses many brands, then the recall of the endorsement depends entirely on the power
of the brand. There are definitely some brands that go unnoticed and the recall for those stands is at a bare minimum. The company can heighten the advertising content because that grabs a special place in the mind space of the consumer. Since celebrities have the impetus to market the product quickly, they have the advertisers running behind them for various benefits including brand credibility, creating interest; thereby, creating a win-win situation.

## REFERENCES

Agrawal,J and Kamakura.W(1995), " The Economic Worth of Celebrity Endorsers: An Event Study Analysis", Journal of Marketing, 59: pp. 56 62.

Basil, Michael(1996), "Identification as a Mediator of Celebrity Effects", Journal of Broadcasting and Electronic Media, pp. 478-495.
Buhr, T A, Simpson, T L and Pryor, B (1987), "Celebrity Endorsers" Expertise and Perceptions of Attractiveness, Likability, and Familiarity ", Psychological Reports, 60:pp. 1307-1309.
Caballero, M.J., Lumpkin, J.R., and Madden, C.S. (1989),"Using Physical attractiveness as an Advertising Tool: An Empirical Test of the Attraction Phenomenon", Journal of Advertising Research, 29 (4):pp. 16-22.
Charbonneau, J. and Garland, R. (2005), "Talent, Looks or Brains? New Zealand Advertising Practitioners' views on Celebrity and Athlete Endorsers", Marketing Bulletin, 16: pp. 1-10.
Dawra, Jogrook and Katyal, Kanupriya (2006), "Brand - Celebrity Conformance", The ICFAI Journal of Brand Management, 3(2): p. 6.
Dyson, A. and Turco, D (1998), "The State of Celebrity Endorsement in Sport", The Cyber Journal of Sport Marketing, 1 (2): pp. 34-35.
Erdogan (1999), "Celebrity Endorsement: A Literature Review", Journal of Marketing Research, 15: pp. 291-314.
Jagdish, A. and Wagner, K.A. (1995), "The Economic Worth of Celebrity Endorsers: An Event Study Analysis", Journal of Marketing, 56(3):pp. 5662.

Kamins, Michael A.(1990), "An Investigation into the 'Match Up' Hypothesis in Celebrity Advertising: When Beauty May be Only Skin Deep", Journal of Advertising 19(1) : p. 413.
Louie, T.A., Obermiller, C. (2002). "Consumer Response to a Firm's Endorser (Dis) Association Decisions", Journal of Advertising, 31( 4): pp. 4152.

Ohanian, R.(1991), "The Impact of Celebrity Spokespersons. Perceived Image on Consumers Intention to Purchase", Journal of Advertising Research, 31(1): pp. 46-54.
Pornpitakpan, Chanthika (2003), "Validation of the Celebrity Endorsers" Credibility Scale Evidence from Asians", Journal of Marketing Management, 19 (1/2): pp.179-195.
Saleem, Farida(2007), "Effect Of Single and Multiple Celebrity Endorsement on Low Involvement and High Involvement Product Advertisement", European journal of social sciences, 5(3): pp.125-132.
Sternthal, Brian, Ruby Roy Dholakia, and Clark Leavitt(1978), "The Persuasive Effect of Source Credibility: Tests of Cognitive Response", Journal of Consumer Research, 4: pp.252-260.
Tripp, C., Jensen, T.D., Carlson, L(1994). "The Effects of Multiple Product Endorsements by Celebrities on Consumers' Attitudes and Intentions". Journal of Consumer Research, 20: pp.535-547.
Walker, M.; Langmeyer, L., Langmeyer, D. (1991), Celebrity Endorser: Do You Get What You Pay For?. The Journal of Services Marketing, 6: pp.35-42.
Zafer Erdogan (2001), Selecting Celebrity Endorsers: The Practitioner's Perspective, Journal of Advertising Research, 41 (3): p 39.

# ROLE OF THE URBAN COOPERATIVE BANKS IN THE AFTERMATH OF GLOBAL FINANCIAL CRISIS: A STUDY WITH REFERENCE TO VELLORE DISTRICT 

E. GNANASEKARAN<br>ASSOCIATE PROFESSOR<br>SCHOOL OF MANAGEMENT<br>C. ABDUL HAKEEM COLLEGE OF ENGINEERING \& TECHNOLOGY<br>MEL-VISHARAM - 632509<br>PROF. (DR.) M. ANBALAGAN<br>HEAD<br>DEPARTMENT OF COMMERCE<br>VOORHEES COLLEGE<br>VELLORE - 632001


#### Abstract

The main aim of our planned economy is the attainment of socialistic pattern of society. The Government of India has undertaken several measures to achieve the above objective within the democratic framework. One of the important measures towards the attainment of the socialistic pattern of society is the development of co-operative movements throughout the country To-day, co-operation has permeated nearly all fields and as a form of business organization, it has been adopted in almost all countries. In order to evaluate the Global financial crisis in India and the manner in which the Urban Co-operative Banks (UCB) responded, it is important to realise that the Urban Co-operative Banks are entrusted with multi-dimensional roles. In this context, this paper makes an attempt to examine the working and financial performance of the UCBs. To make the analysis simpler and presentable the researcher takes Urban Co-operative banks in Vellore District only. The study is based on secondary data and other information provided by the bank in its published annual reports. The relevant data have been collected for the period from 2003-04 to 2008-09. This data have been analyzed with the help of statistical tools like ratios, percentages, averages and trend analysis, chi-square test, and multiple regression analysis.


## KEYWORDS

Socialistic, Permeated, Crisis, Multi-dimensional, NPAs, Performance.

## INTRODUCTION

$\mathfrak{T}$he main aim of our planned economy is the attainment of socialistic pattern of society. The Government of India has undertaken various measures to achieve the above aim within the democratic framework. One of the important measures towards the attainment of the socialistic pattern of society is the development of cooperative movements throughout the country To-day, co-operation has permeated nearly all fields and as a form of business organization, it has been adopted in almost all countries. This confirms the observation of Dr.Favquet, who has stated that "Cooperation is perhaps the most widely distributed system than any other form of organization". As agencies of technical, economic and social progress, cooperatives have been recognized as an important instrument for ameliorating the economic condition of millions of the down trodden masses, both in the developed and the developing countries ${ }^{1}$.
Banking facilities are indispensable for economic progress. The modern banking system routes the surplus funds of the community to the most productive channels. It provides facilities for transfer of funds from one sector of the country to another sector and from one part of the country to another part of the country. Moreover, the development of industry and trade in a country will be impossible without the services of commercial banks.
In order to provide the banking services to the rural masses and lower and middle income groups, the cooperative banks were introduced particularly in rural and semi-urban areas. Liberalization of credit to common men required the application of cooperative principles in the banking sector
The word, 'Cooperation' means working to-gether. The co-operative principles are meant for the poor and down-trodden. The cooperative movement in banking aims at the attainment of common goals through the principles of cooperation. A cooperative institution is a voluntary organization of individuals formed for their common betterment. Thus, several cooperative credit societies with the motto "Self-help through mutual help" have been established.
In India, commercial banks and cooperative banks are the two important wings of the organized banking structure.
The commercial banks confine its operations mostly to the organized, industrial and commercial sectors of the economy. On the other hand, the cooperative banks are primarily engaged in providing banking facilities to the unorganized sectors of the society.
The cooperative banks, being an association of common men, provide credit facilities to the weaker sections of the society namely small craftsmen, small traders, workers, salaried person etc. in urban and semi-urban areas.
The co-operative banking system consists of state and Central Cooperative Banks and the Cooperative Urban Banks. The Urban Cooperative Banks, problem of this research work, are enjoying a strategic position in the Indian cooperative movement. This has been rightly pointed out by the Varde Committee on credit cooperatives in the non-agricultural sector. ${ }^{2}$ The services of the Urban Cooperative Banks are recognized by the Reserve Bank of India because they are the truly democratic organizations managed by the elected representatives of the members.

In recent years, the Urban Cooperative Banks have extended liberal credit facilities to the priority sectors like agriculture, road, water transport, education and exports. They are developing the habit of thrift among the members and other non-members in their area of operation. It was felt by the First Madras Committee on co-operation that "Urban Cooperative Banks have done something to stimulate the habit of thrift and saving among members by a provision made for Savings Deposits, Recurring Deposits, Provident Fund Deposits etc" ${ }^{3}$ In addition, the Urban Cooperative Banks pay one per cent higher rate of interest than the prevailing rate of interest provided by the commercial banks.

## FUNCTIONING OF THE URBAN CO-OPERATIVE BANKS

The functioning of the Urban Cooperative Banks (UCBs) has attracted the poor people, mostly uneducated, due to the following reasons:Courtesy, politeness, prompt and quick service rendered by the employees of UCBs.
Personal attention of UCBs.
Higher rates of interest on deposits.
Minimum waiting time at the counters and proper guidance to the customers with the aid of enquiry counters.
Remittance facilities to the customers.
Taking into account the important role of the UCBs, the aim of the present study is to analyze the financial performance of the Urban Cooperative Bank and to study the need for its operations in the urban area. The study also aims at the analysis of the role played by the Urban Cooperative Bank in mobilizing deposits.

## OBJECTIVES OF THE STUDY

1. To analyze the financial performance of the Urban Cooperative Banks.
2. To review the success of the principles of Cooperation in the banking sector.
3. To know the influence of Urban Cooperative Banks on its members.
4. To assess the attitude of the Urban Cooperative Banks towards the weaker sections of the society.
5. To predict the future growth of the Urban Cooperative Banks.

## METHODOLOGY

The study is based on the collection of both primary data and secondary data. Primary data are to be collected from the members, selected at random and from the Secretary and other officials of the urban banks. Two questionnaires are to be prepared; one set of questionnaire is circulated among the Secretary and other officials of the bank. The other one is executed among the different sections of the shareholders of the Urban Cooperative Banks in Vellore district.
The secondary data, required for the study, are to be collected from the records of the Urban Cooperative Banks and other institutions connected with the banks and from the literature, books, journals, magazines, reports etc.
The collected data are to be administrated through descriptive statistical techniques such as percentage, average etc. The future growth of the bank is to be analyzed with the help of the linear trend method. Evaluation of the financial performance can be done with the tools of financial statement analysis.

## AREA OF OPERATION

The Study is confined to the Urban Cooperative Banks (UCBs), in Vellore District only.

## SCOPE OF THE STUDY

1. This study will pave the way to other industries as a role model in its performance and setting the benchmark as a good success story in the Cooperative banking
2. This study will cater to the needs of the priority sector segments viz. small business establishments, SSI, retail traders, professionals, selfemployed persons and SHGs who will not normally find it easy to have an access to large commercial banks.
3. This study enables a number of underbanked people like artisans, labourers, small business men, retailers, etc. of smaller means who find it difficult to organize themselves in keeping with the requirements of modern times. It is highly desirable on social as well as on economic grounds that members of this class should be enabled to be brought into the banking fold and the UCBs certainly can take a lead into this. 4. It helps the people who are striving for from most of our initiatives of the various developmental projects and programmes.

## REASONS FOR THE SELECTION OF UCBS

(1) The UCBs have been the oldest Banks in the history of the Cooperative Movement in India.
(2) The UCBs have been carrying on the development work of the various sections of the society successfully in the Vellore District concerned for the past nine decades.
(3) No Study has been hitherto undertaken on the performance of the UCBs in Vellore district.

## LIMITATIONS OF THE STUDY

The study of the financial performance of the UCBs is undertaken only for six years i.e. from 2003-04 to 2008-09. This is due to the availability of time and other factors.
Hence, the results of the study cannot be generalized and it may not be taken as a representative analysis for the whole life of the Banks. The area of operation of UCBS is restricted to Vellore district only.

## GROWTH AND PROGRESS

## GROWTH AND PROGRESS OF URBAN COOPERATIVE BANKS IN INDIA

The Table 2.1 shows the progress of the Urban Cooperative Banks in India after the extension of Banking Regulation Act, 1949 to the Cooperative Banks in 1966. As per the Table 2.1 the total numbers of banks were 1106 as on $31^{\text {st }}$ March 1967 and the same number had been
increased to 1162 in 1977 and 1340 in 1987 and 1172 in 1996-97. Out of the total number of 3065 towns and cities in India, only 980 towns and cities were covered by the offices of the Urban Cooperative Banks. ${ }^{18}$

TABLE 2.1 PROGRESS OF URBAN COOPERATIVE BANKS IN INDIA (AS ON 31 ${ }^{\text {ST }}$ MARCH)

| SI.No. | Particulars | $\mathbf{1 9 6 7}$ | $\mathbf{1 9 7 7}$ | $\mathbf{1 9 8 7}$ | $\mathbf{1 9 9 7}$ | $\mathbf{2 0 0 7}$ | $\mathbf{2 0 0 9}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1. | Number of Banks | 1106 | 1162 | 1340 | 1172 | 1092 | 1014 |
| 2. | Owned funds (in Crores) | 58.00 | 114.70 | 780.00 | 744.00 | 720.00 | 734.00 |
| 3. | Deposits (in Crores) | 153.00 | 519.00 | 4800.00 | 20247.00 | 19427.00 | 20848.00 |
| 4. | Working capital (in Crores) | 222.00 | 700.00 | 7000.00 | 21476.00 | 19823.00 | 21543.00 |
| 5. | Loan and advances (in Crores) | 167.00 | 397.17 | 3900.00 | 15185.00 | 14364.00 | 16548.00 |

Sources: 1967 and 2009: A report on UCBS, RBI, Bombay.
2006 to 2007: Fifth meeting report of standing advisory committee on UCBs, RBI, Bombay.
2007 and 2008: "Progress of Urban Co-operative Banking in India"
Booklet by Adhyudaya Co-operative Bank Limited Bombay.
1996-97: Member banks and NABARD, imp. Statement (p.23)
NOTE: It is clear from the Table (2.1.) that the number of branches got reduced from 1340 in 1986-87, 1172 in 1996-97 and 1014 in 2008-09. It is due to the closure of those banks which were incurring loss.
GROWTH AND PROGRESS OF URBAN COOPERATIVE BANKS IN TAMILNADU
The state of Tamil Nadu, Which was formerly called Madras Province, takes pride in initiating the Cooperative movement in this country. In 1892, Fredrick Nicholson was appointed by the Madras Government for the purpose of enquiring the possibility of introducing a system of Agricultural and Land Banks in the Presidency. He submitted his report in two parts in 1895 and recommended for the establishment of "Cooperative Credit Societies". Mr.Nicholson's Report was reviewed by the Government of India and the opinions of local Governments on the Report were considered in 1901 by a Committee under the Chairmanship of Shri Edward Law. Considering the recommendations, the need for a special legislation was felt by Government of India and accordingly the Cooperative Credit Act of 1904 was passed.
The State of Madras had a strong root for the growth of Urban Cooperative credit movement. The Madras Committee on co-operation said that "The Madras Presidency was peculiarly congenial to the birth of urban credit societies in that for many Years, nidhis or indigenous financing associations had been in existence in the towns". 8
The first Urban Cooperative Bank in Tamil Nadu was registered in Kanchipuram in the Chengalpattu District of Madras Presidency on October, 1904, with an initial share capital of Rs. 2005. ${ }^{9}$
The Madras Committee on Cooperation laid strong emphasis on the organisation of non-agricultural credit societies. The Committee said that "The emphasis laid on rural credit did not prevent recognition of the fact that the interest of the small artisans, traders, shop-keepers, industrial employees and others in towns should be protected and facilities provided for reasonable credit to them as well. The money-lender exerts to the same baneful influence over this urban Clients as the village sowcar does over the ryots and suitable machinery is necessary to provide relief to these classes. The Committee advised the Government to devote special attention towards urban banks by way of distinguishing them from other societies". ${ }^{10}$

TABLE -2.2 PROGRESS OF URBAN COOPERATIVE BANKS IN TAMILNADU (AS ON $31^{\text {ST }}$ MARCH)

| SI.No. | Particulars | $\mathbf{1 9 7 5 - 7 6}$ | $\mathbf{1 9 8 5 - 8 6}$ | $\mathbf{1 9 9 1 - 9 2}$ | $\mathbf{1 9 9 6 - 9 7}$ | $\mathbf{2 0 0 6 - 0 7}$ | $\mathbf{2 0 0 8 - 0 9}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1. | Number of Banks | 133 | 135 | 131 | 125 | 117 | 113 |
| 2. | Total membership (in Lakhs) | 12.49 | 27.66 | 17.87 | 13.80 | 11.43 | 12.78 |
| 3. | Paid up Capital (in Crores) | 3.91 | 16.11 | 21.55 | 39.87 | 42.2 | 43.4 |
| 4. | Reserve Fund and other Reserve (in Crores) | 3.74 | 20.31 | 50.16 | 36.86 | 35.3 | 36.7 |
| 5. | Owned Funds (in Crores) | 7.65 | 36.42 | 71.71 | 76.73 | 78.4 | 79.02 |
| 6. | Deposits (in Crores) | 31.30 | 203.87 | 441.00 | 792.20 | 799.67 | 804.73 |
| 7. | Borrowings (in Crores) | 1.60 | 28.16 | 12.16 | 36.59 | 32.54 | 35.32 |
| 8. | Working Capital (in Crores) | 46.98 | 282.07 | 475.75 | 1047.00 | 977.56 | 989.90 |
| 9. | Loans out standing (in Crores) | 29.10 | 208.46 | 324.82 | 626.40 | 712.09 | 745.29 |

Source: Record of the office of the Registrar of Cooperative Societies, Chennai.
NOTE: It is noted from the table 2.2 that the number of Cooperative Banks declined from 131 in 1991-92 to 113 in 2008-09. It is clear that there was a declining trend of Urban Cooperative Banks throughout India.

## URBAN CO-OPERATIVE BANKS IN VELLORE DISTRICT

The district is in the Northern most part of Tamil Nadu. It lies between $11.55^{\prime \prime}$ and $13.05^{\prime \prime}$ of Northern latitudes and $78.20^{\prime \prime}$ to $79.50^{\prime \prime}$ of Eastern longitude. It comprises 38 blocks in 13 taluks scattered over 5 Revenue Divisions. It occupies an area of 12,268 sq. K.m. It is bounded by Chengalpattu District on the East, by Andhra Pradesh on the North, by Dharmapuri District on the West and Thiruvannamalai District on South. The District head quarter is located at Vellore which is on the Madras-Bangalore highway, about 120 K.m. from Madras city.
Both the cooperative sector and the banking sector have been playing a vital role in the economic development of the district. There are 9 Urban Cooperative Banks in the district, out of 125 Urban Banks in Tamil Nadu comprising 7.2 per cent only. These Urban Cooperative Banks organize and bring together middle and working classes in urban and semi-urban areas. Small traders, businessmen, artisans and selfemployed people of this district can improve their income by means of getting loans for various purposes from the urban banks.
More-over, the small scale industries of the district are given proper encouragement by these banks and the intensive mobilisation of savings by the urban banks has contributed to the general economic development of this district.
The First Urban Cooperative Bank in Vellore district was established in Sholinghur, under the name of Sholinghur Urban Co-operative Bank Limited, Sholinghur (SUCB).

TABLE 2.3 DISTRICT-WISE DISTRIBUTION OF UCBS AND THEIR BRANCHES IN TAMIL NADU ( $\mathbf{3 1}^{\text {ST }}$ MARCH 2009)

| Sl. <br> No. | Name of the <br> District | Number of <br> UCBs | Percentage to total <br> number of UCBs | Number of Branches | Percentage to total <br> number of branches |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 1. | Anna | 4 | 3.20 | - | - |


| 2. | Chengalpattu | 6 | 4.80 | 3 | 12.50 |
| :--- | :--- | :--- | :--- | :--- | :--- |
| 3. | Chidambaranar | 7 | 5.60 | 4 | - |
| 4. | Coimbatore | 6 | 4.80 | 4 | - |
| 5. | Chennai | 11 | 2.80 | 1 | 16.67 |
| 6. | Dharmapuri | 3 | 4.00 | - | 4.17 |
| 7. | Kamarajar | 5 | 0.80 | - | - |
| 8. | Kanyakumari | 1 | 8.00 | - | - |
| 9. | Madurai | 10 | 3.20 | - | - |
| 10. | Nilgiris | 4 | -20 | - | - |
| 11. | Vellore | 9 | -20 | - | - |
| 12. | Periyar | 4 | 1.60 | 2 | - |
| 13. | Pudukottai | 2 | 3.20 | - | - |
| 14. | Ramanathapuram | 4 | 8.00 | 3 | 16.6 |
| 15. | Salem | 10 | 9.60 | 3 | - |
| 16. | South Arcot | 6 | 9.20 | - | 12.50 |
| 17. | Tanjore | 12 | 4.00 | 24 | 12.50 |
| 18. | Tiruchirapalli | 12 | 3.20 | - |  |
| 19. | Thirunelveli | 5 |  | - |  |
| 20. | Thiruvannamalai | 4 | Total | 125 |  |

Source: Records of the Office of the Registrar of Co-operative Societies, Chennai.
ROLE OF URBAN COOPERATIVE BANKS IN VELLORE DISTRICT
The Urban Cooperative Banks (UCBs) have to play an important role in meeting the requirements of small traders, weavers, agriculturists and other lower and middle income group of people. Recently, the UCBs have been directed to concentrate their efforts towards the industrial development and other priority sectors of the economy.
In order to achieve the above objectives, the UCBs have to make proper credit planning and available financial resources must be allocated properly for such purpose. The progress of the Urban Cooperative Banks (UCBs) consists a detailed and systematic assessment of its selective variables like share capital, deposits, loans and advances etc. In this chapter, the researcher wants to predict the role of the UCBs in future through time series analysis. Such a growth analysis involves the collection, observation and analysis of data relating to the selective variables. Trend analysis helps in understanding not only the past achievements but also the future aspirations of the UCBs. It leads to the comparison of the actual performance with that of the expected. The researcher has selected the least square method, to measure the trend values of the variables.

## TABLE 2.4 COOPERATIVE URBAN BANKS IN VELLORE DISTRICT

| SI.No. | Name of the Banks | Place |
| :--- | :--- | :--- |
| 1. | Sholinghur Urban Co-operative Bank | Sholinghur |
| 2. | Arakkonam Urban Co-operative Bank | Arakkonam |
| 3. | Ranipet Urban Co-operative Bank | Ranipet |
| 4. | Vellore Urban Co-operative Bank | Vellore |
| 5. | Vaniyambadi Urban Co-operative Bank | Vaniyambadi |
| 6. | Thirupattur Urban Co-operative Bank | Thirupattur |
| 7. | Jollarpet Urban Co-operative Bank | Jollarpet |
| 8. | Gudiyattam Urban Co-operative Bank | Gudiyattam |
| 9. | Palligonda Urban Co-operative Bank | Palligonda |

Source: Records of the Office of the Joint Registrar of Co-operative Societies, Vellore. TABLE 2.5 PROGRESS OF URBAN COOPERATIVE BANKS IN VELLORE DISTRICT (AS ON $31^{\text {ST }}$ MARCH)

| SI. No. | Particulars | $\mathbf{1 9 9 1 - 9 2}$ | $\mathbf{1 9 9 6 - 9 7}$ | $2003-03$ | $2007-08$ | $2008-09$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1. | Number of Banks | 9 | 9 | 9 | 9 | 9 |
| 2. | Number of members | 39,362 | 52,651 | 53,423 | 56,176 | 56,224 |
| 3. | Paid up share capital (in Lakhs) | 73.36 | 152.77 | 186.32 | 199.34 | 199.87 |
| 4. | Reserve and other Funds (in Lakhs) | 149.46 | 213.69 | 243.76 | 26789 | 274.85 |
| 5. | Deposits (in Lakhs) | $2,046.06$ | $4,947.75$ | 5346.76 | 5523.41 | 5698.27 |
| 6. | Borrowings (in Lakhs) | 25.68 | Nil | Nil | Nil | Nil |
| 7. | Loans Issued (in Lakhs) | $2,453.04$ | $4,118.63$ | 4863.12 | 5132,78 | 5243.89 |
| 8. | Loans Outstanding (in Lakhs) | $2,044.20$ | $3,362.25$ | 4123.98 | 4873.54 | 5012.49 |
| 9. | Loans overdue (in Lakhs) | 278.34 | 207.00 | 232.65 | 214.98 | 198.76 |
| 10. | Working Capital (in Lakhs) | $2,186.61$ | $5,187.19$ | 6239.26 | 6549.81 | 6734.68 |
| 11. | Owned Funds (in Lakhs) | 222.86 | 366.46 | 401.34 | 423.67 | 445.91 |

Source: Records of the Office of the Joint Registrar of Cooperative Societies, Vellore District.
From the table, it is ascertained that the number of Cooperative Urban Banks in Vellore District remains constant during the study period. The Coverage of towns and cities by the offices of the Urban Cooperative Banks in this District has been limited. The functioning of larger number of Commercial banks in almost all the towns of this district is responsible for the slow growth of the Urban Cooperative Banks. Moreover, the

Agricultural Credit Societies in the rural areas of this district have been providing the banking services and thereby the scope for establishing new Urban Banks has been limited.

## THE METHOD OF LEAST SQUARES

This is the most popular method of measuring trend. Under this method, the sum of the deviations of the actual values $(\mathrm{Y})$ and the computed values of $Y$ should be treated as zero. This method is useful in predicting the future trend and trend line is treated as the line of best fit. Straight line trend is represented by the following equation

$$
Y e=a+b x
$$

Ye shows the trend values and the values of the two constants ' $a$ ' and ' $b$ ' are to be calculated with the help of the following two normal equations:

$$
\begin{aligned}
& \text { I. } S Y=N a+b S X \\
& \text { II. } S X Y=a S X+b S X^{2}
\end{aligned}
$$

The variable $X$ from any point of time in origin can be calculated very easily when the midpoint ( $X$ ) in the time is taken as the origin because in that case the negative values in the first half of the series balance out the positive value in the second half, so that $S X=0$. Since $S X=0$, the above two normal equations would take the following forms:

$$
\begin{aligned}
& S Y=N a \\
& S X Y=b S X^{2}
\end{aligned}
$$

The values of ' $a$ ' and ' $b$ ' can be determined in the following ways:
Since $\mathrm{SY}=\mathrm{Na}$

| $a$ | $=\frac{S Y}{N}$ |
| ---: | :--- |
| Since $S X Y=b S X^{2}$ |  |
| $b$ | $=\frac{S X Y}{S X^{2}}$ |

When the values of ' $a$ ' and ' $b$ ' are applied to the following normal equation, one can get trend values for any year in future.

$$
\text { i.e. } Y c=a+b X
$$

In this section, the researcher is dealing with the growth trend analysis of some selective variables of the UCBs. The trend analysis relating to some of the variables like Membership, Share Capital, Deposits, Loans and Advances, Profit and Reserve Funds of the UCBs can be studied through the method of least squares (Linear Trend method). With the help of the linear trend analysis of the selective variables for the period 2003-04 to 2008-09, the researcher may be able to predict the future role of the UCBs in Vellore District.

## LINEAR TREND OF THE MEMBERSHIP

The researcher considers the co-operative financial years 2003-04 to 2008-09 and obtains the linear trend of the number of shareholders relating to the UCBs. The following table shows the linear trend of the membership of the UCBs.
Trend values ( Ye ) are to be calculated with the help of the following equation:

$$
\begin{aligned}
\mathrm{Ye} & =a+b \mathrm{X} \\
\mathrm{a} & =\frac{\mathrm{SY}}{\mathrm{~N}} \\
& =\frac{25746}{6}=4291 \\
\mathrm{~b} & =\frac{\mathrm{SXY}}{\mathrm{SX}} \\
& =\frac{3172}{17.5}=181
\end{aligned}
$$

## LINEAR TREND OF MEMBERSHIP



When a graph is drawn to note the actual trend and the linear trend of the variable 'Membership', one can easily compare the actual data with the linear trend and thereby a full knowledge about the said variable can be obtained. The actual data and the trend line are shown in the graph I .
The linear trend is shown in dotted line and the actual trend in thick line. The graph enables to understand the positive growth of the actual and the trend values of the variable 'Membership' during the study period. It was expected that in the year 2009-10, the total number of members in the UCBs would be equal to 4925 . The increase in the membership was nominal, but it should be appreciated in view of the stiff competition faced by the UCBs from the other commercial banks.

## LINEAR TREND OF THE SHARE CAPITAL

The researcher considers the co-operative financial years 2003-04 to 2008-09 and obtains the linear trend of the share capital relating to the UCBs Limited. Following table shows the linear trend of the share capital of the UCBs.
Trend values ( Ye ) are to be calculated with the help of the following equation:

$$
\mathrm{Ye}=\mathrm{a}+\mathrm{bX}
$$

| $a$ | $=\frac{S Y}{N}$ |
| ---: | :--- |
|  | $=\frac{5326}{6}=888$ |
| $b$ | $=\frac{\mathrm{SXY}}{\mathrm{SX}^{2}}$ |
|  | $=\frac{1772}{17.5}=101$ |

LINEAR TREND OF SHARE CAPITAL


When a graph is drawn to note the actual trend and the linear trend of the variable 'Share Capital', one can easily compare the actual data with the linear trend and thereby a thorough knowledge about the said variable can be obtained. The actual data and the trend line are shown in the graph II. The linear trend is shown in dotted line and the actual trend in thick line. The graph enables to understand the positive growth of the actual and the trend values of the variable 'Share Capital' during the study period except in 2005-06. It was expected that in the year 2009-10, the total amount of share capital in the UCBs would be more or less 1,242. It should be noted that in the year 2008-09 itself, the share capital was more to the prediction for 2009-10 viz. Rs. 1,324. The growth shows the popularity of the bank among the people in the study area.

## LINEAR TREND OF THE DEPOSITS

The researcher considers the co-operative financial years 2003-04 to 2008-09 and obtains the linear trend of the deposits relating to the UCBs in Vellore District. The following table shows the linear trend of the deposits of the UCBs.
Trend values (Ye) are to be calculated with the help of the following equation:

$$
\begin{aligned}
\mathrm{Ye} & =a+b X \\
a & =\frac{Y}{\mathrm{~N}} \\
& =\frac{176370}{6}=29395 \\
b & =\frac{\mathrm{SXY}}{\mathrm{SX}} \\
& =\frac{93569}{17.5}=5347
\end{aligned}
$$

## LINEAR TREND OF DEPOSITS



When a graph is drawn to note the actual trend and the linear trend of the variable 'Deposits', one can easily compare the actual data with the linear trend and thereby a full knowledge about the said variable can be obtained. The actual data and the trend line are shown in the graph III. The linear trend is shown in dotted line and the actual trend in thick line. The graph enables to understand the positive growth of the actual and the trend values of the variable 'Deposits' during the study period. It was expected that in the year 2009-10, the total amount of deposits would be more or less Rs. 48,110 as per this trend. The UCBs should try to mobilize more deposits in future. During 2009-10, the UCBs could mobilize the required amount of deposits since the growth rate of deposits during the last six years had been very attractive.

## LINEAR TREND OF LOANS AND ADVANCES OUTSTANDING

The researcher considers the co-operative financial years 2003-04 to 2008-09 and obtains the linear trend of the loans and advances relating to the UCBs in Vellore District. The following table shows the linear trend of the loans and advances of the UCBs.
Trend values ( Ye ) are to be calculated with the help of the following equation:

$$
\begin{aligned}
& Y e=a+b x \\
& a=\frac{S Y}{N} \\
&=\frac{131701}{6}=21950
\end{aligned}
$$

$$
\begin{aligned}
b & =\frac{S X Y}{S X^{2}} \\
& =\frac{63924}{17.5}=3653
\end{aligned}
$$

LINEAR TREND OF LOANS AND ADVANCES


When a graph is drawn to note the actual trend and the linear trend of the variable 'Loans and Advances', one can easily compare the actual data with the linear trend and thereby a thorough knowledge about the variable can be obtained. The actual data and the trend line are shown in the graph IV. The linear trend is shown in dotted line and the actual trend in thick line. The graph expose the positive growth of the actual and the trend values of the variable 'Loans and advances' during the study period. It was expected that in the year 2009-10, the total amount of loans and advances outstanding would be more or less Rs. 34,736, To facilitates more loans and advances in 2009-10. The UCBs was expected to strengthen its own financial resources.

## LINEAR TREND OF THE PROFITS EARNED BY THE BANK

The researcher considers the co-operative financial years 2003-04 to 2008-09 and obtains the linear trend of the amount of profits of the UCBs in Vellore District. The following table shows the linear trend of the profits earned by the UCBs.
Trend values (Ye) are to be calculated with the help of the following equation:
$Y e=a+b X$

$$
\begin{aligned}
a & =\frac{S Y}{N} \\
& =\frac{1528}{6}=255 \\
b & =\frac{S X Y}{S X^{2}} \\
& =\frac{-156}{175}=-9
\end{aligned}
$$

LINEAR TREND OF PROFITS


When a graph is drawn to note the actual trend and the linear trend of the variable 'Profit', one can easily compare the actual data with the linear trend and thereby a complete knowledge about the said variable can be obtained. The actual data and the trend line are shown in the graph V . The linear trend is shown in the dotted line and the actual trend in thick line. The graph enables the researcher to understand the positive growth of the variable except in 1993-94 and in 2008-09. It was predicted that in the year 2009-10, the total net profit in the UCBs would be more or less Rs. 224. The Table 4.5 indicates the decline in profit for the two years i.e. 2005-06 and 2008-09. One of the reasons for the decline was the overdues and the other was the revision of pay scales in 2008-09 for the bank employees.

## LINEAR TREND OF THE RESERVE FUND

The researcher considers the co-operative financial years 2003-04 to 2008-09 and obtains the linear trend of the position of the Reserve Fund relating to the UCBs in Vellore District. Following table shows the linear trend of the Reserve Fund of the UCBs:
Trend values ( Ye ) are to be calculated with the help of the following equation:

$$
Y e=a+b X
$$

SY
$a=N$

|  | $=\frac{3940}{6}=657$ |
| ---: | :--- |
| $b$ | $=\frac{\text { SXY }}{S X^{2}}$ |

$$
1264
$$

$$
=\quad=72
$$

17.5

LINEAR TREND OF RESERVE FUND


When a graph is drawn to note the actual trend and the linear trend of the variable 'Reserve Fund', one can easily compare the actual data with the linear trend and thereby a thorough knowledge about the said variable can be obtained. The actual data and the trend line are shown in the graph VI. The linear trend is shown in the dotted line and the actual trend in thick line. The graph enables the researcher to understand the positive growth of the actual and the trend values of the variable 'Reserve Funds' during the study period. It was anticipated that in the year 2009-10, the total amount of reserve fund in UCBs would be more or less Rs. 909.

## FINDINGS

The financial statement analysis of the Urban Co-operative Banks (UCBs) has shown the significant progress made by the Bank during the study period. The UCBs has powers to organize and bring together the middle and working classes in the urban area of Vellore District. These banks are functioning independently and prospering well because of its efficient management. It is maintaining close and cordial relations with the public by providing credit and deposit facilities. At present, the UCBs has reached a stage where it could be thinking more effectively in helping the development of the other co-operative activities.
The aim of the present study is to analyze the financial assistance of the UCBs to the weaker sections of the society in Vellore District. The UCBs has done a marvelous job of not only providing the banking facilities but also the agency functions to its members. The healthy activities of the UCBs are highly commendable and the bank is in a position to give stiff competition to the other commercial banks in the urban area of Vellore District.

## SUGGESTIONS

Based on the present study, the following suggestions are made:

1. The UCBs restricted its area of operation only to the people of the towns, in Vellore District. The limited area of operation does not permit the bank to carry on its works on a very large scale. Hence, the area of operation can be extended according to the progress achieved by the bank and the strength and financial stability of the Institution. It is suggested that the UCBs can be given freedom to fix its own area of operation. Such a wider area of operation will enable the bank to cater to the needs of a large number of salary earners, artisans, small businessmen and other weaker sections of the society.
2. The study reveals that the UCBs are not having locker facility to attract more customers. It is suggested that the bank should extend facilities and customer services such as provision for locker facilities, collection of bills, advisory services etc.
3. The UCBs Limited is in need of support from the State and Central Governments and from the Reserve Bank of India. The State Government should actively involve itself in the development of urban banks and should set up a cell to attend to the needs and problems of the urban bank. It must make necessary provision in annual plans for share capital assistance to the banks.
4. It is noteworthy to mention that the pigmy deposit and mini deposit schemes are the special features of the UCBs. It is suggested that the voluntary attitude of the sub staff in the mobilization of such deposits may be rewarded suitably. This in turn may strengthen the saving habits of the public at large.
5. This bank has to compete with the commercial banks and other financing institutions to attract customers. Hence, the productivity and efficiency of the bank depend upon the motivation of the staff. The employees of the bank must be given proper incentives and in addition must be given suitable training so that quality of the staff will move along with the current banking development.

## CONCLUSION

To sum up, the study aims at the performance appraisal of the UCBs Vellore District, during the period 2003-04 to 2008-09 and it is concluded that the overall performance of the bank is good. It may be said that the UCBs are providing efficient customer service to the residents of the Vellore District. The overall past performance of the UCBs enables the researcher to come to the conclusion that the banks has a large scope for further development and expansion in future.

## REFERENCES

1. Annual Report, (20-9-2010), "Urban Co-operative Banks, Vellore District".

Business Line, (September 18, 2010), "Co-op Bank seeks nod for shares with premium", Para 2.
Campbell, (1986), "Practical Co-operation in Asia and Africa", p. 95.
Daily Thanthi, (30-5-2010), "Modernization of Urban Co-operative Banks", Vellore. Para 2
Darling, IM (1992), Punjab Peasant in prosperity and debt, p.150.
Dr. Mamoria, C.B (1983), "Rural Credit and Agricultural Co-operation in India", Allahabad, Kitab Mahal, Sec. Il p.p. 4-5.
Fourth Five - Year Plan, p-23
Government of India, (1963), "Report of the group on Credit Co-operatives in the non-agricultural sectors" New Delhi.p.5.
Government of Madras, (1940), "The Report of the Committee on Co-operative", Madras.
International Encyclopaedia of social sciences, (1972), Volume -3, p. 384.
Mathur, B.S. (1975),"Co-operation in India", Sahitya Bhavan, Agra. pp.269-270.
Nakkiran, S.(1982)," Urban Co-operative Banking in India", Rainbow publications, Coimbatore. p. 21
RBI, "Report of the committee on UCBs", (1979),. Bombay. P.7-8.
S. Chand \& Co, (1983), "Banking Practice and Law" New Delhi. p. 25.

Smith Louis, P.F,(1961), "The Evolution of Agriculture Co-operation" p.151.
Sami Uddin \& Mahfoozur Rahman, "Co-operative Sector in India", New Delhi
www. Businessline.in/webextras.
Webster Universal Dictionary p. 308.


# RISK ASSESSMENT OF DEFAULT BEHAVIOUR OF HOUSING LOANS OF A PUBLIC SECTOR BANK (AN EMPIRICAL STUDY) 

SHUBHA B. N<br>FACULTY (FINANCE), DEPARTMENT OF M.B.A. BMS COLLEGE OF ENGINEERING BANGALORE - 560019<br>DR. (MRS.) S. GOMATHI<br>MEMBER, BOARD OF STUDIES, MADRAS UNIVERSITY<br>PROFESSOR (HUMAN RESOURCE), VIT BUSINESS SCHOOL<br>VIT UNIVERSITY<br>VELLORE - 632014


#### Abstract

This paper aims at understanding the repayment behvaiour of borrowers of a public sector bank in Banaglore. The study uses the housing loan borrowers who were granted loan during 1999-2008. The primary focus of this paper is to examine the default behavior of defaulters and non defaulters by considering the socio demographic profiles and financial characteristics. The study adopts the Logistic regression model to estimate the likelihood of housing loan default. The result of the study shows that probability of default is higher among male borrowers and and those who belonged to the business class. Apart from this the probability of default decreases with increase in income, net worth. The default risk is higher with longer maturity period. The result also shows that EMI to income ratio is positively correlated to default risk indicating an increase in this ratio increasing the probability of risk of borrowers. The Nagelkerke $R$ square is more than $70 \%$ and $73.6 \%$ of the variation in the dependent variable, default risk have been explained by the independent variables; socio demographic and financial variables .


## KEY WORDS

Default risk, Socio demographic variables, Financial variables, Defaulters, Non defaulters.

## INTRODUCTION

$\mathbb{C}$he retail credit market poses a special challenge to practitioners, regulators \& academics due to its unique feature as compared to their corporate counter parts. Retail lending provides credit to small, typically unrated borrowers and often not syndicated unlike the corporate loans. The corporate credit market deals with large, negotiated loans to borrowers who often have credit ratings. These large loans have a secondary market that does not exist for retail bank loans. Hence the risk characteristics are not the same for both so that the parameters used for wholesale loan markets can be used reliably for retail markets (Saunders and Allen, 2002). Hence understanding the risk profile of retail loans could be interesting in building the credit risk models for the same. In India the growth in retail loans has gained significant momentum after the financial sector reform in 90 's. Of the components of retail credit, the growth in housing loans was the highest in most years and remained at extremely high levels right up to 2006-07. As a result, the share of housing finance in total credit rose from five per cent in 2001-02 to 12 per cent in 2006-07 and was still at 10 per cent in 2009-10(Chandrasekhar \& Ghosh, 2010). The growth in availability of credit couls be appreciable on one hand while on the contrary it also brings with it element of risk. Also among the retail loans, mortgage loans are a highly-secured asset class making the segment inherently attractive, driving intense competition. In order to increase volume in this environment the lenders are using various measures to make it attractive by lengthening the tenure, offering higher loan-to-value ratios and sometimes using direst sales agents to source new business. The increased access and availability of credit may result in diluting the credit quality. One of the primary aims of this paper is to estimate the likelihood of default risk associated with socio demographic and financial factors for the housing loans. The research examines the socio demographic issues including the level of education, type of occupation, no. of dependents and financial variables like income, net worth, EMI and others and their influence on the risk of default.

## THEORETICAL BACKGROUND AND EMPIRICAL OVERVIEW

There are two alternative views relating to housing loan mortgage default behaviour: The equity theory of default that is based on CLTV ratio which measures the equity position of the borrower as an important factor impacting default decisions, the default mortgage tend to take place when the mortgagor is unable to pay the loan obligation and the market value of the property is currently less than its original purchase price as proposed by Vasanthi and Raja Peter (2006). On the other hand, ability-to-pay theory of default (the cash flow approach), considers current debt servicing ratio (CDSR), defined as the monthly repayment obligations as a percentage of current monthly income, which captures the repayment capability of the borrower, as a critical factor in accounting for default Jackson and Kasserman (1980).
The models proposed by Straka (2000) and Wheaton et al(2001) have expressed default as the end result of some trigger event, which makes it no longer economically possible for the borrower to continue in his status. Negative equity makes its advantageous to default rather than forbearance. There are several empirical studies on credit risk management which indicates the socio demographic factors and financial to have significant impact on default risk; The study by Roszbach K. and Jacobson T. (1998) shows that gender is significant variable in predicting the default behaviour and reveals that a borrower being a male significantly decreases the chance of being granted a loan and crook (1996) study shows that borrower with more education increases the demand for credit as more education enables a potential borrower to be more capable to forecast his/her payback ability, helping the decision of lender. The result also shows the probability of default decreases with age that is similar to Jappelli (1990) also indicating larger the family size the probability of default is more. Sexton (1977) analyzes the credit risk in
two types of American families: (i) low-income families; (ii) high-income families. The numerical results indicate that married couples and homeowners tend to pay their debt on time. On the other hand, credit default risk decreases when the income and age increase. Ozdemir \& Boran (2004) investigates the payment performance of borrowers using the financial \& demographic variables and reveals that longer the maturity time, higher is the interest rate \& higher would be the credit default risk. Bandyopadhhyay and Saha (2009) empirically examine the functional role of various micro and macro economic as well as situational factors that determine residential housing demand and risk of borrower default in India. The empirical results shows that borrower defaults on housing loan payments is mainly driven by change in market value of the property vis-à-vis the loan amount and EMI to income ratio. A small increase in market value of the property vis-à-vis the loan amount raises the odds of default. Similarly, any change in EMI to income ratio raises the delinquency chance as well. The borrower characteristics like marital status, employment situation, regional locations, city locations, age profile and house preference act as default triggers. Vasanthi Peter and Raja Peter (2006) identifies income, financial, demographic characteristics, and locational factors as critical determinants of future risk for Australian housing loans. The results of the logistic regression show that the income variable is highly significant which means that lower income is one of the major contributory factors for default. These reviews have become basis for identifying the research question as under.

## THE RESEARCH QUESTIONS THAT ARE EXAMINED IN THIS PAPER

1. Do Socio-demographic variables such as Gender, Occupational status, Age, educational level, experience in job, number of dependents, residential status affect the risk of default?
2. Do financial variables such as income, Net worth, Interest rate, EMI influence the default risk?

## A LOGISTIC MODEL FOR RISK MEASUREMENT

In this paper, a logistic regression model of housing loan default is estimated. From the perspective of the lenders, predicting the future loan delinquency is important. As discussed earlier, there are number of financial and socio demographic factors that are systematically used to assess the creditworthiness of the borrowers. For this study a dummy variable L1 is flagged to measure the risk of default. The dependent variable credit risk is 0 if the borrower repays its loan on schedule and 1 if the borrower misses the payment for more than 90 days.

TABLE 1 BELOW GIVES A DESCRIPTION OF THE VARIABLES USED IN THE STUDY AND ITS DESCRIPTION

| Variables | Description |
| :--- | :--- |
| L1 = loan default | 0 if borrower has repaid as scheduled; 1 otherwise (dependent variable) |
| X1 $=$ Gender | 1 if Male; 0 if female. |
| X2 $=$ Age of the borrower | Age of the borrower at the time of loan (as indicated by the data base) |
| X3 $=$ Occupation | 1 if Business, 2 if MNC, 3 if Private, 4 if Academics, 5 if public sector and 6 if Government |
| X4= No. of dependents | As indicated in the database; |
| X5 $=$ Experience in job | As indicated in the database; |
| X6=Residential status | 1 if rent, 0 if own |
| X7=Income | As indicated in the database |
| X8=Net worth | As indicated in the database |
| X9 $=$ Maturity | As indicated in the database |
| X10=Loan amount | As indicated in the database |
| X11= Interest | As indicated in the database |
| X12= Loan amount to income ratio | Ratio of loan amount to income |
| X13= EMI to income ratio | Ratio of monthly payment to income |

The logistic equation can be written as:
$\mathrm{L} 1=\beta 0+\beta 1$ gender $+\beta 2$ age $+\beta 3$ occupation $+\beta 4$ No. of dependents $+\beta 5$ Experience $+\beta 6$ Residential Status $+\beta 7$ Income +
$\beta 8$ Net worth $+\beta 9$ Maturity $+\beta 10$ loan amount $+\beta 11$ Interest $+\beta 12$ Loan amount to income $+\beta 13$ EMI to income $+e 2$

## RESEARCH DESIGN

The researcher has chosen a public sector bank in Bangalore for the study. This study uses the data of housing loan borrowers from the housing loan section of the bank. The data includes loans granted during 1999-2008. In order to preserve the confidentiality, the name of the bank is not disclosed in the study. The borrowers are classified into two groups. The first group is those who have not made their payment for $>90$ days and are called "defaulters" and the second group are those borrowers who are regular payers and called "non defaulters"". Thus the sample of 219 housing loan borrowers includes 173 defaulters and 45 non defaulters. The sampling technique is based on purposive random sampling. The researcher collected the data by gathering information from the loan applications of the borrowers. The variables were identified through the risk rating score sheet used by the bank. The research design is descriptive and inferential in nature and employs logistic regression for analysis. Various goodness of fit measures such as $-2 \log$ likelihood, Pseudo $R^{2}$, Cox and Snell $R^{2}$, and Hosmer and Lemeshow values are used to asses model fit. To test the significance of its coefficients that the odds ratio does not change and the probability is not affected; logistic regression uses the Wald statistic.

## DISCUSSION OF RESULTS

The study has 78 per cent (173) of the borrowers belonging to default accounts and the remaining 33 per cent (45) of the borrowers belonging to non default accounts. For socio-demographic variables, the average age of the borrowers is 43 years, $71.3 \%$ of them were married and were mostly business people followed by Government employees, private sector and MNC's. Also about $62.7 \%$ of the borrowers had $3-4$ members as dependents. For financial variables, the average annual income is Rs.1.7 lakhs, average Net worth is Rs. 11.5 lakhs, Average maturity is 12.5 years and the loan amount/ size is Rs. 10 lakhs. Interest rate changes from $7.5 \%$ to $15 \%$ and average EMI is Rs. 9500 .

The analysis is done using Logistic regression which is similar to multiple regression with respect to measures of residuals, residual plots and measures of influence. But unlike multiple regression, logistic regression maximizes the likelihood that an event will occur (Vasanthi peter and Raja peter (2006)).

TABLE 2A: SHOWS THE RESULTS OF LOGISTIC REGRESSION WITH WALD SIGNIFICANCE

|  | B | S.E | Wald | df | Sig | Exp(B) | 95.0\% C.I for $\operatorname{Exp}(\mathrm{B})$ |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  | Lower | Upper |
| Gend(1) | -2.621 | 0.720 | 13.253 | 1 | 0.000 | 0.073 | 0.018 | 0.298 |
| Age | -0.029 | 0.039 | 0.560 | 1 | 0.454 | 0.971 | 0.899 | 1.049 |
| occupn |  |  | 11.965 | 5 | 0.035 |  |  |  |
| Occpn(1) | -4.182 | 1.413 | 8.755 | 1 | 0.003 | 0.015 | 0.001 | 0.244 |
| Occpun(2) | -0.555 | 0.823 | 0.452 | 1 | 0.502 | 0.574 | 0.114 | 2.897 |
| Occpn(3) | 2.389 | 1.356 | 3.103 | 1 | 0.078 | 10.907 | 0.764 | 155.71 |
| Occpn(4) | 1.607 | 4.729 | 0.115 | 1 | 0.734 | 4.986 | 0.000 | 52883.6 |
| Occpn5 | -1.153 | 0.845 | 1.862 | 1 | 0.172 | 0.316 | 0.060 | 1.653 |
| Depdt | -0.624 | 0.266 | 5.488 | 1 | 0.019 | 0.536 | 0.318 | 0.903 |
| expe | -0.009 | 0.048 | 0.038 | 1 | 0.846 | 0.991 | 0.902 | 1.088 |
| income | -0.218 | 0.106 | 4.217 | 1 | 0.040 | 0.804 | 0.653 | 0.990 |
| Net worth | -0.023 | 0.011 | 4.630 | 1 | 0.031 | 0.977 | 0.957 | 0.998 |
| Maturity | 0.265 | 0.099 | 7.217 | 1 | 0.007 | 1.304 | 1.074 | 1.582 |
| Res status | -0.976 | 0.705 | 1.915 | 1 | 0.166 | 0.377 | 0.095 | 1.501 |
| Loan amt | -0.208 | 0.111 | 3.489 | 1 | 0.062 | 0.812 | 0.653 | 1.010 |
| Loaninc | -0.230 | 0.372 | 0.382 | 1 | 0.537 | 0.794 | 0.383 | 1.648 |
| Emi | 0.000 | 0.000 | 0.446 | 1 | 0.504 | 1.000 | 1.000 | 1.000 |
| Emiinc | 0.710 | 2.542 | 0.078 | 1 | 0.780 | 2.034 | 0.014 | 296.403 |
| Int | -0.160 | 0.213 | 0.561 | 1 | 0.454 | 0.852 | 0.561 | 1.295 |
| constant | 8.569 | 3.562 | 5.787 | 1 | 0.016 | 5265.0 |  |  |

The Wald estimates gives the importance of the contribution of each variable in the model. The higher value indicates the importance of the variable towards default risk. The results of the logistic regression show that gender is highly significant (with $B=-2.621, p=0.00$ ) indicating the default is male borrowers. Another important factor in determining default is occupation and default risk is more with business class with ( $B=-$ $0.4182, p-0.00$ ) Apart from this the other significant variables are No. of dependents (with $B=-0.624, p=0.019$ ), Income (with $B=-0.218, p=0.040$ ), Net worth (with $B=-0.023, p=0.031$ ), Maturity ( $B=0.265, p=0.002$ ), Loan amount (with $B=-0.230, p=0.062$ ) and residential status ( $B=-$ $0.976, p=0.166)$. This implies that the probability of default is higher among male borrowers and business class people, Also probability of default decrease with increase in income, net worth. The default risk increases with increase in maturity period.
As we see from the model summary table (Table 2B), tests such as -2log likelihood, Cox and Snell R square and Nagelkerke R square are reasonably good. It is seen that Nagelkerke $R$ square is more than $70 \%$ and $73.6 \%$ of the variation in the dependent variable, default risk have been explained by the independent variables.

TABLE 2A: MODEL SUMMARY FOR TABLE 2A

| -2 Log likelihood | Cox \& Snell R square | Nagelkerke R square |
| :--- | :--- | :--- |
| 91.273 | 0.488 | 0.736 |

The classification accuracy of the logistic model is presented in table 2 C. The classification table shows percentage of correct prediction is $90.8 \%$ overall and $95.8 \%$ for "yes" and $74.5 \%$ for "no" default risk. Hence it can be concluded that model classification is statistically accepted and is not due to chance factor.

TABLE 2C: CLASSIFICATION TABLE FOR TABLE 2A

| L1= Loan default Varaible | L1= Loan default Varaible |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Yes default risk 1 | No default risk | 0 | Percentage correct |
|  |  |  | 9 |  |
|  | Yes default risk 1 | 160 | 7 | 74.5 |
|  | No default risk 0 | 13 | 38 | 90.8 |
| Overall percentage |  |  |  |  |

## IMPLICATION AND CONCLUSION

The primary contribution of the research delineated in this paper is to demonstrate the importance of borrower specific characteristics in determining the default behaviour of housing loan repayment. With the retail lending growing significantly after the financial sector reforms
the growth in housing market also has been noticeable. Growing competition and relaxed regulatory norms on housing loans has provided a substantial incentive to the lending institutions in India resulting in aggressive practices to be followed to attract the borrowers which could include softening the collateral requirement, lengthening the tenure, using direct selling agents to source business and others. This surge in supply could attract several borrowers with unpalatable credit histories and very low margin. Understanding the interplay between various factors driving housing sector demand and their link with borrower default will help the lenders and policy maker in fine tuning their lending policy better.
The study uses the housing loan borrowers who were granted loan during 1999-2008 to observe the repayment behaviour. The researcher considers the socio demographic and financial variables and the result of the study shows that probability of default is higher among male borrowers and business class people, Also probability of default decrease with increase in income, net worth. The default risk increases with increase in maturity period. The future research could aim at considering other factors like locational and macro economic factors to check the influence on default behaviour.

## REFERENCE

[1]ARINDAM BADYOPADYAY\& ASISH SAHA 2009., "Factors driving Demand and default risk in Residential Housing Loans: Indian Evidence" National Institute of Bank Management. MRPA Paper No. 14352.
[2]AHMET E. KOCAGIL \& EBRU DEMIR., December 15, 2006. "Empirical Examination of drivers of default Risk in Prime Auto Loans". Fitch Quantitative Financial Research (QFR) Special Report.
[3]BANASIK J,et al (1999)., " Not if but when will borrowers default". Journal of Operational Research Society 50, Pg.1185-1190.
[4]BERGER A.N. \& G. F. UDELL (1990)., "Collateral, Loan Quality, and Bank Risk" .Journal of Monetary Economics, Vol. 25, pg. 21-42
[5]CROOK (1996). "Credit constraints and US households"., Applied Financial Economics, Vol. 6, Pg. 477-485.
[6]Gabriel Jimenez \& Jesus Saurina ( 2003)., "Loan characteristics and credit risk.". Federal Reserve Bank of Chicago, Journal Proceedings, Pg. 170-183.
[7]HAND D.J. (2001)., "Modelling consumer credit risk", IMA Journal of Management Mathematics, 12 (2), Pg. 139-155.
[8]JAPPELLI T. (1990)., "Who is Credit Constrained in the U.S. Economy? "Quarterly Journal of Economics, Pg. 219-234.
[9]KASPER ROZBACH (2003)., "Bank lending policy, credit scoring and survival of loans". Review of Economic \& Statistics, Pg.946-958.
[10]ÖZDEMIR \& BORAN (2004)., "An Empirical Investigation on Consumer Credit Default Risk". Turkish Economic Association. Working Paper Series 2004/20.
[11]SEXTON D.E. (1977)., "Determining Good and Bad Credit Risks Among High and Low Income Families". Journal of Business, 236-239.
[12]VASANTHI PETER \& RAJA PETER (2006)."Risk Management Model: an Empirical Assessment of the Risk of Default". International Research Journal of Finance and Economics, Vol. 1 Pg 42-56.
[13]VANDELL, K., BARNES, W., HARTZELL, D., KRAFT, D., \& WENDT, W. (1993)."Commercial mortgage defaults: Proportional hazards estimation using individual loan histories". Journal of the American Real Estate and Urban Economics Association 21 (4), 451-80.
[14]WALLER N. G. (1988). "Residential mortgage default: A clarifying analysis". Housing Finance Review 7, 321-333.

# DYNAMICS OF IPO - A STUDY WITH REFERENCE TO SELECTED CORPORATE SECTORS 

DR. P. NATARAJAN<br>PROFESSOR<br>DEPARTMENT OF COMMERCE PONDICHERRY CENTRAL UNIVERSITY PUDUCHERRY

S. BALAJI<br>RESEARCH SCHOLAR DEPARTMENT OF COMMERCE PONDICHERRY UNIVERSITY PUDUCHERRY


#### Abstract

Initial Public Offering is the first sale of corporation's common shares to public investors While going for IPOs company have to abide by several regulatory norms. The performance of Initial Public Offerings' in India, during the period from April 2003 to October 2008 have been analyzed using Multiple regression, skewness and t-test. This paper is aimed at evaluating how the IPOs under different sectors in India perform during the first few days of listing as well as in the short-run (three months). The study also extends the IPO literature on influence of issue size and listing delay on initial trading activity (initial return on day1). Forty four IPOs from five major sectors viz. Power, Pharmaceuticals, Infrastructure, IT and Banking \& Finance were taken for the study. The IPOs were classified as very cold, cold, hot and very hot based on their price performance. Majority of IPOs under all sectors have performed well in near short-term and short-term. Also, initial returns from most of the IPOs are symmetrical. Moreover, IPOs with 'very cold' and 'cold' condition on listing day are performing well in short-term and IPOs with 'hot' and 'very hot' condition have exhibited consistency in giving positive initial return and the initial return after 3 months have been much higher.


## KEYWORDS

Price performance, major sectors, different categories.

## INTRODUCTION

Jnitial Public Offering (IPO) (M. C. Kuchhal) is the first sale of a corporation's common shares to public investors. The main purpose of an IPO is to raise capital for the corporation.
The performance of IPOs in India, during the period from April 2003 to October 2008 have been analyzed. Forty four IPO's from five major sectors viz. Power, Pharmaceuticals, Infrastructure, IT and Banking \& Finance have been taken for the study. The returns for the first few months of trading are calculated and accordingly they are categorized as very cold, cold, hot and very hot IPO's. Average day-wise returns from IPOs under these four groups are calculated and compared.
The suitability of an IPO depends upon:

- The general stock market condition.
- The industry market condition.
- The frequency and size of all IPO's in the financial cycle.
- The frequency and size of industry IPO's in the financial cycle.

There is a 3-6 months lead time between starting the IPO process and going public. So, the firm needs to forecast the market conditions 3-6 months later. Luckily, for such short-run purposes, stock returns behave almost as if they follow a random walk. So, it is not a bad guess to make decisions about going public based on current stock market conditions.

## OVERVIEW OF THE SELECTED SECTORS

The IPOs for the present study has been taken from five different sectors for comparison of performance across these categories. Hence an overview of these sectors in Indian economy ['Survey of Indian Industry (2005\&2006) published by The Hindu'] has been outlined below.
PHARMACEUTICALS - The Indian pharma industry ranks among the top 15 drug manufacturing countries. Currently the Indian pharma market exceeds $\$ 4$ billion (Rs. 18,000 crores). The industry's turnover is estimated at $\$ 5.5$ billion (Rs. 25,000 crores) and an annual growth rate of 8-9 per cent and is expected to reach \$25 billion by 2011.
Its products and performance affect the healthcare of the population and consequently the country's economic development. The evolving environment in the global pharmaceutical sector provides major opportunities as well as challenges for India.
INFRASTRUCTURE - Infrastructure is the back bone of the economy and a key driver of growth. Despite various initiatives and reforms taken so far in India improvements are still required in the areas of infrastructure. With proper support the Indian construction industry will become a global force to reckon with like the software industry.
POWER SECTOR - There exists a link between economic growth and per capita consumption of electricity. India's power sector has shown remarkable growth from about 1400 MWs in 1947 to $1,12,058 \mathrm{MWs}$ by March 2004. The gross generation has increased over hundred fold from 5 billion units to 530 billion units a year.

INFORMATION TECHNOLOGY - IT impacts the national economy in a number of ways. It forms the crux of critical sunrise industries such as ITES, biotechnology, pharmaceutical research and nanotechnology. The IT industry should be developed as a priority sector with a stable policy environment.
BANKING \& FINANCE - The banking industry has been experiencing intense competition since the opening up of the economy and the entry of foreign banks into the Indian market. Indian banks have responded positively by upgrading their services and promoting themselves aggressively in the market.

## LITERATURE REVIEW

Empirical results of a study carried out by Kevin Keasey and Helen Short (1997) showed that the publications of earnings forecast and the underwriting of the issue has little impact upon how the market values an IPO. The prospectus information is useful in the aftermarket over a short window of a year and to some extent in predicting subsequent survival or failure, although the value of this information declines rapidly with time (Harjeet and Richard, 2003). Also a high level of stock retention by insiders increases an IPO firm's survival rate in the public market (Stavros and Gijoon, 2004).

## NEED FOR THE STUDY

Investors demonstrate a growing tendency to invest more in stock markets. Analysts are fervently trying to predict the future value of the stocks through the efficiency of the board of management, market analysis, performance and industry reviews and so on. The first day trading of the IPO's and their initial performance has a considerable impact on its future trading volume. The initial trading of IPO's might also have an impact on the trading of other shares in the same industry. Hence the impact of IPO's are spread wide throughout the stock market. It determines not only the future of the company's shares, but also the prices of other shares in the same trading sector.

## OBJECTIVES OF THE STUDY

The study aimed to

* Analyze the performance of IPO's in the aftermarket, based on the returns of the first few months of trading.
* Evaluating the extent of impact of listing delay and issue size on initial returns.
* Categorization of IPO's under very cold, cold, hot and very hot classifications based on their price performance.


## METHODOLOGY AND SAMPLE

The principle source of data for the study is the Daily Stock Prices drawn from the "National Stock Exchange" and NSE NIFTY figures. They were accessed from database of NSE website and Centre for Monitoring Indian Economy (CMIE) and other URL's of financial broking firms such as Geojit. For the purpose of evaluating the performance of IPOs, the overall period of study ranges from April 2003 to October 2008.
Multiple regression technique has been used for finding out the effects of listing delay and issue size on the initial day returns. Skewness has been used to ascertain the normality or abnormality of the distribution of returns. $\mathrm{T}^{\prime}$ test has been applied to compare the mean initial returns across various sectors. Other statistical tools such as arithmetic mean, median and standard deviation are also used.

## HYPOTHESES

For analysis of the performance of Initial Public Offering in India, the following hypothesis tests were conducted.

1. There is no significant difference between mean initial returns from IPO's of different sectors of the market.
2. There is no significant effect of listing delay on day one return.
3. There is no relationship between Issue size and listing day return.
4. Listing day returns from IPO's is independent of the sectors.

## TOOLS EMPLOYED

IPOs of 44 companies from 2004 to 2008 with 10 IPOs each under power and infrastructure, 5 IPOs under pharmaceutical, 11 under IT and 8 under banking \& finance sectors were studied. The short-term returns, distribution of mean returns, normality of distribution and the impact of listing delay and issue size on the initial returns from IPOs under each sector are analyzed.
The mean initial returns on first listing day (day 1) has been compared between sectors using t-test to find out if there is any significant difference between mean initial returns of various sectors. Evaluation of the extent of impact of listing delay and issue size on initial returns has been analyzed using Multiple Regression technique. The influence of sectors or industries on individual IPO's has also been analyzed. The results of the analysis with detailed discussion are followed hereunder.

## ANALYSIS, INTERPRETATION AND FINDINGS

## I. (A) OFFER PRICE OF IPOS

The mean, median and standard deviation of IPO offer price, under the five different sectors have been calculated in table 1 . The skewness value of the offer price has been worked out to ascertain the normality of the distribution.
From the table 1, it is understood that the average offer price of selected IPOs under power sector is Rs. 120.30 with a median of 61.00 and a standard deviation of 161.31 . The minimum and maximum offer prices are Rs. 15.00 and Rs. 510 respectively.

TABLE 1: DESCRIPTIVE STATISTICS FOR OFFER PRICE OF IPOS', ALLOCATION OF IPOS' AND SIZE OF THE IPOS' UNDER SELECTED SECTORS DURING THE PERIOD FROM 2004 TO 2008 (IN RUPEES)

| Company | N | Mean | Median | Standard Deviation | Min. | Max. | Skewness |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  | Value | 2 SE of Skewness |  |


| Power |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Offer Price of IPOs' | 10 | 120.3 | 61 | 161.31 | 15 | 510 | $2.05{ }^{\text {@ }}$ | 1.55 |
| *Allocated of IPOs' | 10 | 2023 | 879.08 | 2714.97 | 82.76 | 8658.3 | $1.95{ }^{\text {@ }}$ | 1.55 |
| **Size of IPOs' | 10 | 1215 | 483.73 | 1672.49 | 81.25 | 5368.2 | $2.06{ }^{\text {@ }}$ | 1.55 |
| Infrastructure |  |  |  |  |  |  |  |  |
| Offer Price of IPOs' | 10 | 372.1 | 295.5 | 237.46 | 110 | 685 | 0.34 | 1.55 |
| *Allocated of IPOs' | 10 | 186.7 | 42.77 | 358.69 | 27.5 | 1173.2 | $2.83{ }^{\text {@ }}$ | 1.55 |
| ${ }^{* *}$ Size of IPOs' | 10 | 391.9 | 210.39 | 433.5 | 50.75 | 1290.5 | 1.37 | 1.55 |
| Pharmaceutical |  |  |  |  |  |  |  |  |
| Offer Price of IPOs' | 5 | 212.6 | 175 | 125.75 | 68 | 380 | 0.4 | 2.19 |
| *Allocated of IPOs' | 5 | 45.29 | 34.34 | 28.21 | 25.77 | 95 | 2.07 | 2.19 |
| **Size of IPOs' | 5 | 77.07 | 64.6 | 29.91 | 44.87 | 117.86 | 0.57 | 2.19 |
| Information Technology |  |  |  |  |  |  |  |  |
| Offer Price of IPOs' | 11 | 227.7 | 120 | 234.2 | 64 | 850 | $2.21{ }^{\text {@ }}$ | 1.48 |
| ${ }^{*}$ Allocated of IPOs' | 11 | 188.2 | 103 | 223.41 | 30 | 693 | $1.79{ }^{\text {@ }}$ | 1.48 |
| **Size of IPOs' | 11 | 590 | 135 | 1373.99 | 27 | 4713.5 | $3.26{ }^{\text {@ }}$ | 1.48 |
| Banking \& Finance |  |  |  |  |  |  |  |  |
| Offer Price of IPOs' | 8 | 78.88 | 71.5 | 51.09 | 19 | 160 | 0.36 | 1.73 |
| *Allocated of IPOs' | 8 | 767.6 | 485.94 | 1065.39 | 60 | 3288 | $2.36{ }^{\text {@ }}$ | 1.73 |
| ${ }^{*}$ Size of IPOs ${ }^{\prime}$ | 8 | 864.8 | 167.71 | 1792.21 | 31.2 | 5260.8 | $2.73{ }^{\text {@ }}$ | 1.73 |

Source: Computed from NSE Index. *Values in Lakhs $\quad{ }^{* * V}$ Values in Crores @ - Skewness is statistically significant as it is greater than value of 2 Standard Error of Skewness (SES)
The positive value of skewness, 2.05 has indicated that the offer prices across the firms under power sector are asymmetric and there are more IPOs with low offer price [as skewness is positive and significant, i.e., the scores (offer prices), are punched up on the low end of the score scale].
The similar scenario is visible in the case of IPOs under IT sector (Skew = 2.21). On the other hand, the significant positive values of skewness, $0.34,0.40$ and 0.36 for offer prices of IPOs under Infrastructure, Pharmaceutical and Banking \& finance with mean, median, maximum and minimum of Rs. 372.10 , Rs. 295.50 , Rs. 110.00 and Rs. 685.00 , Rs. 212.60 , Rs. 175.00 , Rs. 68.00 and Rs. 380.00 , and Rs.78.88, Rs. 71.50 , Rs. 19.00 and Rs. 160.00 respectively has indicated that the offer prices of IPOs under these sectors are symmetrical.
The offer price of IPOs under Power and IT sectors are asymmetric, whereas they are symmetric in case of the other three sectors.

## (B). ALLOCATION OF SHARES

The mean, median, standard deviation and skewness values of the allocation of shares has been calculated in the table 1 The skewness value will ascertain the normality of the curve, while the other values help for sector wise comparison.
From Table 1, it can be observed that the number of shares allocated is 2022.74 lacs on the average with median 879.08 lacs and Standard deviation of 2714.97 lacs under Power sector during the period from 2004 to 2008. The allocation of shares seems to be asymmetrical in this sectors as the obtained skewness, 1.95 is significant statistically. The mean, medium, minimum and maximum number of allocated shares are 186.70 lacs, 42.77 lacs, 27.50 lacs, and 1173.17 lacs under Infrastructure sector, 45.29 lacs, 34.34 lacs, 25.77 lacs and 95.00 lacs under Pharmaceutical, 188.15 lacs, 103.00 lacs, 30.00 lacs and 693.00 lacs under Information technology, and 767.59 lacs, 485.94 lacs, 60.00 lacs and 3288 lacs under banking \& finance sector during the period. Further, from the observation of significant positive skewness values, 2.86, 1.79 and 2.36 for IPOs under infrastructure, information technology and banking \& finance sectors respectively, it is well clear that the shares allocated by IPOs under these sectors are asymmetrical (non-normal). However, the allocation of shares by IPOs under pharmaceutical sector has been normally distributed (Skew $=2.07$, not significant).
Except for Pharma sector, where the distribution for allocation of shares is normal, all the other sectors are asymmetrical in nature.

## (C). ISSUE SIZE

The mean, median, standard deviation and skewness values for the Issue size is given in the table 1. The skewness value will ascertain the normality of the curve, while the other values help for sector wise comparison.
As far as the size of IPOs in rupees values is concerned, from the results of descriptive statistics portrayed in Table 1, it is well understood that the size of IPOs under Power (Skew = 2.06), Information technology (Skew = 3.26) and Banking \& finance (Skew = 2.73) are asymmetrical as the skewness values are more than value of 2 standard error of skewness (SES). The positive and significant skewness values for these sectors have further indicated that the small size IPO are at the low end in most of the cases. On the other hand, in respect of infrastructure and pharmaceutical sectors, the size of IPOs is symmetrical, i.e., normally distributed.
This is because of the fact that calculated skewness values are not statistically significant. It can also be noted from the table that the average size of IPOs is Rs.1215.25, Rs.391.94, Rs.77.07, Rs. 589.96 and Rs. 864.84 with Median Rs. 483.73 . Rs.213.39, Rs. 64.60 , Rs. 135.00 and Rs. 167.71 under Power, Infrastructure, Pharmaceutical, Information technology and Banking \& finance sectors respectively. The minimum and maximum offer size is Rs. 81.25 and Rs. 5368.15 for power, Rs. 50.75 and Rs. 1290.48 for infrastructure, Rs. 44.87 and Rs. 117.86 for pharmaceutical, Rs. 27.00 and Rs. 4713.47 for information technology, and Rs. 31.20 and Rs. 5260.79 for banking \& finance sectors respectively.
The distribution of IPO issue size is symmetric for pharma and infrastructure, whereas its asymmetric in IT, Power and Banking sectors.
II. COMPARISON OF MEAN INITIAL RETURNS ACROSS SECTORS

The mean initial returns on first listing day have been compared between sectors using t-test in the table 2.
TABLE 2: COMPARISON OF MEAN INITIAL RETURNS ACROSS SECTORS

| Power | Infrastructure | Pharma | Info. Tech. | Banking \& Finance | t-Ratio | df | p Value | LS |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 53.19 | 34.28 |  |  |  | 0.8 | 18 | 0.4346 | NS |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |


| 53.19 |  | 50.11 |  |  | 0.08 | 13 | 0.9402 | NS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 53.19 |  |  | 22.89 |  | 1.49 | 19 | 0.1528 | NS |
| 53.19 |  |  |  | 27.61 | 1.03 | 16 | 0.3172 | NS |
|  | 34.28 | 50.11 |  |  | -0.48 | 13 | 0.6418 | NS |
|  | 34.28 |  | 22.89 |  | 0.83 | 19 | 0.4175 | NS |
|  | 34.28 |  |  | 27.61 | 0.39 | 16 | 0.7049 | NS |
|  |  | 50.11 | 22.89 |  | 0.96 | 14 | 0.3533 | NS |
|  |  | 50.11 |  | 27.61 | 0.65 | 11 | 0.532 | NS |
|  |  |  | 22.89 | 27.61 | -0.38 | 17 | 0.7071 | NS |

NS - Difference in means between sectors is not significant statistically
The mean initial returns on first listing day (day 1 ) have been compared between sectors using t -test. The results of the t-test are presented in Table 2. It is evident from table that the $t$-values obtained from comparing the mean initial returns between power and infra ( $t$-value $=0.80$ ), power and pharma ( $t$-value $=0.08$ ), power and information technology $(t$-value $=1.49)$ and between power and banking \& finance $(t$-value $=$ 1.03 ) are very low and insignificant. Similarly $t$-values for the difference in mean initial return between infra and other sectors, between pharmaceutical and other sectors, and between information technology and banking \& finance have also been insignificant. From the above results, it is clearly understood that there is no significant difference in mean initial return from IPOs across sectors.

## III. MULTIPLE REGRESSION ANALYSIS

Multiple Regression is used to calculate initial return on listing day with IPO size and listing delay for all selected sectors. The analysis in Table 3 is carried to ascertain the unique impact of IPO size and listing delay on the flickers, who fixed the prices for IPOs in the market.
Table 3 portrays the results of multiple regressions for initial return on listing day with IPO size and listing delay for all selected sectors. It is apparent that the regression models for power ( $F$ value $=6.28, p<0.05$ ), pharmaceutical sectors ( $F$ value $=43.70, p<0.05$ ) have been fitted significantly. But for the other sectors, the fit of the models is insignificant. With initial return from IPOs under power sector, listing delay has significant positive coefficient (beta $=13.1642, \mathrm{t}=3.30, \mathrm{p}<0.01$ ). Similarly, the listing delay has significant positive coefficient (beta $=16.6333$, $t=2.22, p<0.10$ ) with initial return from IPOs under infrastructure sector, and it has significant negative coefficient (beta $=-43.013, t=-9.07, p$ < 0.01) with initial return from IPOs under Pharmaceutical sector.
The listing delay has significant unique influence on subscribers and for each day of delay increases the initial return on listing day from IPOs under power sectors. The scenario in

TABLE 3: REGRESSION FOR INITIAL RETURN (DAY 1 RETURN) WITH ISSUE SIZE (IN RS.CRORES) AND LISTING DELAY (IN DAYS)

| Independent Variables | Power | Infra | Pharma | IT | Banking | All Sectors |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Intercept | $-208.70^{* *}$ | $-300.78^{*}$ | $865.61^{* * *}$ | -133.22 | 58.3231 | -52.248 |
|  | $(-2.45)$ | $(-1.98)$ | -9.86 | $(-1.27)$ | -0.69 | $(-0.88)$ |
| Listing Delay (in Days) | $13.1642^{* * *}$ | $16.6333^{*}$ | $-43.013^{* * *}$ | 7.88638 | -1.1293 | 4.6815 |
|  |  | -3.3 | -2.22 | $(-9.07)$ | -1.5 | $(-0.27)$ |
| Issue Size (in Rs.Crores) | -0.0109 | 0.00185 | -0.3122 | -0.0015 | -0.0086 | -0.0084 |
|  |  |  |  |  |  |  |
|  |  | $-1.27)$ | -0.07 | $(-0.95)$ | $(-0.31)$ | $(-1.08)$ |
|  |  |  | $(-1.47)$ |  |  |  |


|  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $R^{2}$ | 0.6424 | 0.4124 | 0.9776 | 0.2236 | 0.3018 | 0.084 |
| Adjusted $R^{2}$ | 0.5402 | 0.2445 | 0.9553 | 0.0296 | 0.0225 | 0.0393 |
| F Value | $6.28^{* *}$ | $2.45^{\text {Ns }}$ | $43.70^{* *}$ | $1.15^{\text {Ns }}$ | $1.08^{\text {Ns }}$ | $1.88^{\text {Ns }}$ |

Figures in parenthesis are $t$-values. Source: Computed from NSE Index. *Significant at $10 \%$ level; **Significant at 5\% level; ***Significant at $1 \%$ level. NS - Not significant
The case of IPOs under infrastructure sector has been as same as that of IPOs under power sector (though fit of model is insignificant, the beta coefficient of listing delay is significant at $10 \%$ level). However, in respect of pharmaceutical sector, the scenario has been in the reverse. As early as possible the IPOs under this sector are listed, the chances of getting higher initial return are more. Moreover, 64.24 per cent and 97.76 per cent of the variation in the return from IPOs from Power and Pharmaceutical sectors on listing day could be explained by listing delay and size of the IPOs.
Relating to all sector as well as to information technology and banking \& finance, either listing delay or IPOs size has significant unique influence on initial return on day 1.
On the whole, it is summed up from the above results that initial return from IPOs under power and pharmaceutical sectors on listing day is influenced significantly by listing delay, whereas it has nothing to do with initial return from IPOs under infrastructure, information technology and banking \& finance sectors as well as with initial return from IPOs of all sectors.
Also, the initial return on listing day does not differ from IPOs belonging to one sector to another sector. Finally, it is elicited from the discussion of the regression results that listing delay has unique impact on initial return of power and pharmaceutical sectors and either listing delay or IPO size have unrelated to initial return from IPOs under information technology and banking \& finance sector.

## CLIMATIC CONDITIONS OF IPOS

The IPOs under each sector are categorized into four groups based on their initial returns, i.e., returns on listing day. The IPOs are categorized 'Very cold' if the initial returns are below or equal to 0 per cent; "cold" if the initial returns are between 0 per cent and 10 per cent; "hot" if the initial returns are between 10 per cent and 60 per cent; and "very hot" if the initial returns are above 60 per cent. Average day-wise returns from IPOs under four groups are calculated and compared in Table 4.

## POWER SECTOR

Flipping IPOs on short-time basis has yielded more return than flipping it on listing day. Though maximum return from one-month holding is not attractive compared to the maximum return on flipping between day 1 and 5, it is remarkably higher at 248.75 per cent when sold after three months. In sum, it is found from the above results that the return from IPOs under power sector on listing day is positive but short-term return is more attractive than daily return. Also, return from IPOs under this sector is symmetrical

TABLE 4: DAY-WISE RETURN FROM IPOS OF SELECTED SECTORS UNDER DIFFERENT CLIMATIC CONDITIONS.

| Return Period | POWER |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | VERY COLD ( $\mathrm{n}=2$ ) |  | $\operatorname{COLD}(\mathrm{n}=1)$ |  | HOT ( $\mathrm{n}=4$ ) |  | VERY HOT ( $\mathrm{n}=1$ ) |  |
|  | Mean | Median | Mean | Median | Mean | Median | Mean | Median |
| Initial Return (Day 1) | -2.5 | -2.5 | 1.89 | -- | 32.85 | 33.6 | 134.5 | 148.75 |
| Day 2 | -4.45 | -4.45 | 0.61 | -- | 30.9 | 31.25 | 153.6 | 161.88 |
| Day 3 | -5.6 | -5.6 | -2.56 | -- | 30.84 | 31.9 | 168.7 | 181.56 |
| Day 4 | -2.96 | -2.96 | -1.4 | -- | 26.28 | 26.7 | 166 | 176.88 |
| Day 5 | -0.96 | -0.96 | -2.29 | -- | 27.68 | 29.66 | 164.3 | 182.19 |
| Day 30 (One Month) | 17.6 | 17.6 | -19.1 | -- | 33.81 | 31.24 | 156.4 | 177.23 |
| Day 90 (Three Months) | 31.2 | 31.18 | -38.5 | -- | 75.31 | 68.95 | 139.2 | 139.22 |
| Return Period | INFRASTRUTURE |  |  |  |  |  |  |  |
|  | VERY COLD ( $\mathrm{n}=2$ ) |  | $\operatorname{COLD}(\mathrm{n}=1)$ |  | HOT ( $\mathrm{n}=4$ ) |  | VERY HOT ( $\mathrm{n}=1$ ) |  |
|  | Mean | Median | Mean | Median | Mean | Median | Mean | Median |
| Initial Return (Day 1) | -23.6 | -23.64 | 4.34 | -- | 38.63 | 43.44 | 77.06 | 75.47 |
| Day 2 | -26 | -25.99 | 4.03 | -- | 53.48 | 51.47 | 75.85 | 72.97 |
| Day 3 | -31.4 | -31.39 | 2.94 | -- | 69.51 | 57.69 | 74.98 | 78.57 |


| Day 4 | -26.2 | -26.17 | -15.7 | -- | 69.4 | 57.4 | 76.49 | 74.16 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Day 5 | -30.2 | -30.18 | -17.1 | -- | 72.95 | 62.51 | 72.25 | 73.65 |
| Day 30 (One Month) | -46 | -45.95 | -20.9 | -- | 117.8 | 108.88 | 53.56 | 40.95 |
| Day 90 (Three Months) | -28 | -27.98 | -6.18 | -- | 128.6 | 56.02 | 57.72 | 57.72 |
| Return Period | PHARMA |  |  |  |  |  |  |  |
|  | VERY COLD ( $\mathrm{n}=2$ ) |  | COLD ( $\mathrm{n}=1$ ) |  | HOT ( $\mathrm{n}=4$ ) |  | VERY HOT ( $\mathrm{n}=1$ ) |  |
|  | Mean | Median | Mean | Median | Mean | Median | Mean | Median |
| Initial Return (Day 1) | -12.2 | -12.18 | -- | -- | 32.81 | 32.81 | 209.3 | -- |
| Day 2 | -9.94 | -9.94 | -- | -- | 29.16 | 29.16 | 168 | -- |
| Day 3 | -16.2 | -16.16 | -- | -- | 28.2 | 28.2 | 168.2 | -- |
| Day 4 | -17 | -17.04 | -- | -- | 30.89 | 30.89 | 172.7 | -- |
| Day 5 | -23.9 | -23.85 | -- | -- | 33.04 | 33.04 | 171.8 | -- |
| Day 30 (One Month) | -26 | -25.99 | -- | -- | 42.41 | 42.41 | 118.9 | -- |
| Day 90 (Three Months) | -10.8 | -10.84 | -- | -- | 436 | -- | 193.1 | -- |

(Continued)

| Return Period | INFORMATIONAL TECHNOLOGY |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\operatorname{VERY}$ COLD ( $\mathrm{n}=2$ ) |  | $\operatorname{COLD}(\mathrm{n}=1)$ |  | HOT ( $\mathrm{n}=4$ ) |  | VERY HOT ( $\mathrm{n}=1$ ) |  |
|  | Mean | Median | Mean | Median | Mean | Median | Mean | Median |
| Initial Return (Day 1) | -3.49 | -3.49 | 3.69 | 3.69 | 35.91 | 43.34 | -- | -- |
| Day 2 | -4.32 | -4.32 | 10.15 | 10.2 | 35.56 | 41.59 | -- | -- |
| Day 3 | -8.17 | -8.17 | 12.3 | 12.3 | 35.08 | 34.32 | -- | -- |
| Day 4 | -5.21 | -5.21 | 8.64 | 8.64 | 38.87 | 43.77 | -- | -- |
| Day 5 | -2.3 | -2.3 | 6.15 | 6.15 | 44.23 | 51.55 | -- | -- |
| Day 30 (One Month) | 4.86 | 4.86 | 19.55 | 19.6 | 40.31 | 27.25 | -- | -- |
| Day 90 (Three Months) | 40.7 | 40.71 | 58.84 | 58.8 | 44.23 | 29.68 | -- | -- |
| Return Period | BANKING \& FINANCE |  |  |  |  |  |  |  |
|  | VERY COLD ( $\mathrm{n}=2$ ) |  | $\operatorname{COLD}(\mathrm{n}=1)$ |  | HOT ( $\mathrm{n}=4$ ) |  | VERY HOT ( $\mathrm{n}=1$ ) |  |
|  | Mean | Median | Mean | Median | Mean | Median | Mean | Median |
| Initial Return (Day 1) | -11.4 | -11.44 | 8.08 | -- | 38.3 | 40.05 | 82.5 | -- |
| Day 2 | -14.8 | -14.84 | 7.64 | -- | 33.78 | 33.74 | 73.27 | -- |
| Day 3 | -21 | -21.01 | 1.76 | -- | 32.4 | 34.65 | 62.31 | -- |
| Day 4 | -13.1 | -13.08 | 2.97 | -- | 37.21 | 39.38 | 79.04 | -- |
| Day 5 | -10.6 | -10.63 | -4.73 | -- | 37.32 | 40.46 | 81.92 | -- |
| Day 30 (One Month) | -25.2 | -25.16 | 1.65 | -- | 49.93 | 53.58 | 128.9 | -- |
| Day 90 (Three Months) | -24.8 | -24.83 | 46.43 | -- | 182.6 | 115.22 | 163.7 | -- |

Source: Computed from NSE Index.
Very cold IPOs performed well in near short-term and short-term, but their performance are well below the level of 'hot' and 'very hot' IPOs, which have performed consistently throughout the period up to 3 months.

## INFRASTRUCTURE

The return from IPOs under this sector has increased at mentionable level only in respect of 4 out of 10 firms during short-term. For the remaining, the return is either negative or declined sharply from its level during listing periods. However, all IPOs under infrastructure have
yielded as much as 63.10 per cent on average with a maximum of 375.18 per cent when they are flipped after three months. Also, returns from IPOs under this sector are symmetrical in very short-term (within a month) whereas they are asymmetrical in short-term ( 3 months).
The initial return from IPOs under 'very cold' and 'cold' conditions on first listing day yielded negative return in near short-term and short-term whereas from IPOs under 'hot' and 'very hot' groups have performed well on all listing days. However, the performance of IPOs classified as 'Hot' is much better than that of IPOs classified as 'Very Hot' under infrastructure sector.

## PHARMACEUTICALS

(1) Performance of IPOs under pharmaceutical has been at two extremes, i.e., there are IPOs with very poor performance and much better performance, revealing that subscribers can hold the shares from earlier flipping;
(2) Return from IPOs under pharmaceutical sectors are normally distributed (symmetrical);
(3) The returns on short-term are highly heterogeneous compared to that of during listing periods and during near short-term.

The performance of 'very cold' IPOs have failed to improve its performance in near short-term and short-term, and at the same time, the IPOs under 'hot' and 'very hot' groups have yielded consistent positive return to the flippers.

## INFORMATION TECHNOLOGY

IPOs under this sector is somewhat consistent either from near short term or short-term flipping. Also, the values of skewness have clearly indicated the returns from IPOs under this sector are normally distributed (symmetrical). Hence, it is found that IPOs under IT sector have performed well, have been symmetrical and shown consistency in all listing periods.
IPOs classified as 'very cold' has been well in short-term, 'cold' group has been well in both on first listing days and short-term, while IPOs under 'Hot' groups have performed very well with consistency from first listing days to day 5 as well as on day 30 and 90 under information technology sector.

## BANKING \& FINANCE

The IPOs under banking and finance sector have performed well on initial listing days, near short-term and short-term and have been normally distributed. In short-term, the return is very high but highly inconsistent across firms.
The IPOs, which are very cold on first listing day has been under same condition for 3 months, whereas IPOs classified as 'cold' has shows better performance in short-term. It is further found that IPOs categorized as 'hot' with positive initial return is much less than that of 'Very hot' IPOs from day 1 to day 30, but in the short-term (day 90), 'hot' IPOs have performed much better than 'very hot' IPOs under banking and finance sector.

## CONCLUSION

On the whole, it is summed up that initial return from IPOs under power and pharmaceutical sectors on listing day is influenced significantly by listing delay, whereas it has nothing to do with initial return from IPOs other sectors.
Majority of IPOs under all sectors have performed well in near short-term and short-term. Also, initial returns from most of the IPOs are symmetrical. Moreover, IPOs with 'very cold' and 'cold' condition on listing day are performing well in short-term and IPOs with 'hot' and 'very hot' condition have exhibited consistency in giving positive initial return and the initial return after 3 months have been much higher. Also, the initial return on listing day does not differ from IPOs belonging to one sector to another sector. Finally, it is elicited from the discussion of the regression results that listing delay has unique impact on initial return of power and pharmaceutical sectors and both listing delay and IPO size are unrelated to initial return from IPOs under information technology and banking \& finance sector.

## RECOMMENDATIONS

Investing in major sectors like power, infrastructure, pharmaceuticals, banking, etc., will provide considerable benefits to all investors and especially the small retail investors will benefit. IPOs that perform well during the listing day yield good returns in the short term and the yield is considerably higher in the long term.

## REFERENCES

1. Stravros Peristiani and Gijoon Hong, (2004), "Pre-IPO Financal Performance and Aftermarket Survival," Current Issue in Economic and Finance, Vol. 10, No.2, pp.1-7.
2. Harjeet S. Bhabra and Richard H. Pettway, (2003), "IPO Prospectus Information and Subsequent Performance," The Financial Review, Vol. 38, pp. 397-405.
3. Kevin Keasey and Helen Short, (1997), "Equity Retention and Initial Public Offerings: the influence of signalling and entrenchment effects," Journal of Applied Financial Economics, Vol. 7, pp. 75-85.
4. Warren Gorham and Sament, (1998), "Initial Public Offerings: Handbook of Modern Finance," Vol. 2, No.1, Springer Publications.
5. Kuchhal, M. C., (2005), "Business Law". Vikas Publishing House Pvt. Ltd, India.
6. Survey of Indian Industry, (2005). The Hindu Publications.
7. Khan, M. . and P. K., Jain, (2005), "Financial Management". Tata McGraw Hill.
8. Industry Outlook (2006-2007), Outlook Business and ICRA.
9. www.iporesources.com
10. www.sebi.co.in
11. www.economictimes.com

# RETURN - BASED PERFORMANCE ANALYSIS OF SELECTED EQUITY MUTUAL FUNDS SCHEMES IN INDIA - AN EMPIRICAL STUDY 

DR. R. SHANMUGHAM<br>MEMBER, SOCIETY OF CAPITAL MARKET RESEARCH \& DEVELOPMENT, NEW DELHI PROFESSOR<br>SCHOOL OF MANAGEMENT<br>BHARATHIAR UNIVERSITY<br>COIMBATORE - 641046<br>ZABIULLA<br>SENIOR LECTURER (FINANCE \& CONTROL)<br>department of management studies SAMBHRAM ACADEMY OF MANAGEMENT STUDIES BANGALORE - 560097


#### Abstract

Risk and return plays a key role in most individual investors' decision making process. Every investor wants to avoid risk and maximize return Investment decisions, therefore, involve a trade off between risk and return, which is considered to be central to the investment decision making. In today's environment, it is prudent for a rationale investor to look into the real interest on an investment as the inflation is moving out of the gear. While investors like return they abhor risk. This necessitates for optimization of risk and reward. Mutual fund is considered to be the most suitable investment option for the common man as it offers the opportunity to invest in a diversified, professional managed basket of securities at a relatively low cost. Mutual funds provide investment opportunities depending on investor's risk, return expectations. The present paper address the financial performance of mutual funds in the framework of risk - return dimensions. In order to achieve the objectives set, investment performance measures, cluster analysis and correlation analysis are used.


## KEYWORDS

Cluster Analysis, Equity Mutual Funds, Return - Based Performance, Risk and Return trade off

## INTRODUCTION

ねisk and return plays a key role in most individual investors' decision making process. Every investor wants to avoid risk and maximize return. In general, risk and return go hand in hand. If an investor wishes to earn higher returns than the investor must appreciate that this will only be achieved by accepting a commensurate increase in risk. Risk and return are positively correlated; an increase in one is accompanied by an increase in the other. Investment decisions, therefore, involve a trade off between risk and return, which is considered to be central to the investment decision making.
In today's environment, it is prudent for a rationale investor to look into the real interest on an investment as the inflation is moving out of the gear. While investors like return they abhor risk. This necessitates for optimization of risk and reward. A common investor necessarily has to invest in bank deposits, post office savings, public provident funds for reasons such as liquidity, safety, assured return, tax benefits and so on. Here comes the need for the investors to invest something beyond these investment avenues with an appetite for higher rewards and of course with minimum risk. Mutual fund is considered to be the most suitable investment option for the common man as it offers the opportunity to invest in a diversified, professional managed basket of securities at a relatively low cost. Mutual funds provide investment opportunities depending on investor's risk, return expectations.
The rest of the paper is organised as follows. Section 2 presents the brief review of existing literature. Section 3 provides the data and their sources. The methodology employed for the present study is presented in section 4 . Section 5 describes the empirical findings and discussions based on which the final section gives the summary of the paper along with conclusions.

## REVIEW OF LITERATURE

Treynor (1965) developed a methodology for evaluating the fund performance called reward to volatility measure. In his path breaking study, Sharpe (1966) developed reward to variability measure and found 11 funds reported superior performance out of 34 funds to that of DJIA. Jensen's (1968) devised a measure based on CAPM and reported that mutual funds did not appear to achieve abnormal performance when transactions cost were considered. Fama (1972) developed a methodology for evaluating investment performance of managed portfolios. He suggested that overall performance could be broken down into several components.
Gupta (1974) evaluated the performance of select mutual funds categorized in terms of their broad investment objectives for the period 196271. He reported that all fund types outperformed the market irrespective of choice of market index and performance measure.

Jayadev (1996) evaluated the performance of two growth -oriented mutual funds on the basis of monthly returns compared to benchmark returns over a study period of 21 months (June 1992 to March 1994). He employed risk- adjusted performance, measures suggested by Jensen, Treynor and Sharpe for evaluation. He found that both the funds were poor in earning better returns either adopting market timing strategy or in selecting under - priced securities. Further, the study concluded that the two growth -oriented funds have not performed better in terms of total risk and were not offering advantages of diversification and professionalism to the investors.

Sethu (2001) attempted to evaluate the performance of 18 open-ended growth schemes in India for the period April 1995 to July 1999. Using three alternative indices for equity markets, viz., NSE Nifty, Sensex and S\&P CNX 500, the study concluded that fund portfolios are not sufficiently diversified and portfolios do not show any market timing.
Noulas et al (2005) evaluated the performance of 23 Greek equity funds using risk - return analysis. The ranking of the mutual funds was based on the techniques used by Treynor, Sharpe and Jensen. The study showed that the equity funds have neither the same risk nor the same return. They reported that there were big differences among the equity mutual funds with respect to risk and return.
Muthappan and Damodharan (2006) evaluated the performance of Indian mutual fund schemes in the risk and return framework during the period April 1995 to March 2000 employing Sharpe, Treynor, Jensen, Sharpe differential measure and Fama's components of performance measures. The results indicated that the risk and return of mutual fund schemes were not in conformity with their investment objectives. The sample schemes were found to be inadequately diversified. However, the funds were able to earn higher returns due to selectivity.
Tripathy (2006) empirically investigated the market timing abilities of Indian fund managers of thirty one tax planning schemes in India over the period December 1995 to January 2004 using Treynor and Mazuy Model and Henriksson and Merton Model. The study reported that the fund managers were not successful in reaping returns in excess of the market returns; rather they were timing the market in wrong direction.
Deb et al (2007) employed conditional and unconditional approaches to find the stock selection and market timing abilities of 96 Indian mutual fund managers. The study reported lack of market timing abilities and presence of stock selection abilities among the fund managers in both conditional as well as unconditional approaches. Further, from pooled regressions, they confirmed the strong evidence of positive stock selection and negative market timing.
Sehgal and Jhanwar (2008) evaluated the performance of 60 growth and growth - income mutual fund schemes in India from January 2000 to December 2004.They examined both the stock selection skills and the timing abilities of the sample fund managers and argued that multi-factor benchmarks provide better selectivity and timing measures compared to one-factor CAPM as they control for style characteristics such as size, value and momentum. It found that the evidence on selectivity improved marginally when higher frequency data such as daily returns are used instead of monthly returns.
Zabiulla (2010) examined the investment performance of twelve selected sector funds during April 2006 to July 2009 using high frequency data. The study revealed that performance measured in terms of downside and relative risk criteria revealed that almost all the schemes posted poor performance. The study concluded that time tested models alone cannot give a fair view of the fund manager's competence skills in delivering abnormal returns; downside risk measures could definitely augment the performance evaluation framework of managed portfolios.

## DATA AND THEIR SOURCES

SAMPLE: We have used a sample of 30 equity diversified mutual fund schemes to examine the risk - return relationship. These schemes are aggressive in nature and are ranked based on their three year performance by ICRA as on $31^{\text {st }}$ December 2009.
PERIOD OF STUDY: Data concerning this study covers a period of recent 45 months that span from April 2006 to December 2009.
DATA: This study is both descriptive and empirical in nature. The overall data set up for the analysis in this study is based on secondary data. Daily NAVs of the sample equity diversified schemes are taken from the website of Association of Mutual Funds in India (AMFI). S\&P CNX 500 is used as a proxy for the market return and the daily index close values are retrieved form the website of National Stock Exchange (NSE). The bank rate is used as a surrogate for risk free rate of return and is taken from the Reserve Bank of India (RBI) website.
OBJECTIVES THE STUDY: The study aims at analyzing the risk - return relationship of select equity diversified mutual fund schemes using emerging market data.
TOOLS USED FOR ANALYSIS: In order to examine the return based performance of the sample equity mutual fund schemes, the following tools are employed:
a) Performance measures: Average Returns, Standard Deviation, Beta, R - Squared, Jensen's Alpha and Sharpe Index.
b) Cluster Analysis for stratification of schemes based on average cluster centres.
c) Correlation Analysis for understanding the relationship between the performance measures.

Data collected from different sources was analysed through SPSS 17.0 (Statistical Package for Social Sciences).

## METHODOLOGY

## RISK BASED PERFORMANCE MEASURES

The daily NAV data have been converted into daily return using the equation $R_{i t}=\ln \left(N A V_{t} / N A V_{t-1}\right) * 100$. Daily return on market portfolio has been calculated using equation except that in place of NAV, closing index values are used. The series so developed is averaged to arrive at the average return for the scheme as well as the benchmark portfolio. Standard deviation is a measure of variability in returns. The higher the standard deviation, higher will be the risk and vice - versa.
The systematic risk of a portfolio is measured by beta. Systematic risk is the variability in the portfolio return caused by the changes in the economy or the market. A higher variability would indicate higher systematic risk and vice - versa. Regression method is used for calculating beta in the present study. Excess portfolio return is regressed over excess market return to estimate the beta coefficient. A beta of 1.0 indicates a fund of average risk. A fund with beta greater than 1.0 has above average risk. Its returns would be more volatile than the market return. A fund with a beta less than 1.0 would have below average risk variability in its return and would be comparatively lower than the market variability. Beta can also be negative, implying that the fund return moves in a direction opposite to that of the market return.
 measures the extent to which market index has been able to explain the variation in mutual fund. The high value of $R-S q u a r e d$ indicates the fund manager has exploited the diversification strategy to the optimum extent.
Jensen's alpha measures the difference between the actual return earned on a portfolio and a return expected from the portfolio given its level of risk. The differential return gives an indication of the portfolio manager's predictive abilities of stock selection. The differential return is calculated as $\alpha_{p}=R_{p}-E\left(R_{p}\right)$ where $\alpha_{p}$ is the differential return earned, $R_{p}$ is the actual returned earned on the portfolio and $E\left(R_{p}\right)$ is the expected return and is obtained using CAPM methodology. A positive alpha indicates that superior return has been earned due to superior management skills, when alpha is zero, it indicates neutral performance meaning that the portfolio manager has done just as well as
an unmanaged randomly selected portfolio with a naïve buy - hold strategy. A negative alpha reflects that the portfolio performance has been worse than that of the market or a randomly selected portfolio of equivalent risk.
Sharpe index measures the risk premium of the portfolio relative to the total amount of risk in the portfolio. The larger the Sharpe index, the better the fund has performed and vice - versa. Sharpe index has been calculated as: $R_{p}$ portfolio return over risk free rate of return and $\sigma_{p}$ is the standard deviation of portfolio return.
CLUSTER ANALYSIS
Cluster Analysis is a multivariate statistical tool that attempts to identify relatively homogeneous groups of cases based on selected characteristics. The cluster analysis is an exploratory data analysis which aims at sorting different objects into groups in a away that the degree of association between two objects is maximal if they belong to the same group and minimal otherwise. It is regarded as data reduction technique. For the purpose of this study, the researcher has selected updating cluster centers iteratively for classifying cases.

## CORRELATION ANALYSIS

Correlation Analysis is a statistical device which helps us in analysing the correlation of two or more variables. The problem of analysing the relation between different series should be broken into three steps:
(i) Determining a whether a relation exists and, if it does, measuring it,
(ii) Testing whether it is significant, and
(iii) Establishing the cause and effect relation, if any.

In the present study, Karl Pearson correlation coefficient is used.

## ANALYIS OF RESULTS

## RESULTS OF PERFORMANCE MEASURES

Table 1(a) summarises the results of performance measures of the sample equity mutual fund schemes. Table 1(b) presents the descriptive statistics of the performance measures. The average daily returns were positive for all the schemes under consideration. The maximum daily average returns was found in Reliance Diversified Power Fund - Growth ( $0.102 \%$ ); while two schemes have posted least average returns namely, Birla Sun Life India Opportunities Fund - Growth (Plan B) and Taurus Bonanza Fund - Growth (0.01\%). The average returns for all the schemes stood at $0.046 \%$. Majority of the schemes ( 16 schemes) have posted above average retruns of $0.046 \%$ during the sample period. All the schemes have standard deviation greater than unity. LIC Equity Fund - Growth is more volatile in comparison with the other sample schemes while Birla Sun Life MNC Fund - Growth has recorded least estimate of standard deviation among the sample schemes. Further, LIC Equity Fund - Growth is highly risky as its beta exceeds the market beta of one. Other schemes are less volatile than the market index. It is interesting to note that almost all the schemes have exploited the diversification strategy as evidenced by their higher R-squared values. Alpha predicts the stock selectivity skills of a fund manager. Nine schemes have recorded negative alpha, which is a true indicator of poor performance. Reliance Diversified Power Fund - Growth has shown better performance in terms of alpha. LIC Equity Fund - Growth, SBI MSU Emerging Businesses - Growth, Taurus Bonanza Fund - Growth and Birla Sun Life India Opportunities Fund - Growth (Plan B) has shown poor performance in terms of providing excess returns per unit total risk exposure a fund is confronted with as revealed by their negative Sharpe ratios.

TABLE 1(A): RESULTS OF PERFORMANCE MEASURES

| SI. No. | Mutual Fund Scheme | $\mu$ | $\sigma$ | $\beta$ | $R^{2}$ | $\alpha$ | SI |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 | Birla Sun Life Basic Industries - Growth | 0.040 | 2.050 | 0.947 | 0.952 | 0.004 | 0.008 |
| 2 | Birla Sun Life Buy India Fund - Growth | 0.040 | 1.710 | 0.753 | 0.859 | 0.002 | 0.010 |
| 3 | Birla Sun Life India GenNext Fund - Growth | 0.040 | 1.650 | 0.731 | 0.867 | -0.001 | 0.010 |
| 4 | Birla Sun Life India Opportunities Fund - Growth (Plan B) | 0.010 | 1.790 | 0.799 | 0.881 | -0.029 | -0.007 |
| 5 | Birla Sun Life MNC Fund - Growth | 0.030 | 1.430 | 0.619 | 0.831 | -0.004 | 0.005 |
| 6 | Canara Robeco Infrastructure Fund - Growth | 0.050 | 2.110 | 0.971 | 0.941 | 0.008 | 0.013 |
| 7 | Fidelity Equity Fund - Growth | 0.050 | 1.800 | 0.837 | 0.966 | 0.016 | 0.015 |
| 8 | Fidelity India Special Situations Fund - Growth | 0.060 | 1.920 | 0.875 | 0.916 | 0.006 | 0.019 |
| 9 | Franklin India Flexi Cap Fund - Growth | 0.050 | 1.960 | 0.913 | 0.957 | 0.007 | 0.014 |
| 10 | HDFC Capital Builder Fund - Growth | 0.050 | 1.730 | 0.771 | 0.884 | 0.008 | 0.015 |
| 11 | HDFC Core \& Satellite Fund - Growth | 0.040 | 1.900 | 0.857 | 0.903 | -0.002 | 0.009 |
| 12 | HDFC Equity Fund - Growth | 0.060 | 1.870 | 0.857 | 0.929 | 0.024 | 0.020 |
| 13 | HDFC Top 200 - Growth | 0.070 | 1.880 | 0.871 | 0.954 | 0.027 | 0.025 |
| 14 | ICICI Prudential Infrastructure Fund - Growth | 0.070 | 2.050 | 0.943 | 0.942 | 0.031 | 0.023 |
| 15 | ICICI Prudential Service Industries Fund - Growth | 0.030 | 1.890 | 0.860 | 0.920 | -0.007 | 0.004 |
| 16 | LIC Equity Fund - Growth | 0.020 | 2.310 | 1.039 | 0.911 | -0.019 | -0.001 |
| 17 | PRINCIPAL Services Industries Fund - Growth | 0.030 | 1.880 | 0.862 | 0.933 | -0.013 | 0.004 |
| 18 | Reliance Diversified Power Fund - Growth | 0.100 | 1.890 | 0.844 | 0.886 | 0.064 | 0.041 |
| 19 | Reliance Growth - Growth | 0.070 | 1.820 | 0.826 | 0.916 | 0.028 | 0.026 |
| 20 | SBI Magnum Multiplier Plus 93 - Growth | 0.050 | 1.800 | 0.808 | 0.893 | 0.012 | 0.015 |
| 21 | SBI MSU - Emerging Businesses - Growth | 0.020 | 2.090 | 0.894 | 0.817 | -0.023 | -0.002 |
| 22 | Sundaram BNP Paribas CAPEX Opportunities Fund - Growth | 0.050 | 2.020 | 0.884 | 0.848 | 0.011 | 0.013 |
| 23 | Sundaram BNP Paribas Rural India Fund - Growth | 0.040 | 1.940 | 0.856 | 0.871 | -0.006 | 0.009 |
| 24 | Tata Dividend Yield Fund - Growth (App) | 0.050 | 1.800 | 0.798 | 0.869 | 0.010 | 0.015 |
| 25 | Tata Equity P/E Fund - Growth | 0.070 | 1.910 | 0.856 | 0.895 | 0.030 | 0.024 |
| 26 | Tata Infrastructure Fund - Growth | 0.050 | 2.110 | 0.980 | 0.958 | 0.011 | 0.013 |


| 27 | Tata Life Sciences and Technology Fund - Appr. | 0.040 | 1.640 | 0.672 | 0.747 | 0.009 | 0.010 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 28 | Tata Select Equity Fund - Appr | 0.030 | 1.950 | 0.878 | 0.902 | -0.008 | 0.003 |
| 29 | Taurus Bonanza Fund - Growth | 0.010 | 2.140 | 0.964 | 0.903 | -0.029 | -0.006 |
| 30 | UTI Opportunities Fund - Growth | 0.050 | 1.820 | 0.831 | 0.922 | 0.011 | 0.015 |

TABLE 1(B): DESCRIPTIVE STATISTICS OF PERFORMANCE MEASURES

| Descriptive Statistics |  | $\boldsymbol{\mu}$ | $\boldsymbol{\sigma}$ | $\boldsymbol{\beta}$ | $R^{2}$ | $\boldsymbol{\alpha}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  |  |  |  |  |  |  |
| Mean | 0.046 | 1.895 | 0.853 | 0.899 | 0.006 | 0.012 |
| Median | 0.050 | 1.890 | 0.857 | 0.903 | 0.008 | 0.013 |
| Maximum | 0.100 | 2.310 | 1.039 | 0.966 | 0.064 | 0.041 |
| Minimum | 0.010 | 1.430 | 0.619 | 0.747 | -0.029 | -0.007 |
| Std. Dev. | 0.019 | 0.175 | 0.089 | 0.048 | 0.020 | 0.010 |

## RESULTS OF CLUSTER ANALYSIS

TABLE 2(A) - STRATIFICATION BASED ON AVERAGE RETURNS FINAL CLUSTER CENTERS

## TABLE 2(B) - NUMBER OF CASES IN EACH CLUSTER

| Cluster | 1 | 21.000 |
| :--- | :--- | :--- |
|  | 2 | 8.000 |
|  | 3 | 1.000 |
| Valid | 30.000 |  |
| Missing | .000 |  |

Source: SPSS 17.0 Output
Using K - Mean Cluster Analysis, all the 30 mutual fund schemes were classified into three clusters based on average returns. The final cluster centres, after all iterations, along with the number of funds in each cluster are computed using SPSS 17.0. Based on the average cluster centre, only one fund, Reliance Diversified Power Fund has performed better in terms of providing returns to the investors. Eight funds have shown poor performance proxied by average returns which includes Birla Sun Life India Opportunities Fund (Plan B), Birla Sun Life MNC Fund, ICICI Prudential Service Industries Fund, LIC Equity Fund, PRINCIPAL Services Industries Fund, SBI MSU - Emerging Businesses, Tata Select Equity Fund and Taurus Bonanza Fund. While remaining twenty- one sample equity diversified funds have posted average performance in generating average returns.

## TABLE 3(A) - STRATIFICATION BASED ON STANDARD DEVIATION FINAL CLUSTER CENTERS

|  | Cluster |  |  |
| :--- | :--- | :--- | :--- |
|  | 1 | 2 | 3 |
| Std. Dev | 2.110 | 1.872 | 1.632 |

TABLE 3(B) - NUMBER OF CASES IN EACH CLUSTER


Standard deviation is a measure of portfolio risk. Using K - Mean Cluster Analysis, all the 30 mutual fund schemes were classified into three clusters based on standard deviation. The final cluster centres, after all iterations, along with the number of funds in each cluster are computed using SPSS 17.0. Based on the average cluster centre, five funds have posted least standard deviation. They include Birla Sun Life Buy India Fund, Birla Sun Life India GenNext Fund, Birla Sun Life MNC Fund, HDFC Capital Builder Fund and Tata Life Sciences and Technology Fund. Eight of the sample funds are considered to be more risky as evidenced by their highest estimate of standard deviation. The highly risky funds are Birla Sun Life Basic Industries Fund, Canara Robeco Infrastructure Fund, ICICI Prudential Infrastructure Fund, LIC Equity Fund, SBI MSU Emerging Businesses, Sundaram BNP Paribas CAPEX Opportunities Fund, Tata Infrastructure Fund and Taurus Bonanza Fund. While remaining 17 funds falling under cluster -2 have posted moderate level of risk.

TABLE 4(A) - STRATIFICATION BASED ON BETA FINAL CLUSTER CENTERS

| Cluster |  |  |  |
| :--- | :--- | :--- | :--- |
|  | 1 | 2 | 3 |
| Beta | .97 | .85 | .69 |

## TABLE 4(B) - NUMBER OF CASES IN EACH CLUSTER

| Cluster | 1 | 7.000 |
| :--- | :--- | :--- |
|  | 2 | 19.000 |
|  | 3 | 4.000 |
| Valid | 30.000 |  |
| Missing | .000 |  |

Source: SPSS 17.0 Output
Beta is a measure of systematic risk. It measures the sensitivity of fund's return in relation with the market return. By convention, the beta of the market portfolio is 1 . If the beta of the fund's return is higher than the market beta, the funds is highly risky and is aggressive in nature. On the other hand, if the fund's return is lower than the market beta, the funds is less risky and is defensive in nature.
Using K - Mean Cluster Analysis, all the 30 mutual fund schemes were classified into three clusters based on beta. The final cluster centres, after all iterations, along with the number of funds in each cluster are computed using SPSS 17.0. It is observed from the above table that all the clusters have a beta less than unity. It implies that the sample mutual fund schemes are less volatile than the market portfolio. Based on the average cluster centre, the best funds with low beta in the sample include Birla Sun Life Buy India Fund, Birla Sun Life India GenNext Fund, Birla Sun Life MNC Fund and Tata Life Sciences and Technology Fund. The portfolios of these funds were prone to less fluctuation in comparison with the market portfolio. Cluster - 1 indicates the number of funds with highest beta. These schemes were tend to hold portfolios that replicate the market portfolio.

TABLE 5(A) - STRATIFICATION BASED ON R - SQUARED FINAL CLUSTER CENTERS

|  | Cluster |  |  |
| :--- | :--- | :--- | :--- |
|  | 1 | 2 | 3 |
| R - Squared | .94 | .80 | .88 |

TABLE 5(B) - NUMBER OF CASES IN EACH CLUSTER

| Cluster | 1 | 13.000 |
| :--- | :--- | :--- |
|  | 2 | 3.000 |
|  | 3 | 14.000 |
| Valid | 30.000 |  |
| Missing | .000 |  |

Source: SPSS 17.0 Output
Diversification helps reduce the risk associated with the investments. Whether the fund manager has exploited the diversification strategy in forming their portfolio or not can be examined with the help of $R$ - squared. It measures the extent to which market index has been able to explain the variation in mutual fund. The high value of $R^{2}$ indicates high diversification of portfolio while a low value of $R^{2}$ indicates less diversification of the portfolio.
Using K - Mean Cluster Analysis, all the 30 mutual fund schemes were classified into three clusters based on R-Squared. The final cluster centres, after all iterations, along with the number of funds in each cluster are computed using SPSS 17.0. It is observed from the above table that thirteen funds falling under cluster -1 could explain $94 \%$ of the total variation in fund's return, while the other $6 \%$ of the total variation remains unexplained. It shows that these funds are highly correlated with the market index. Further, three funds under cluster - 3 could able to explain the variation in fund's return to the extent of $80 \%$. The analysis of the above table reveals $43 \%$ of the sample schemes are well diversified in churning their portfolios, while the others are reasonably diversified.


Source: SPSS 17.0 Output
Alpha reflects the difference between the return actually earned on a portfolio and the return the portfolio was supposed to earn, given its systematic risk (beta). A positive alpha shows that the fund has performed better and has outperformed the market; while a negative alpha
suggests that the fund has underperformed as compared to the market. An alpha estimate of zero indicates that the fund has just performed what it is expected to.
Using K - Mean Cluster Analysis, all the 30 mutual fund schemes were classified into three clusters based on Alpha. The final cluster centres, after all iterations, along with the number of funds in each cluster are computed using SPSS 17.0. Based on average cluster centre, the best performing fund is formed under cluster - 3 viz., Reliance Diversified Power Fund. Of 35 schemes, 11 schemes have posted negative alpha values thus reflecting poor performance. These schemes failed to compensate the investors with the return that commensurate the level of systematic risk undertaken.

TABLE 7(A) - STRATIFICATION BASED ON SHARPE RATIO FINAL CLUSTER CENTERS

|  | Cluster |  |  |
| :--- | :--- | :--- | :--- |
|  | 1 | 2 | 3 |
| Sharpe Ratio | .041 | .015 | .000 |

TABLE 7(B) - NUMBER OF CASES IN EACH CLUSTER

| Cluster | 1 | 1.000 |
| :--- | :--- | :--- |
|  | 2 | 21.000 |
|  | 3 | 8.000 |
| Valid | 30.000 |  |
| Missing | .000 |  |

Source: SPSS 17.0 Output
Sharpe ratio is a reward to variability ratio and uses the standard deviation as the measure of total risk. All other things being equal, higher Sharpe Index translates into a higher performance and vice - versa.
Using K - Mean Cluster Analysis, all the 30 mutual fund schemes were classified into three clusters based on Sharpe Ratio. The final cluster centres, after all iterations, along with the number of funds in each cluster are computed using SPSS 17.0. Based on average cluster centre, the best performing fund is formed under cluster -3 viz., Reliance Diversified Power Fund. Of 35 schemes, 8 schemes have posted least value of Sharpe ratio thus reflecting poor performance. These include Birla Sun Life India Opportunities Fund, Birla Sun Life MNC Fund, ICICI Prudential Service Industries Fund, LIC Equity Fund, PRINCIPAL Services Industries Fund, SBI MSU - Emerging Businesses Fund, Tata Select Equity Fund, and Taurus Bonanza Fund.
RESULTS OF CORRELATION ANALYSIS
TABLE 8- CORRELATION MATRIX OF RISK AND RETURN MEASURES

|  |  | Average Return | Std. <br> Deviation | Beta |  | Alpha | Sharpe Ratio |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Average Return | Pearson Correlation | 1 | -. 092 | -. 014 | . 253 | . $977{ }^{* *}$ | . $997{ }^{* *}$ |
|  | Sig. (2-tailed) |  | . 628 | . 942 | . 177 | . 000 | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 |
| Std. <br> Deviation | Pearson Correlation | -. 092 | 1 | . 972 ** | . $432{ }^{*}$ | -. 149 | -. 144 |
|  | Sig. (2-tailed) | . 628 |  | . 000 | . 017 | . 432 | . 447 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 |
| Beta | Pearson Correlation | -. 014 | . $972{ }^{* *}$ | 1 | . $630{ }^{* *}$ | -. 076 | -. 066 |
|  | Sig. (2-tailed) | . 942 | . 000 |  | . 000 | . 690 | . 730 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 |
| R <br> Squared | Pearson Correlation | . 253 | . $432{ }^{*}$ | .630** | 1 | . 201 | . 227 |
|  | Sig. (2-tailed) | . 177 | . 017 | . 000 |  | . 287 | . 228 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 |
| Alpha | Pearson Correlation | . $977{ }^{* *}$ | -. 149 | -. 076 | . 201 | 1 | . $978{ }^{* *}$ |
|  | Sig. (2-tailed) | . 000 | . 432 | . 690 | . 287 |  | . 000 |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 |
| Sharpe Ratio | Pearson Correlation | . $997{ }^{* *}$ | -. 144 | -. 066 | . 227 | . $978{ }^{* *}$ | 1 |
|  | Sig. (2-tailed) | . 000 | . 447 | . 730 | . 228 | . 000 |  |
|  | N | 30 | 30 | 30 | 30 | 30 | 30 |

**. Correlation is significant at the 0.01 level (2-tailed).
*. Correlation is significant at the 0.05 level (2-tailed).
Source: SPSS 17.0 Output

It is inferred from the above table that the average return is positively correlated (high) with alpha and Sharpe ratio and the association is found to be substantially significant at $1 \%$ level of significance. Average returns and standard deviation is negatively correlated but the magnitude is not high as evidenced by its correlation coefficient of 0.092.
Standard deviation and beta is highly correlated (positive) and statistically significant. A moderate correlation is found between standard deviation and coefficient of determination as measured by R - squared. Alpha and Sharpe ratio negatively correlated with standard deviation. Besides, beta and $R$-Squared are statistically significant and highly correlated. Beta bears an inverse relationship with alpha and Sharpe ratio.

## CONCLUSION

Reliance Diversified Power Fund has performed better in terms of providing returns to the investors. Eight funds have shown poor performance proxied by average returns which includes Birla Sun Life India Opportunities Fund (Plan B), Birla Sun Life MNC Fund, ICICI Prudential Service Industries Fund, LIC Equity Fund, PRINCIPAL Services Industries Fund, SBI MSU - Emerging Businesses, Tata Select Equity Fund and Taurus Bonanza Fund.
Eight of the sample funds are considered to be more risky as evidenced by their highest estimate of standard deviation. The highly risky funds are Birla Sun Life Basic Industries Fund, Canara Robeco Infrastructure Fund, ICICI Prudential Infrastructure Fund, LIC Equity Fund, SBI MSU Emerging Businesses, Sundaram BNP Paribas CAPEX Opportunities Fund, Tata Infrastructure Fund and Taurus Bonanza Fund
The sample mutual fund schemes are less volatile than the market portfolio. The results showed that $43 \%$ of the sample schemes are well diversified in churning their portfolios, while the others are reasonably diversified. Of 35 schemes, 11 schemes have posted negative alpha values thus reflecting poor performance. These schemes failed to compensate the investors with the return that commensurate the level of systematic risk undertaken.
The results of correlation matrix showed that the average return is positive and highly correlated with alpha and Sharpe ratio and the association is found to be statistically significant. Standard deviation and beta is highly correlated (positive) and statistically significant. Alpha and Sharpe ratio are negatively correlated with standard deviation. Besides, beta and R - squared are statistically significant and highly correlated. Beta bears an inverse relationship between alpha and Sharpe ratio.

## REFERENCES

Chandra. P.,(2009), "Investment Analysis and Portfolio Management", $3^{\text {rd }}$ Edition, Tat McGraw Hill Education Private Limited, New Delhi.
Deb, Soumya Guha, Ashok Banerjee and B.B. Chakrabarti (2007), "Market Timing and Stock Selection Ability of Mutual Funds in India: An Empirical Investigation", Vikapa, Vol. 32, No. 2, pp. 39-51.
Fama, Eugene F. (1972), "Components of Investment Performance", Journal of Finance, Vol. 27, pp. 551-567.
Gupta, O.P., and S. Sehgal (1998), "Investment Performance of Mutual Funds: The Indian Experience", A paper presented at UTI - ICM, December 23-24.
Jayadev M. (1996), "Mutual Fund Performance: An Analysis of Monthly Returns", Finance India, Vol. 10, No. 1, pp. 73-84.
Jensen, Michael C. (1968), "The Performance of Mutual Funds in the Period 1645-1964", Journal of Finance, Vol. 23, No. 2, pp. 389 - 416.
Treynor, J.L., and K. Mazuy (1966), "Can Mutual Funds Outguess the Market?", Harvard Business Review, Vol. 44, July - Aug, pp.131-136.
Muthappan. P.K., and E. Damodharan (2006), "Risk - Adjusted Performance Evaluation of Indian Mutual Fund Schemes", Finance India, Vol. 10, No. 3, pp.965-983.
Noulas, Athanasios G., John A .Papanastasiou and John Lazaridis (2005), "Performance of Mutual Funds", Managerial Finance, Vol. 31(2), pp. 101-112.
Rastogi, R.P.(2007), "Investment Analysis and Portfolio Management", Sultan Chand and Sons, New Delhi.
Sehgal, Sanjay, and Manoy Jhanwar (2008), "On Stock Selection Skills and Market Timing Abilities of Mutual Fund Managers in India", International Research Journal of Finance and Economics, Issue 15, pp. 307-317.
Sethu, G. (2001), "The Mutual Fund Puzzle" in Indian Capital Markets: Modern Perspectives and Empirical Evidences, Allied Publishers, Mumbai. Sharpe, William F. (1966), "Mutual Fund Performance", Journal of Business, 39 Supplement, pp. 119-138.
Tripathy, N.P. (2006), "Market Timing Abilities and Mutual Fund Performance - An Empirical Investigation into Equity Linked Saving Schemes", Vilakshan - XIMB Journal of Management, pp.127-138.
Zabiulla (2010), "Measuring Risk - Adjusted Mutual Fund Performance: A Study of Select Sector Funds In India", Prerana - Journal of Management Thought and Practice, Vol. 2, No. 1, pp. 21-34.
www.amfiindiacom
www.mutualfundsindia.com
www.nseindia.com
www.rbi.org

# A STUDY ON PROBLEMS AND PROSPECTS OF EXPORTING INDIAN HIGHER EDUCATIONAL SERVICES 

DR. SHEELAN MISRA PROFESSOR NEW HORIZON COLLEGE OF ENGINEERING BANGALORE - 560037


#### Abstract

The paper tries to bring out the problems and prospects of exporting Indian higher educational services. A primary survey has been conducted on the 291 academicians and 338 foreign students of University of Delhi (DU) and JamiaMillialslamia (JMI) in order to find out various aspects of higher education in Indian universities and their views on Indian higher education. The research reports clearly that the present structure of Indian education has many problematic areas which need to be addressed as there are huge opportunities waiting for Indian education sector to venture in to. The areas have been suggested where this venture into education sector can be successful.


## KEYWORDS

Globalization, Indian higher educational services, International Marketing, International Mobility, Push and Pull Factors.

## INTRODUCTION

殠gher education is education provided by universities and other institutions that award academic degrees, such as university colleges, and liberal arts college (enwikipedia). As per the GATS, Higher Educational Services include education services leading to a university degree or equivalent. Such education services are provided by universities or specialized professional schools. The programmes not only emphasize theoretical instruction, but also research training aiming to prepare students for participation in original work (GATS). Societies have a profound and long-term interest in their higher education institutions that extend beyond the pecuniary and short-term interests of current students, faculty, and administrators.
The third world countries currently have a weak higher education system. While globalization, technological and demographic changes, and the growing economic importance of knowledge are making higher education reform more urgent and challenging than in past, some of these factors are also making such reforms potentially more attainable (IBRD/world bank 2000)

## RESEARCH METHODOLOGY

A primary survey has been conducted on the 291 academicians and 338 foreign students in order to find out various aspects of higher education in Indian universities and their views on Indian higher education. The survey has been conducted in the various central universities located in Delhi, India during 2009-10.
The survey is based upon various parameters to judge the academicians' views about, whether they support the phenomenon of Globalization in Indian higher education, if present Indian higher education creates a conducive environment for globalization of education services offered by Indian universities. The survey explores their opinions on benefits of internationalization, best ways to internationalize higher education in India, forms of involvement with the foreign students, awareness about the number of foreign students, countries of origin of these foreign students, courses that attract more number of foreign students trend of foreign students in India, factors attracting foreign students, Internationalization as a source of revenue, implications of internationalization on the selling and the buying institutions, supply and demand rule guarantees the quality of the educational production, should Indian universities pay more attention towards the internationalization of higher education, courses to attract foreign students, reasons for less turnover of foreign students. The academicians have been surveyed to know their views on Check and Balance missionary and their corrective measures.

## LITERATURE REVIEW

Knowledge is supplanting physical capital as the source of present and future wealth and changing the world economy. As knowledge becomes more important, so does the higher education. Countries need to educate more of their young people to a high standard. A degree is now a basic qualification for many skilled jobs. The quality of knowledge generated within education institutions, and its availability to the wider economy, is becoming increasingly critical to national competitiveness.
The factors that have encouraged market orientation for higher education are: the substantial costs associated with mass higher education which have led to a concern by government to relies more value per unit of money committed in this sector, a clear expectation by government that the higher education is more closely tied to the national economy - both in terms of meeting national labour market needs and also through the commercialization of its research and teaching activities. As a larger proportion of the population expresses an interest in participating in higher education, inevitably, higher education also becomes more of a political issue, due to aging population, the social service burden on the budget of the government is rising dramatically, which is coupled with pressure to cut government expenditure and to demand greater efficiencies from public sector institutions and in all industrialized countries. Traditional manufacturing industries are being replaced by the so-called 'knowledge processing sector of which higher education is an integral component. These factors are not peculiar to any one country, but are in fact part of a much broader process of economic globalisation (Meek, V Lynn 2000).
Globalization has become a very prominent process, which has been introduced automatically into the steps of our lives. No area can be seen untouched by this process of globalization. This is such an encompassing change that our universities and higher education also seem to be affected. And the affect is that globalization has changed the system of higher education in a very lucrative market offer nationally and internationally. Nationally, we can see a plethora of private higher education institutions emerging to provide education with a subtle motive of earning profits. Internationally, India could not remain unaccessed by the foreign universities and institutions. Presently, many foreign
universities and universities are operating in India via mode of franchisee, partnership programmes and twinning linkages etc. Many Indian Institutions are also offering their courses to foreign students via the same mode. The major effect of globalization can be seen on education, as it has become a tradable commodity.
Under General agreement on trade in services (GATS), education has been defined as a lucrative commodity. While the trade in primary, secondary, adult and other educational services is not yet considered; trade in higher education is being seriously considered to be brought under WTO policy regime.
According to Philip G. Altbach (2004), at present, about 2 million students worldwide study outside of their home countries, a number that a recent study suggests will increase to 8 million by 2025. Nations' interest in student flow across borders has increased in the past couple of decades for a number of reasons. Industrialized countries are recognizing the need to provide their students with a global consciousness and with experience in other countries in order for them to compete in the global economy. Today, more than half the world's postsecondary students are in the developing world and this proportion will grow in the coming decades. Many of these high-growth countries cannot educate everyone at home and send increasing numbers overseas to study. In addition to capacity, the institutions of the north have a prestige and power due to their domination of the curriculum and of scientific discourse that is little questioned in the contemporary academic marketplace. For those countries importing foreign students, international higher education is big business. Foreign students contribute more than $\$ 12$ billion to the U.S. economy each year. In the current environment of financial constraint, these students are increasingly attractive. International students don't just fill seats, they also contribute to the nation's global competitiveness by swelling the numbers of highly trained people in key disciplines. In some graduate specialties such as engineering, computer sciences, and a few others, foreign students constitute a majority of students at the doctoral level. With its 586,000 international students, the United States is currently by far the largest host country and home to more than a quarter of the world's foreign students. It attracts more foreign students than the three largest competitors (the U.K., Germany, and France) combined. The large majority of foreign students in the U.S. come from developing and newly industrializing countries, with 55 percent coming from Asia (the top five sending countries are India, China, South Korea, Japan, and Taiwan).
PUSH AND PULL FACTORS: Countries have an interest in student mobility, but what are the factors that motivate individual students to go abroad. These factors are called push factors. Students are "pushed" from their home countries by a variety of forces. These are lack of seats in the universities and very competitive entrance examination. Many very able students are unable to obtain entry into local universities because of lack of space and sometimes very competitive entry requirements. These students often find it easier to gain entry to good foreign institutions than to local schools. Many of the world's brightest students seek opportunities abroad because there are few, if any, "world-class" institutions in much of the world, especially in developing countries. Courses of choice are unavailable in home country. Students leave home when the specializations they want to study, from astronomical physics to aspects of zoology, are unavailable in their own countries, especially at the graduate and professional level. Most developing nations offer very limited opportunities for study at the masters and doctoral levels, and the programs that do exist often cannot compete internationally. Social and political forces are one of the push factors due to which students opt out of their home countries. Students study abroad to escape political or other repression at home or to experience academic freedom. Some students seek to escape from academic systems burdened by disruptions due to student unrest, faculty strikes, closures by government authorities, or other problems.
There are many pull factors that make students to leave their home country. In a country like United States, students are "pulled" to study for many reasons. The U.S. is generally seen as the world's best academic system. Some students feel that the prestige of a degree from a foreign university, especially an American degree, is greater than that of one from a local institution. At the same time, foreign students are attracted to lower-prestige four-year schools and to some of the best community colleges in growing numbers, sometimes finding it easier to gain admission to an unselective foreign institution than to a university at home. Thus, there are "pulls" from different segments of the academic system. Developed countries by the lure of life in and the globally disseminated culture of the United States also pull students.
A significant number of international students go abroad to study with the aim of staying in the host country to work and make a career. The U.S. is a major attractor of these students because of its large and diverse economy, the willingness of employers to hire well-qualified foreigners, and the high salaries available in many fields, including in academe. It is hard to quantify this motivation, since few international will admit that immigration is a major goal, but the non-return rates of students from several key-sending countries are indicative. Estimates of Chinese and Indian students choosing to not return home after their study in the U.S., for example, range from 66 to 92 percent and 77 to 88 percent, respectively. Altbach says "Not only are students on the move, so too are institutions. We are at the beginning of the era of transnational higher education, in which academic institutions from one country operate in another, academic programs are jointly offered by universities from different countries, and higher education is delivered through distance technologies. This growth will affect flows of students from one country to another."
Globalization of higher education involves either world of the axis. They are almost without exception dominated by the partner institution in developed countries-in terms of curriculum, orientation, and sometimes the teaching staff. Frequently, the language of instruction is the language of the dominant partner; very often English, even if the language of instruction in the country is not English. According to Altbach, there are no progressive efforts to adapt offshore programs to the needs or traditions of the country in which the programs are offered. They are simply exported as they are. Australia and the U.K. have been pioneers in exporting higher education. U.S. is now becoming a major force in this area. In some cases, arrangements are made between universities and postsecondary institutions abroad, and in others, the "partners" are corporations or entrepreneurs interested in entering the new education industry. Australian universities have, for example, linked up with academic institutions and private companies in Malaysia, and more recently in South Africa and Vietnam, to offer Australian degrees "offshore." A student can earn an Australian degree in Malaysia or Vietnam, for example, without ever setting foot in Australia. There are also franchising agreements that permit local providers to use educational programs of offshore institutions, for which they give their own degrees. Governments see transnational education, like attracting foreign students, as a way to increase higher education's revenues. At the campus level too, international initiatives produce significant income for a small but growing number of institutions. Indeed, the primary goal of many of the branch campuses and transnational programs is to enrich the home campus.
According to Phillips \& Stahl, the services industries have been experiencing rapid economic growth over the last few decades. So much so that services account for a significant share of gross domestic product in nearly all industrialized and developing countries, as well being an increasingly important source of employment in these economies. The services sector has been enticing an ever-expanding share of world foreign direct investment and has become increasingly internationalized. Educational services represent an increasingly important component of the global trade in services. Most states, industrialized and developing, are now seeking to develop their educational sectors, particularly
higher education, in order to maintain appropriate levels of human capital formation which is required in the new knowledge-based economy (Philip W \& StahI C W 2000).
Over the past years, the internationalization of higher education has been the focus of growing attention. This phenomenon is related to the rising number of mobile students in countries like Australia, France and United Kingdom. Internationally mobile students are defined as those who study in foreign countries where they are not the residents (GECD 2006).
GLOBAL TRENDS IN INTERNATIONAL MOBILITY: The start of the $21^{\text {st }}$ century has marked a significant rise in the global number of the foreign students. In 2004, at least 2.5 million tertiary students' studies outside of their home country compared to 1.75 millions just five years back, representing a $41 \%$ increase since the year 1999. As per the GED 2006, for the past 30 years, the mobile student population has been rising, with three notable surges in growth. The first occurred between 1975 and 1980 when the total number of mobile students grew by $30 \%$, from 800,000 to just over 1 million. The next wave took place between 1989 and 1994 with a rise of $34 \%$. The third and biggest surge of $41 \%$ is also the most recent, observed between 1999 and 2004.
This increase in student mobility must, nonetheless, be analysed in light of the general expansion of tertiary education. Between 1999 and 2004, tertiary enrolment grew globally from 92 to 132 million, a growth of $40 \%$ compared to the $41 \%$ rise in student mobility. There was, therefore, only marginal growth (1.87\%) in the actual share of mobile students among the total number of students, which is called the world average outbound mobility ratio. This implies that the rise in the world's total number of mobile students does not mean that young people are increasingly studying abroad but rather that they are increasingly pursuing their education in general. Nevertheless, the rising numbers of mobile students has had a significant impact on major host countries (those receiving students).
As per data from GED 2006, six countries host $67 \%$ of the world's mobile students: the United States (23\%), the United Kingdom (12\%), Germany (11\%), France (10\%), Australia (7\%) and Japan (5\%). Mobile student populations grew almost three times as fast as domestic enrolment in these host countries, $41 \%$ compared to $15 \%$. The largest groups of mobile students come from East Asia and the Pacific ( 701,000 or $29 \%$ of the world total) and Western Europe ( 407,000 or $17 \%$ ).
Amrik Singh (1982) This volume brings together papers presented by fourteen Indian Vice-Chancellors at various meetings held in India on the occasion of the council meeting of the Association of Commonwealth Universities (ACU) in 1980. Issues like fundamental versus applied research, funding of management, issues of state support for science research and related issues of the non-university sector has grown in size and range of work have been addresses in these papers.
Dr. S.Y. Shah (1986) This book is a comprehensive collection of scholarly papers presented in International conference on New Technologies in Higher education, IIT Delhi, November $28 \& 29,1985$, by some of the eminent educationists and experts in the field of Technology and Social sciences, highlight the role played by new technologies in Higher Education in India. This volume examines three broad themes: some aspects of new technologies, application of new technologies in education and problems of new technologies.
Amrik Singh \& G D Sharma (1981) This edition has the papers written by various scholars for a seminar on University and college finances, a number of debts have been incurred. It includes papers on the socio-political analysis and economic analysis, funding agencies \& methods, includes case studies of Karnataka, Bombay, Rajasthan, and Baroda \& Delhi and proposes alternative methods of financing.
K.B. Powar(2000) This volume has the papers presented at International Conference on Higher Education for Human Development, held at New Delhi, February 22-24, 2000. These relate to the status of higher education at the start of the new millennium, the impact of information technology on higher education, the role of distance \& flexible learning, quality assurance, the relevance of higher education in socio-economic development, the relationship between the world of knowledge and the world of work, human resource development and the cultural aspects of higher education.
George Psacharopoulous and Maureen WoodHall (1985) The subject of this book is the fundamental issues that have to be addressed in choosing an appropriate strategy for educational investment form. The book draws both on World Bank analysis and research and on the wider literature on planning educational investment. The chapters are drawn from World Bank experience with education projects, it is primarily concerned with the wider issues of analyzing educational investment. The book presents criteria for educational investment, cost-benefit analysis of educational investment, the costs of education, analysis of demand for man-power, financing educational investments, internal efficiency and educational quality, equity considerations in educational investments, intersectoral links of education.
Kevin Watkins (2000) The book is about some of the central challenges facing the international community in the effort to ensure good basic education for all. It examines the critical role of education in human development and poverty reduction. It looks at the progress that has been achieved during the decade since the 1990 world conference on education for all. It addresses the theme of inequality in education. There are huge gaps in educational opportunity between rich \& poor countries. It provides a snapshot of the average situation in a particular country. It examines some of the main barriers to achieving education for all. It critically examines the failure international cooperation over the past decade. It reviews the role of the state and non-state actors in education.
William H. Allaway\&Hallam C. Shorrock (1985) The essays and commentaries, which form the content of this book were originally presented on April 14 \& 15,1983 , on the occasion of the $115^{\text {th }}$ anniversary of the chartering of the University of California and the $20^{\text {th }}$ Anniversary program of the establishment of the University's Education Abroad Program (EAP). The contents of this volume provide ample evidence of the complexity of educational exchange in its motivations, its conceptualization \& its implementation. Another theme is challenges and opportunities for international exploration indifferent disciplinary areas and in different parts of the world, the ways in which methodologies \& technologies are embedded in cultures \& are also conditioned by social \& economic contents. Another theme of the book is the institutional arrangement that supports the international education in all its forms.
Report on Higher education (1998) This report focuses light on missions of higher education interactions with the whole society, lifelong education, diversification, flexibility, access to Higher education, Students \& teachers, autonomy \& accountability, academic freedom, objectivity \& intellectual rigor, research and anticipation. Presented in the summary form, the analysis positions and recommendations of the regional conferences like the Tokyo and Beirut conferences, Havana conference, Dakar Conference, Palermo conference.
Country paper (1998) This paper has been presented by MuraliManohar Joshi at Unesco world conference on higher education in the $21^{\text {st }}$ century, Paris, 5-9 October 1998, includes the objectives of higher education in the changing world, growth of higher education in India, its governance \& management, pertinence \& quality, open university system in India, financing of Higher education, new challenges, International cooperation, Visions and task ahead.
UshaRaiNegi\&VeenaBhalla (1999) The articles included in this volume attempt to define the meaning of quality in higher education and suggest measures that need to be taken to ensure that the education imparted in our tertiary-level institutions is both effective and high
quality, articles included in it review the reforms and innovations introduced in the field of higher education in recent years, in an attempt to overcome the inadequacies that have crept into higher education. They collectively indicate how the higher education system in India can be revitalized.
Zeenat S. Shafi (2001) The articles included in this volume review the reforms and innovations introduced in the field of higher education in recent years, in an attempt to overcome the inadequacies that crept into higher education. They collectively indicate how the higher education system in India can be revitalized.
Zeenat S. Shafi (2003) The focus of articles in this volume is mainly upon pros and cons of privatization of education, particularly higher education and a cross-section of views on the issue of private initiatives in higher education are being presented.
B N Koul, Bakhshish Singh \& M M Ansari (1998) The themes unfolded herein the crucial issues, lines of thought and approaches to problems under the various aspects of Distance education-theory, methodology and techniques, economics and research. The volume outlines the potentiality and utility of the distance mode of education in terms of its pervasive influence on democratic revolutions by democratizing education with the help of available communication technologies.
Derek Rowntree (1981) This book gives concise and value free definitions of the broad vocabulary of education, including British, North American and Australian terms. It provides information to those who tries to make sense of educational discussions- students, teachers, administrators and employers.
Rita Sharma (2004) The articles included in it deliberated on various issues related to assessment and accreditation of quality in higher education such as the concept of external quality assessment, parameters and practices in different systems of higher education to developments in the context of globalization and its relevance in the Indian context.
VeenaBhalla, UshaRaiNegi\&Santosh Panda (1998) This volume emphasizes the need for accountability in higher education and seeks to highlight the need for administrative, academic and financial autonomy for institutions. It is also necessary to attain a balance between these two mutually complementary aspects of autonomy and accountability.
K. K. Vashishtha (2000) This book presents the history of AIU for its 75 years of existence where AIU has contributed significantly and substantially to the development of higher education in India.
Zeenat S. Shafi\&K.B.Powar (2002) The papers in this volume assesses the role, methods and problems of networking of universities, research institutions and industry in India, as today there is a realization that there has to be a symbiotic relationship between the world of knowledge represented by the universities \& research institutions and the world of work represented by industry \& business.
K.B.Powar (1998) This volume essentially presents the views of educationists on the question of government funding for higher education. It also projects the views of international organizations and educationists on the positive role of higher education in national development.
K.B.Powar (1995) This volume contains papers on various themes of liaison cells and university-industry interaction presented at a workshop on 'establishment of liaison cells in University-industry interaction' organized by the AIU, in June 1995, at New Delhi.
K.B.Powar\& S.K. Panda (1995) This volume covers various thematic issues and dimensions of Higher education in India contributed by contemporary leading educationists. The twenty two contributions analyze the existing problems, ongoing and proposed changes and their effects on the inputs, processes and outputs of the system with a focus on the aspect of quality.
K.B.Powar (2001) This volume contains the papers presented in a roundtable on 'Internationalisation of Indian Higher Education' organized by AIU, at the University of Mysore, on $26^{\text {th }}$ to $28^{\text {th }}$ February 2001. The papers in it are classified under three themes- Global perspectives $\&$ issues, Internationalizing Indian higher education and the programmes of internationalization in Indian institutions.
AmarendraPani (2003) This volume is $11^{\text {th }}$ in series 'Selections from University News'. The papers included in this volume deal with a wide variety of issues concerning globalization of Indian Higher Education. This is useful for stakeholders of higher education through providing some insights for accepting the challenges posed by globalization.
H R Kells (1992) This book describes the development and evolution of several forms of regulatory systems for higher education on both sides of the Atlantic, with particular emphasis on the increasingly complex and self-regulatory intentions and characteristics. It focuses primarily on the nature and development of evaluation systems as they are experienced in the wider concept of regulation; their attributes, strengths, limits and how they can be improved. It analyses the patterns that are merging, the apparent national determinants and the critical relationships between purposes and means in the system.
K.B.Powar and et al (1997) This book briefly describes International scenarios, outlines the demography of International students in India \& review the measures that need to be taken to meet their minimum requirements. It also provides information on the Indian Higher education system.
J.S. Rajput (2004) This encyclopedia represents the first major attempt to present an up-to-date overview of educational policies and practices, institutional arrangements \& different projects being implemented in India.
UGC (2001) This document presents University Grants Commission's approach for strengthening and advancing higher education in the first decade of the $21^{\text {st }}$ century. The document gives UGC's vision and strategy for the Xth plan, specific programmes at operative level that would be undertaken in the Xth plan.
JaishreeK.Odin\& Peter T. Manicas (2004) This volume contains various papers based on impact of economic, cultural, and political processes on research and higher education, the future of higher education in the new context of globalization, role of technology in global and higher education from the perspective of transnationalism.
Philip G. Altbach is an eminent educationist who has published many papers on internationalization of higher education and impact of GATS. The paper by Philip G. Altbach in International Higher education, presents his views on the comparative higher education. The journal of International Higher Education is published from Boston College of Higher Education, whose editor is Philip G Altbach, substantially adding to new issues in Higher Education. Dr. Jane Knight has also contributes significantly through her papers and reports on Higher education. Higher Education Policy is an international journal for advancing scholarly understanding of the policy process applied to higher education through the publication of original analyses, both theoretical and practice-based, the focus of which may range from case studies of developments in individual institutions to policy making at systems and at national level. The Observatory on Borderless Education is another journal addressing the contemporary issues on the transnational higher education. University News in India is a publication from AIU, for the publication of papers on education related matters and issues.

## DISCUSSION ON FINDINGS

## PROBLEMS OF EXPORTING HIGHER EDUCATIONAL SERVICES

A few educational institutions in India have already begun to exploit the exports opportunity in education. The various options include attracting foreign students to their Indian campuses and setting up campuses abroad. The institution is also courting tie-ups with Iran and Iraq to service the higher education needs of the two trouble-torn countries. International quality infrastructure, English-based education and low costs compared to the West are seen as the key to selling Indian education abroad. From the examples stated above, it can be easily understood that India is not new to the concept of Globalization. But the only difference now is the more demands Globalization imposing on India to meet the challenges from the other countries. But today looking at the one of the largest education system of the world, will globalize the higher education be that easier, considering all the problems and shortcomings, it is facing. Though many institutions are working toward globalize their campuses and opening up their services to the whole world, we can't ignore the fact that still the figures of Indian students going abroad to pursue higher education is getting bigger year after year. Countries with the highest number of Indian students as a foreign scholars include United States of America, Australia and United Kingdom of Britain. With the second largest education system in the world, the challenges Indian education system is facing in the era of Globalization are unprecedented. Many Institution of international repute has established their campuses abroad and many are on the way to offer their courses to offshore students. This shows a positive approach, which these institutes are showing towards Globalization. Though India has come up with the agencies and committees and other governmental organizations which are chalking out a plan to promote Indian education abroad, a strategic vision is required to lay down a plan for Globalization of Indian higher education, where more and more foreign students join the courses offered by Indian institutions. To gain from the globalization in any field, what needed is foresight, hard work, practicing nationalism with clear understanding of internationalism, strategic thinking and strategic implementation. The process can become advantageous to India.
Indian Higher Education system does not create a conducive environment for internationalization of its higher educational services. India is also receiving very less number of foreign students when compared to the developed countries like USA, U.K., Australia, to which India is one of the major source country of foreign students. The reasons cited for the fewer turnovers of the foreign students in India as per the academicians are mentioned below rating wise:

## POOR QUALITY TRANSPORT \& RESIDENTIAL FACILITIES

Lack of the infrastructure facilities has been cited as a main reason for fewer turnovers of foreign students in India. With the exception of Metro train, which is still under progress, India does not have any world-class transport facilities. The other train and bus facilities are hugely crowded, unlikely any other developed nation. Residential facilities provided to the foreign students are also not good. There does not exist any international standard. There are limited seats available in the hostels to the students from different countries all over the world. That's why not all the students get the university hostel. They have to arrange for private accommodations where no formal help comes from the universities. They have to arrange it on their own where they can be easily exploited in terms of money and facilities with no guarantee of security. It is indicative from the data that majority of foreign students do not face problem in getting accommodation. Since all the foreign students cannot be accommodated in university hostel, they have to look for the private lodging where facilities are not good and quite costlier. The security factor is also of concern here.

## LACK OF FINANCIAL ASSISTANCE

No scheme of financial assistance is available to the foreign students from the university or the government of India. The students sponsored by Government of India under different cultural schemes pay nominal fee at par with an Indian student. Otherwise the students are financed by their respective governments or self-supporting.
REGULATORY AND BUREAUCRATIC HURDLES
There are lots of regulatory and bureaucratic hurdles in the admission procedure of foreign students from different countries as per the policy of Government of India towards those nations.

## LACK OF BRAND EQUITY/LOW MARKET LINKAGES IN THE INTERNATIONAL MARKET

With the exception of few good institutes in India, other Indian universities and courses does not have a brand value, which is accepted internationally. And because Indian higher education system does not have market linkages in the international market.

## UNDER WEIGHED QUALITY OF EDUCATION

Again with the exception of few good institutes, which are recognized internationally, other universities and institutes does not have an international acclaimed quality, whether it is faculty, curriculum or infrastructure. These areas do not have a world-class standard of quality. It has been proven from the responses of the foreign students that the quality of education they are getting in DU and JMI is average by which they mean it is not up to the international standards

## COMPLICATED AND PAPER BASED HURDLES DURING ADMISSION

During the admission procedures lots of paper work is required without proper communication due to which it takes very long for foreign students to get admission in the university. Admission procedure as indicated by foreign students is neither easy nor tough. It is average.

## POOR RECOGNITION INTERNATIONALLY

Indian courses do not have a very good reputation abroad. They are recognized poor internationally because of the quality and curriculum contents. It has been proved from the responses of foreign students that the quality of faculty teaching them in DU and JMI is average. It has been proved from survey of the foreign students that the infrastructure of DU and Jamia are below average.
LOTS OF ADMINISTRATIVE GUIDELINES
There are lots of Do's and Don'ts in the administrative guidelines, for staying in the hostel, for studying a course.
INEFFECTIVE CAREER PLACEMENT/LOW INDUSTRY PARTICIPATION IN EDUCATION
Since Indian higher education does not have good market linkages internationally, the career placement of these foreign students is not effective. Infact, there is no career placement for these foreign students in India. During the course of study also, Industry participation is very miniscule or not at all. Theoretical part of the course does not get the practical approach.

## COMPLICATED VISA \& VISA-EXTENSION PROCEDURES

Getting visa for India is not very difficult as it varies from country to country according to the policy of government of India. But of course, it is again a very lengthy procedure with lots of administrative guidelines. But Visa-extension is another big problem for the foreign students, as mostly they have to extend it every year, which becomes a very lengthy procedure requiring lots pf paper work. It has been indicated from the study of foreign students that they do not face problem in getting visa for India but visa-extension is a problem due to lot of paper work and lengthy procedures. Sometimes there exist the communication problem between the officials issuing visa and the foreign students.

## PROSPECTS OF INDIAN HIGHER EDUCATION

Foreign students when surveyed for what is the mode of information about the Indian universities, they have rated the options as follow; (i) Friends (35\%), (ii) senior/present/ex-student of Indian University who belongs to their native country (22\%), (iii) Government (21\%), (iv) Internet (11\%), (v) Indian embassies in their country (6\%) and (vi) Newspaper (5\%). All of these acts as a mode of information for the foreign students about the Indian university and most effective are their friends.
It is indicative from the study that India should pay more attention and take more steps towards the internationalization of higher education. The correlation technique used to co-relate the findings from academicians and the foreign students with different backgrounds, experience, context and probably points of views finds that there exists a high positive correlation, hence strengthening the view that India must pay more attention and take more steps towards the internationalization of higher education. And with the introduction of new courses, which fulfill the present demand at international level, will help to increase the number of foreign students. These courses are courses of yoga, bio-informatics, computational biology, nano-technology, biotechnology, and mathematical science to be introduced in Indian universities to attract more number of foreign students. Other courses suggested are courses in cyber-laws, Hinduism, tourism, chemical engineering, IT and other niche market oriented courses as per the demand. Students have recommended courses with specialization in Information technology, Agriculture, forensic science, maritime, photography, domestic science, International Marketing, Management Information System, Bachelor courses in Management and Computers. They also don't support the annual examination structure. They recommend for the semester-system in all the courses.

## CONTROL MEASURES

There should be a check and balance missionary to keep an eye on the function and quality of education provided by the institutes in India \& foreign countries as proven in the study and it should take corrective measures to improve the system. These measures include: (i) should made a committee to review the system regularly ( $40 \%$ \& $45 \%$ ), (ii) should give a time-period to improve the system ( $28 \%$ \& $33 \%$ ), (iii) should penalize the erroneous institute ( $25 \%$ \& 18\%), (iv) should immediately close the institute with effect of the order ( $7 \%$ \& 4\%). The percentages in the parenthesis belong to academicians and foreign students respectively. The correlation technique used to co-relate the findings from academicians and the foreign students with different backgrounds, experience, context and probably points of views finds that there exists a high positive correlation, hence strengthening the need of check and balance missionary in Indian Higher Education System but there exists no correlation when asked about which corrective measures to improve the system. This can be due to their different backgrounds, different culture, different opinions and different country of origin

## CONCLUSION

Higher education can be thought of as being regulated by market rules. In such an economic view, there is a demand for training and expertise, and universities and other higher education institutions are suppliers in the market in which this demand is voiced. They fund themselves by asking a price for the commodity they offer, and they cater to those who cherish the commodity and are able to pay the price. There is a pressure on higher education institutions to gain at least some of their earnings through selling their product. The relation of such trends to globalizations is clear: this is a case of economic globalization driven by market imperatives.
The prevailing system of higher education in India is not capable of starting a new era and is not competitive at the international level with the exception of few institutes. This system needs a major renovation to stand competitively in this era of globalization.

## REFERENCES

1. en.wikipedia/wiki/Higher-education accessed on $18^{\text {th }}$ May 2006
2. Higher Educational Services (1999), Education services in the GATS scheduling guidelines, www.wto.org.
3. IBRD/World Bank (2000), Higher education in developing countries-peril and promise, p-46
4. Meek, V Lynn (2000), Diversity and marketisation of higher education: incompatible concepts? Higher Education Policy, 13 (2000), p-25 \& 26
5. Philip W \& Stahl C W (2000), International Trade in Higher Education services in the Asia pacific region: trends \& issues, paper presented to the pacific economic cooperation council in $9^{\text {th }}$ annual meeting
6. GECD 2006, UNESCO institute of statistics
7. AmbaniMukesh, 2000, Report on a policy framework on reforms in education, Prime Minister's council on Trade \& Industry, Govt. of India, New Delhi
8. David Arnold (2001), paper prepared for roundtable on Internationalization of higher education in India, AIU, Mysore Karnataka, Institute of International education
9. Altbach Philip G (2000), Knowledge and education as International commodities: the collapse of the common good, International Higher Education
10. Patrick Manu (2000), Educational Marketing, University News, Vol.38, p-3
11. Singh Amrik (1982), Universities and Research, AIU
12. Shah S Y (1986), New Technologies in Higher Education, AIU
13. Singh Amrik\& Sharma G D (1981), Universities and colleges finances, AIU
14. Powar K B (2000), Higher Education for Human Development, AIU
15. Psacharopoulous George \&Woodhall Maureen (1985), Education for development - an analysis of Investment choices.
16. Watkins Kevin (2000), The Oxfam education report, Oxfam publication
17. Allaway William H \&Hallam C Shorrock (1985), Dimensions of International Higher Education, West view press
18. UNESCO (1998), report on Higher Education in the Twentieth First Century Vision \& Actions held at Paris 5-9 ${ }^{\text {th }}$ Oct 1998, UNESCO
19. Country paper (1998), Higher Education in India: Vision \& Action, presented in UNESCO world conference of Higher Education in the Twenty-first century, Paris 5-9 ${ }^{\text {th }}$ Oct 1998, National Commission for Cooperation with UNESCO
20. NegiUshaRai\&BhallaVeena (1999), Effectiveness and Quality in Higher Education, AIU
21. ShafiZeenat S (2001), Reforms and Innovations in Higher Education, AIU
22. ShafiZeenat S (2003), Privatisation of Higher Education, AIU
23. Koul B N \& et al (1998), Studies in Distance Education, AIU
24. Rowntree Derek (1981), A Dictionary of Education
25. Sharma Rita (2004), Assessment and Accreditation in Higher Education, AIU
26. BhallaVeena\& et al (1998), Accountability and Autonomy in Higher Education, AIU
27. Vashishtha K K (2000), Association of Indian Universities, AIU
28. ShafiZeenat S \& K B Powar (2002), Networking of Universities, Research Institutions and Industry, AIU
29. Powar K B (1998), State Funding of Higher Education, AIU
30. Powar K B (1995), Liaison Cells for University-Industry Interaction, AIU
31. Powar K B \& et al (1995), Higher Education in India - in search of quality, AIU
32. Powar K B (2001), Internationalisation of Indian Higher Education, AIU
33. PaniAmarendra (2003), Globalization of Indian Higher Education, AIU
34. Kells H R (1992), Self-regulation in Higher Education - A multinational perspective on Collaborative Systems of Quality Assurance and Control
35. Powar K B \& et al (1997), International Students in Indian Universities, AIU
36. Rajput J.S. (2004), Encyclopedia of Indian Education, NCERT
37. UGC (2001), Xth plan Profile of Higher Education in India, UGC
38. Odin Jaishree K \& et al (2004), Globalization of Higher Education, University of Hawaii Press
39. Altbach Philip G (2000), Comparative Higher Education: Knowledge, the University and Development

# PERFORMANCE APPRAISAL OF CENTRAL COOPERATIVE BANKS IN INDIA IN LIBERAL ECONOMIC SCENARIO 

DR. SUBRATA MUKHERJEE<br>ASST. PROFESSOR IN COMMERCE<br>MUGBERIA GANGADHAR MAHAVIDYALAYA<br>PO - BHUPATINAGAR, EAST MIDNAPORE - 721425

DR. SAMIR GHOSH<br>ASSOCIATE PROFESSOR IN COMMERCE<br>DEPARTMENT OF COMMERCE WITH FARM MANAGEMENT VIDYASAGAR UNIVERSITY<br>WEST MIDNAPORE - 721102


#### Abstract

Cooperative is the panacea for poverty. The cooperative movement in the country originated as a measure against rural poverty, aggravated by chronic indebtedness of the farmers and they were at the mercy of the money lenders. No other credit institutions can be compared with the huge existing potential of the cooperative structure in delivering micro credit for the socio economic growth of the country. There are 371 District Central Cooperative Banks (DCCBs) operating in India and 17 in the state of West Bengal. We have assessed the performance of DCCBs both in India and in West Bengal using trend equations and ratio analysis during the period 1990-1991 to 2006-2007 on the basis of the statistical data published from NABARD and NAFSCOB. The growth rates of different deposits including total deposits of DCCBs in West Bengal were higher than growth rates of different deposits in India. This indicates West Bengal DCCBs collected more deposits than national average. The analysis of advances shows that the amount of advances decreased for the banks in India over the period and in West Bengal there has been increase in the growth rates in the post financial reform period which is also reflected in the CD ratio. The average CD ratio in the post financial reform period for banks in India and in West Bengal are 90.05 and 42.67 respectively which signifies that the banks are having surplus amount of cash. The bank has to pay interest on the borrowings. So, the management has to consider the amount of borrowings so that the spread margin can be increased. Consequently the profit of the bank can also increase. The main source of income of bank is the interest received on the loans and advances and investment made by the bank. The management has to make a separate investment cell to manage the investment professionally and not restrict itself in the traditional ways of managing the investments so that the income of the bank can be increased with minimum risk of investment. For improving the performance of the Central Cooperative Banks suggestions have been made in the area of governance, managerial and financial fronts including endowing functional autonomy and operational freedom to cooperatives, diversification of business, improving the service conditions of the employees and measures for improving the collection of principal and interest components of loans advanced by the banks.


## KEYWORDS

Cooperative, Economy, Bank, Rural, Finance.
HISTORY OF ORIGIN OF COOPERATIVE CREDIT MOVEMENT IN INDIA

$\mathfrak{C}$ooperative is the Panacea to Poverty. Every group of individual, associated to secure a common end by joint effort, may be said to cooperate. Cooperation indicates the association of individuals to secure a common economic goal by honest means. The three pillars on which the cooperative stands upon are honesty, democracy and trust. The basis of the association is voluntary and democratic.
The co-operative movement in the country originated as a measure against rural poverty, aggravated by chronic indebtedness of the farmers and they were at the mercy of the money lenders. Agrarian disturbances in 1875 in the Deccan against the money lenders necessitated the enactment of Taccavi legislation by the government and also led to the concept of the co-operative approach in India. The Northern India Taccavi Loan Act, 1875, the Land Improvement Loans Act, 1883, the Agriculturist Loans Act, 1884 etc were all enacted to facilitate the availability of credit to farmers. In 1892, Sir Federick Nicholson recommended the establishment of rural co-operative credit societies on German pattern. The Famine commission (1901) recommended introduction of co-operatives in the country. In 1904, the Co-operative Credit Societies Act was enacted by the imperial government to facilitate organisation of credit co-operatives and confer upon them special privileges and facilities, the scope of which was subsequently enlarged by the more comprehensive Co-operative Societies Act of 1912 . Under the Government of India Act, 1919 the subject of co-operation was transferred to the provinces which were authorized to enact their own cooperative laws. Under the Government of India Act, 1935, co-operatives remained a provincial subject. Presently, the item "Co-Operative Societies" is a state subject under entry 32 of the state list of the constitution of India. Co-Operative Societies Act, enacted by State Government is now in place in the respective states. In order to administer the operation of co-operative societies where membership was from more than one province, The Government of India enacted the Multi - Unit Co-operative Societies Act, 1942, which was subsequently replaced by the Multi State Co-operative societies act, 1984 under entry 44 of the union list.

## NEED OF COOPERATIVE BANKS IN INDIA

Co-Operative Banking structure has a unique position in the rural credit delivery system of India. The co-operative banking sector especially with their existence of about a century has made significant strides in the field of rural credit. Since then the co-operative credit institutions both in the short and the long term structures continued to play their crucial role in dispensation of credit for agriculture and rural
development. Over the years, they have remained the prime institutional agencies with their vast network, wider coverage and outreach extending to remotest part of the country. Both the short term and long term co-operative credit institutions are basically farmers' organisation primarily meant to meet their credit related requirements, although Commercial Banks and Regional Rural Banks has spread rapidly and they now have more than 50,000 branches their reach in the countryside both in terms of the number of clients and accessibility to the small and marginal farmers and other poorer segments is far less than that of cooperatives. This is a compelling need to find ways for strengthening the cooperative movement and making it a well managed and vibrant medium to serve the credit needs of rural India, especially the small and marginal farmers. Two trends emerge from the overall flow of credit to agriculture from the commercial banking sector. The number of rural branches of commercial banks has gone down marginally as part of the branch rationalization programme. The second trend is that even though the commercial banks almost meet their targets for lending to the priority sector, they have moved more towards larger customers. The average size of direct loans to agriculture in the portfolio of commercial banks was Rs 13,500 in 1997 and Rs 31,585 in 2003. The average size of loans of the Primary Agricultural Credit Societies, in comparison is only Rs 6,637 in 2003. Cooperatives continue to enjoy a place of crucial importance in the rural credit scenario. Some of the niche areas where co-operatives have no competitors and cannot be replaced. The reasons for their existence are as under:

1. These institutions are primarily owned by the farmers, rural artisans etc.
2. They have been set up with the objective of promoting thrift and mutual help.

Co-Operative credit societies at the grass root level are intended not only to cater to credit requirement of the members but also to provide several other credit linked services like input supply, storage and marketing of produce etc. Keeping in view these special features of cooperatives time and again, their role in dispensation of credit and allied services in the rural areas has been emphasized and their relevance underlined by several committees right from the All India Rural Credit Survey Committee in the early 50s to Task Force on Revival of Rural Cooperative Credit Institutions (Vaidyanathan Committee), 2004.

STRUCTURE OF COOPERATIVE CREDIT INSTITUTIONS


Source: Trends and Progress of Banking in India 2007-08
NOTE: Figures in parenthesis indicate the number of institutions at end March'2008 for Urban Cooperative Banks and at end March'2007 for Rural Cooperative Credit Institutions.

OBJECTIVES OF THE STUDY

1. To examine the needs of Cooperative Banks in the present liberal economic scenario in India.
2. To evaluate the progress made by the Cooperative Banks in India and in the State of West Bengal.
3. To recommend appropriate measures for better functioning of the Cooperative Banks operating in India.

## DATABASE

The basic data that are required for the assessment of performance of Central Cooperative Banks are income, expenditure, assets, liabilities, recovery position, staff strength etc. For the purpose of analyzing the performance of Central Cooperative Banks at macro level i.e., in the State of West Bengal and in India we have collected "Statistical Statements Relating to The Cooperative Movements in India- Part I" from NABARD (National Bank for Agriculture and Rural Development) for the period 1990-1991 to 1998-1999 and "Basic Data on Performance of District Central Cooperative Banks" for the period 1999-2000 to 2006-2007 from NAFSCOB (National Federation of State Cooperative Banks Ltd).

## METHODOLOGY

To assess the growth rates of different performance parameters we have fitted two trend equations namely exponential and log quadratic for estimating their nominal growth rates overtime (1990-1991 to 2006-2007). The kinked exponential trend equations have been fitted to the relevant data sets for estimating nominal growth rates of performance parameters / indicators during two sub-periods of 1990-1991 to 19961997 and 1997-1998 to 2006-2007. In 1997-1998 the prudential norms were implemented in Central Cooperative Banks. Financial ratio analysis has been used to assess the liquidity, profitability and efficiency position of the Central Cooperative Banks. The regression equations considered in our study are of linear forms. The least square method or their variances are used to estimate the parameters and the statistical significance of the parameters is tested by applying appropriate tests.

## ASSESSMENT OF PERFORMANCE OF DISTRICT CENTRAL COOPERATIVE BANKS (DCCBs) IN INDIA AND IN WEST BENGAL FROM ECONOMIST'S POINT OF VIEW.

There are 371 DCCBs operating in India and 17 in West Bengal. We have assessed the performance of DCCBs both in India and in West Bengal using trend equations and ratio analysis during the period 1990-1991 to 2006-2007. The analysis of the performance measurement of DCCBs in India and in West Bengal from economist point of view has been done by analyzing the returns of the selected parameters of the Balance Sheet. The result of which is summarized as follows:

## ANALYSIS OF DEPOSITS

The rate of growth of total deposit is $15.50 \%$ and $20.40 \%$ for DCCBs in India and in West Bengal respectively and the growth rate is statistically significant at $1 \%$ probability level. Among the total deposits in the DCCBs in India the fixed deposits growth rate is the highest being 17.20\% followed by the growth rates of savings deposits, others deposits and current deposits being $13.60 \%, 14.50 \%$ and $12.00 \%$ respectively. Among the total deposits in the DCCBs in West Bengal the fixed deposits growth rate is the highest being $23.80 \%$ followed by the growth rates of savings deposits, current deposits and others deposits being $17.80 \%, 14.20 \%$ and $10.10 \%$ respectively. All these growth rates are statistically significant at $1 \%$ probability level. (See Table 1)
A sub-period trend analysis of growth rates of the amount of deposits of the DCCBs in India as a whole shows that in the first sub-period of 1991 to 1997 the annual growth rate of nominal amount of total deposits was $18.40 \%$ which was higher than the growth rate during the second sub-period of 1998 to 2007 (Table 2). These results signify that during the post financial reform period there was fall in the growth rates of all categories of deposits in the DCCBs in India.
A sub-period trend analysis of growth rates of the amount of deposits of the DCCBs in West Bengal as a whole shows that in the first sub-period of 1991 to 1997 the annual growth rate nominal amount of total deposits was $18.00 \%$ which was lesser than the growth rate during the second sub-period of 1998 to 2007 being 22.30 (Table 2). These results signify that during the post financial reform period there was an increase in the growth rates of total deposits, fixed deposits and savings deposits and a fall in the growth rates of current and other deposits in the DCCBs in West Bengal.
The growth rates for DCCBs in India and in West Bengal shows that the people has shifted from fixed deposits to savings and current deposits in post reform period which indicates that the interest cost payable by the banks are less as the interest rates for fixed deposits is higher than the saving or current deposits. Further more the growth rates of different deposits including total deposits of DCCBs in West Bengal were higher than growth rates of different deposits in India. This indicates West Bengal DCCBs collected more deposits than national average amount.

## ANALYSIS OF ADVANCES

The nominal rate of growth of advances is $13.70 \%$ and $14.80 \%$ for DCCBs in India and in West Bengal respectively and the growth rates are statistically significant at $1 \%$ probability level. A sub-period trend analysis of growth rates of advances as a whole shows that in the first subperiod of 1991 to 1997 the annual growth rate of nominal amount of advances were $22.90 \%$ and $13.20 \%$ for banks in India and in West Bengal respectively and in the second sub-period of 1998 to 2007 the annual growth rate of nominal amount of advances were $6.14 \%$ and $16.20 \%$ respectively for banks in India and in West Bengal. This result signifies that during the post financial reform period there has been decline in the advances in the banks at all India level and there has been growth in the rate of advances in the post financial reform period for banks in West Bengal.

Result of the analysis of advances shows that the amount of advances decreased for the banks in India over the period and in West Bengal there has been an increase in the growth rates in the post financial reform period which is also reflected in the CD ratio calculated in Table 3. The DCCBs in West Bengal are mobilizing high volume of deposits in comparatively efficient manner than DCCBs in India. The management has to find out more and more profitable avenues where it can give loan and advances without adversely affecting the risk profile.

## ANALYSIS OF BORROWINGS

The nominal rate of growth of borrowings is $10.20 \%$ and $11.80 \%$ for DCCBs in India and in West Bengal respectively and the growth rates are statistically significant at $1 \%$ probability level. A sub-period trend analysis of growth rates of borrowings as a whole shows that in the first subperiod of 1991 to 1997 the annual growth rate of nominal amount of borrowings were $9.94 \%$ and $7.28 \%$ for banks in India and in West Bengal respectively and in the second sub-period of 1998 to 2007 the annual growth rate of nominal amount of borrowings were $10.30 \%$ and $15.50 \%$ respectively for banks in India and in West Bengal. This result signifies that during the post financial reform period there has been increase in the borrowings in the banks at all India level and in West Bengal.
The result of the trend analysis of borrowings reveals that the bank has increased its borrowings in the post financial reform period. From Table 3 it is found that the CD ratio in the post financial reform period for banks in India and in West Bengal is $92 \%$ and $41 \%$ respectively, which signifies that the bank is having a surplus amount of cash. The bank has to pay interest on borrowings. So, the management has to consider the amount of borrowings so that the spread margin can be increased consequently the profit of the bank will also increase.

## ANALYSIS OF INVESTMENTS

The nominal rate of growth of investments is $32.50 \%$ and $49.70 \%$ for DCCBs in India and in West Bengal respectively and the growth rates are statistically significant at $1 \%$ probability level. A sub-period trend analysis of growth rates of investments as a whole shows that in the first subperiod of 1991 to 1997 the annual growth rate of nominal amount of investments were $40.20 \%$ and $69.20 \%$ for banks in India and in West Bengal respectively and in the second sub-period of 1998 to 2007 the annual growth rate of nominal amount of investments were $26.30 \%$ and $33.80 \%$ respectively for banks in India and in West Bengal. This result signifies that during the post financial reform period there has been a decline in the investments made by the banks at all India level and in West Bengal.
The main source of Income of bank is the interest received on the loans and advances and the investment made by the bank. The management has to make a separate cell to manage the investment professionally and not restrict itself in the traditional ways of managing the investments so that the income of the bank can be increased with minimum risk of investment.
Estimated whole periods' nominal growth rates of different parameters of Balance Sheet of the DCCBs of India and West Bengal as a whole, 1991 to 2007.

Table 1

| Parameters | India |  | West Bengal |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Growth Rate Percentage ${ }^{\text {k }}$ | (+) Acceleration/ (-) Deceleration | Growth Rate Percentage ${ }^{\text {k }}$ | (+) Acceleration/ (-) Deceleration |
| Total Deposit | $\begin{aligned} & 15.50^{*} \\ & (0.004) \end{aligned}$ | $\begin{aligned} & \hline-0.39^{*} \\ & (0.001) \end{aligned}$ | $\begin{aligned} & 20.40^{*} \\ & (0.016) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.247^{*} \\ & (0.004) \end{aligned}$ |
| Fixed Deposit | $\begin{aligned} & 17.20^{\prime} \\ & (0.005) \end{aligned}$ | $\begin{aligned} & -0.72 \\ & (0.001) \\ & \hline \end{aligned}$ | $\begin{aligned} & 23.80^{\prime} \\ & (0.019) \end{aligned}$ | $\begin{aligned} & 0.109^{i} \\ & (0.005) \end{aligned}$ |
| Saving Deposit | $\begin{aligned} & 13.60^{*} \\ & (0.002) \end{aligned}$ | $\begin{aligned} & -0.025^{*} \\ & (0.001) \\ & \hline \end{aligned}$ | $\begin{aligned} & 17.80^{*} \\ & (0.014) \end{aligned}$ | $\begin{aligned} & 0.805^{*} \\ & (0.004) \\ & \hline \end{aligned}$ |
| Current Deposit | $\begin{aligned} & 12.00^{+} \\ & (0.002) \end{aligned}$ | $\begin{aligned} & -0.06^{*} \\ & (0.001) \\ & \hline \end{aligned}$ | $\begin{aligned} & 14.20^{*} \\ & (0.015) \end{aligned}$ | $\begin{aligned} & 0.059^{*} \\ & (0.004) \\ & \hline \end{aligned}$ |
| Other Deposit | $\begin{aligned} & 14.50^{+} \\ & (0.018) \end{aligned}$ | $\begin{aligned} & 0.39^{*} \\ & (0.005) \end{aligned}$ | $\begin{aligned} & 10.10^{*} \\ & (0.025) \end{aligned}$ | $\begin{aligned} & -1.57^{*} \\ & (0.006) \end{aligned}$ |
| Advances | $\begin{aligned} & 13.70^{+} \\ & (0.007) \end{aligned}$ | $\begin{aligned} & -1.04^{*} \\ & (0.002) \end{aligned}$ | $\begin{aligned} & 14.80^{*} \\ & (0.012) \end{aligned}$ | $\begin{aligned} & 0.30^{*} \\ & (0.003) \end{aligned}$ |
| Borrowings | $\begin{aligned} & 10.20^{*} \\ & (0.003) \end{aligned}$ | $\begin{aligned} & -0.021 \\ & (0.001) \\ & \hline \end{aligned}$ | $\begin{aligned} & 11.80^{*} \\ & (0.012) \end{aligned}$ | $\begin{aligned} & 0.78^{*} \\ & (0.003) \end{aligned}$ |
| Investment | $\begin{aligned} & 32.50^{*} \\ & (0.015) \\ & \hline \end{aligned}$ | $\begin{aligned} & -0.994^{*} \\ & (0.004) \end{aligned}$ | $\begin{aligned} & 49.70^{*} \\ & (0.027) \end{aligned}$ | $\begin{aligned} & -2.45^{*} \\ & (0.007) \end{aligned}$ |

Notes:- '*' implies significant at $1 \%$ probability level, ${ }^{\prime * * '}$ implies significant at $5 \%$ probability level, ${ }^{* * * * ' ~ i m p l i e s ~ s i g n i f i c a n t ~ a t ~} 10 \%$ probability level. Growth rates are represented in the form of percent per annum. Growth Rate and Acceleration / Deceleration is calculated using the formula $L_{n} Y_{t}=a+b t+c t^{2}$, where $b$ is the growth rate coefficient and $c$ is the acceleration / deceleration rate coefficient.
Estimated sub-periods' nominal growth rates of different parameters of Balance Sheet of the DCCBs of India as a whole, 1991 to 1997 and 1998 to 2007.

| Parameters | Growth Rate Percentage ${ }^{\text {k }}$ |  | Growth Rate Percentage ${ }^{\text {k }}$ |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |
|  | $1^{\text {st }}$ Sub-Period 1991-1997 | $2^{\text {nd }}$ Sub-Period 1998-2007 | $1^{\text {st }}$ Sub-Period 1991-1997 | $2^{\text {nd }}$ Sub-Period 1998-2007 |
| Total Deposit | $\begin{aligned} & \hline 18.40^{*} \\ & (0.012) \\ & \hline \end{aligned}$ | $\begin{aligned} & 13.10^{*} \\ & (0.010) \end{aligned}$ | $\begin{aligned} & 18.00^{*} \\ & (0.038) \end{aligned}$ | $\begin{aligned} & 22.30^{*} \\ & (0.032) \end{aligned}$ |
| Fixed Deposit | $\begin{aligned} & 22.80^{+} \\ & (0.015) \end{aligned}$ | $\begin{aligned} & 12.60^{*} \\ & (0.012) \end{aligned}$ | $\begin{aligned} & 22.70 \\ & (0.047) \end{aligned}$ | $\begin{aligned} & 24.80^{*} \\ & (0.040) \end{aligned}$ |
| Saving Deposit | $\begin{aligned} & 13.70^{*} \\ & (0.005) \\ & \hline \end{aligned}$ | $\begin{aligned} & 13.40^{*} \\ & (0.004) \end{aligned}$ | $\begin{aligned} & \hline 11.50 \\ & (0.034) \\ & \hline \end{aligned}$ | $\begin{aligned} & 22.90^{*} \\ & (0.029) \\ & \hline \end{aligned}$ |
| Current Deposit | $\begin{aligned} & 12.70^{*} \\ & (0.006) \\ & \hline \end{aligned}$ | $\begin{aligned} & 11.50^{*} \\ & (0.005) \\ & \hline \end{aligned}$ | $\begin{aligned} & 14.20 \\ & (0.036) \\ & \hline \end{aligned}$ | $\begin{aligned} & 14.20^{*} \\ & (0.030) \\ & \hline \end{aligned}$ |
| Other Deposit | $\begin{aligned} & 8.59^{*} \\ & (0.042) \end{aligned}$ | $\begin{aligned} & 19.40^{*} \\ & (0.036) \end{aligned}$ | $\begin{aligned} & 20.40 \\ & (0.066) \\ & \hline \end{aligned}$ | $\begin{aligned} & 1.75^{*} \\ & (0.056) \\ & \hline \end{aligned}$ |
| Advances | $\begin{aligned} & 22.90^{*} \\ & (0.015) \end{aligned}$ | $\begin{aligned} & \hline 6.137^{*} \\ & (0.013) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 13.20 \\ & (0.029) \end{aligned}$ | $\begin{aligned} & 16.20^{*} \\ & (0.025) \end{aligned}$ |


| Borrowings | $9.94^{*}$ | $10.30^{*}$ | 7.28 | $15.50^{*}$ |
| :--- | :--- | :--- | :--- | :--- |
|  | $(0.008)$ | $(0.006)$ | $(0.033)$ | $3.028)$ |
| Investment | $40.20^{*}$ | $26.30^{*}$ | 69.20 | $\left(0.80^{*}\right.$ |
|  | $(0.039)$ | $(0.033)$ | $(0.070)$ | $(0.060)$ |

Notes:- Sub-Periods' growth rates are estimated by fitting kinked exponential trend (shifting origin to the break point i.e., the joining point of two sub-periods): $L_{n} Y_{t}=1+b_{1} D_{1} t+b_{2} D_{2} t$. [Where dummy variable $D_{1}=1$ for $j$ th sub-period and 0 for the other sub-period; $j=1,2, \ldots$. ]. Others are same as those mentioned in the above Table.
ASSESSMENT OF PERFORMANCE OF DISTRICT CENTRAL COOPERATIVE BANKS (DCCBs) IN INDIA AND IN WEST BENGAL FROM ACCOUNTING

## POINT OF VIEW

At the macro level analysis of the performance measurement of DCCBs in India and West Bengal from accounting point of view has been done by analyzing selected ratios calculated from the published statistical data from NABARD and NAFSCOB for the period 1990-1991 to $2006-2007$. The average percentage of cost of management to working capital in India is 3.01 and that in West Bengal is 2.76 . The volume of transactions handled by the cooperative banks far exceeds than the other credit institutions. The cost of management can be reduced through upgrading the technology and through proper training of the staffs.
The recovery percentage is far less satisfactory than what it should be. The loan waiver scheme of the Government of India had made this condition more miserable. The average recovery percentage in India is 64.71 and that in West Bengal is 71.06 . Without high recovery of loans the banks will not be in a position to give further loan and this will lead to decrease in profitability of the banks.
The main source of revenue of banks is the interest received on loans and advances disbursed by the banks. The loans and advances are issued from the amount received as deposits and borrowings made by the banks. The CD ratio indicates how much of the deposits have been utilized by the banks in disbursement of loans and advances. The average CD ratio in West Bengal is 53.45 and in India is around 97.67 . It is to be noted that in India CD ratio is quite high during the pre-liberal period but since the recovery is very less the CD ratio declined to 74.91 in 2004.
The average percentages of deposits to working capital are around 62.61 in India and 68.02 in West Bengal. The banks should increase the deposit mobilization and can utilize for increasing in business by diversification to non-agricultural activities.
The interest paid on borrowings is a cost to the banks and so the banks should go for less borrowing when they are not able to utilize the amount of deposits mobilized by them. The average percentage of borrowings to working capital is 21.08 in India and 10.35 in West Bengal.
The average percentages of loans issued to working capital are 60.92 in India and 35.68 in West Bengal. Only $76 \%$ of the total number of District Central Cooperative Banks operating in India and $46 \%$ of the total number of District Central Cooperative Banks operating in West Bengal as on 31.03.2007 are running in profits. So to increase the amount of profits these banks has to find avenues where the funds can be utilized with minimal risks and should also have proper monitoring of loans.
The average percentage of investment to working capital is 17.43 in India and 24.64 in West Bengal. Since the amount of investment is increasing over the years, the banks should have a separate investment cell to look after proper investment of the surplus fund available with the banks and can earn a substantial interest on the investment made by the banks.

Table 3

| Year | Cost of Management to Working Capital |  | Percentage of Recovery |  | CD Ratio |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | All India | West Bengal | All India | West Bengal | All India | West Bengal |
| 1991 | 2.76 | 2.42 | 66.10 | 59.90 | 99.13 | 66.07 |
| 1992 | 2.12 | 2.44 | 51.72 | 63.22 | 85.73 | 65.49 |
| 1993 | 2.77 | 3.54 | 61.96 | 68.27 | 107 | 76.46 |
| 1994 | 2.78 | 3.33 | 63.60 | 69.57 | 94 | 65.48 |
| 1995 | 2.59 | 3.08 | 65.13 | 75.37 | 101 | 69.87 |
| 1996 | 2.57 | 2.63 | 67.52 | 72.76 | 144 | 77.83 |
| 1997 | 2.62 | 2.62 | 67.63 | 72.34 | 128 | 60.77 |
| 1998 | 2.72 | 2.66 | 67.47 | 71.04 | 119 | 53.42 |
| 1999 | 2.86 | 2.46 | 67.10 | 70.07 | 106 | 49.89 |
| 2000 | 3.09 | 1.98 | 64.26 | 74.66 | 93 | 36.14 |
| 2001 | 2.97 | 1.82 | 64.90 | 78.89 | 92 | 34.66 |
| 2002 | 2.84 | 1.75 | 62.57 | 64.00 | 82 | 36.81 |
| 2003 | 2.98 | 3.42 | 63.10 | 56.93 | 75 | 37.42 |
| 2004 | 2.82 | 3.10 | 67.13 | 77.70 | 81 | 48.75 |
| 2005 | 3.00 | 3.48 | 68.31 | 79.31 | 80.00 | 43.09 |
| 2006 | 4.59 | 3.25 |  | 80.56 | 83.30 | 52.13 |
| 2007 | 5.17 | 2.91 |  |  |  |  |


| Year | \%age of Deposit to Working Capital |  | \%age of Borrowings to Working Capital |  | \%age of Loans Issued to Working Capital |  | \%age of Investment to Working Capital |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | All India | West Bengal | All India | West Bengal | All India | West Bengal | All India | West Bengal |
| 1991 | 54.81 | 60.81 | 27.19 | 14.04 | 54.34 | 40.18 | 3.53 | 0.88 |
| 1992 | 54.60 | 61.85 | 28.11 | 13.17 | 46.81 | 40.51 | 3.72 | 0.85 |
| 1993 | 56.18 | 61.07 | 26.86 | 13.04 | 59.95 | 46.70 | 3.54 | 0.82 |
| 1994 | 59.94 | 60.69 | 24.00 | 14.68 | 56.63 | 39.73 | 4.75 | 8.02 |
| 1995 | 58.53 | 63.19 | 24.77 | 13.78 | 59.18 | 44.15 | 5.48 | 5.93 |
| 1996 | 59.35 | 65.00 | 24.14 | 13.52 | 85.70 | 50.59 | 9.42 | 12.93 |
| 1997 | 62.45 | 67.73 | 20.98 | 11.40 | 80.13 | 41.16 | 10.66 | 13.12 |
| 1998 | 64.56 | 68.76 | 19.66 | 10.49 | 76.51 | 36.73 | 13.70 | 13.64 |


| 1999 | 65.87 | 70.25 | 18.40 | 8.54 | 69.95 | 35.04 | 15.90 | 22.69 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 2000 | 67.77 | 75.06 | 18.11 | 5.31 | 62.74 | 27.13 | 27.39 | 40.68 |
| 2001 | 69.03 | 74.36 | 18.50 | 5.12 | 62.30 | 25.78 | 27.34 | 41.53 |
| 2002 | 65.47 | 77.05 | 17.91 | 4.81 | 60.09 | 26.45 | 27.76 | 48.38 |
| 2003 | 66.36 | 72.05 | 17.64 | 5.92 | 54.26 | 26.52 | 28.54 | 46.26 |
| 2004 | 64.73 | 71.34 | 17.74 | 6.37 | 48.49 | 26.69 | 30.05 | 46.12 |
| 2005 | 65.62 | 69.58 | 17.58 | 10.76 | 53.29 | 33.91 | 28.36 | 38.80 |
| 2006 | 66.02 | 69.09 | 17.68 | 12.24 | 52.82 | 29.77 | 28.29 | 32.87 |
| 2007 | 63.03 | 68.40 | 19.13 | 12.80 | 52.51 | 35.67 | 27.92 | 45.36 |

## SUGGESTIONS

Based on observations and finding from reports of various committees on cooperative banks and from our research work we present a consolidated proposals and suggestions for the improvement and betterment in the working of Central Cooperative Banks operating in India.

- The reach of commercial banks and regional rural banks in the countryside both in terms of the number of clients and accessibility to the small and marginal farmers and other poorer segments is far less than that of cooperatives. This is a compelling need to find ways for strengthening the cooperative movement and making it a well managed and vibrant medium to serve the credit needs of rural India, especially the small and marginal farmers.
- The Cooperative Credit Structure (CCS) is today impaired in governance, managerial and financial fronts. Examples of impairment on governance include non-conduct of elections for a long time, frequent supersession of Boards, delay in audit, states' intrusion in administrative and financial management. The impairment of management includes deputation of government officials to top positions in many banks, setting up the common cadre system for PACS, determination of staffing pattern by states, interference in the operational decision making of cooperatives, an ageing staff profile, poor housekeeping and weak MIS. Apart from the above even the supervision and the prudential regulation of cooperative banks is not as stringent as it is for commercial banks. So, through professional management and implementation of governance in the working can only enhance the financial viability of these institutions.
- To remove the overlapping controls and endowing functional autonomy and operational freedom to cooperatives. In case of the commercial banks the supervision and control is made by Reserve Bank of India (RBI). Whereas there are three governing, supervising, regulating and controlling the cooperative credit institutions namely National Bank for Agriculture and Rural Development (NABARD), respective State Government and RBI. Populist government policy also adversely affects the financial sustainability of these banks. The waiver of interest and principal amount of agricultural loan by the government without commensurate compensation to the cooperative credit institution not only hinder financially but also develop the attitude of non payment of interest and principal amount of loan by the farmers in future.
- Diversification of the business products with improved service is essential for sustainability of banks through greater business volumes and improved productivity. Diversification of business from banking to non banking activities like taking the corporate agency of Life Insurance Corporation of India and one of the subsidiaries of the General Insurance Corporation of India or any other leading insurance company.
- Duration of credit cycle depends on the past experiences of the regions which are generally prone to natural calamities. A credit scheme should be developed to break the vicious cycle of low productivity, low income, low surplus and low investment.
- Miscellaneous income of the cooperative banks is meager. Miscellaneous income mainly consists of non-fund based income. Non-fund business volume is to be increased. Non-fund business includes draft issuing commission, commission on salary disbursement of the clients, locker rent, commission on issuing of different types of forms and prospectus of various organisations etc. In non-fund business, no monetary capital is to be invested for earning income like commission, rent etc. Hence, these incomes directly contribute to the profit. Therefore, to improve the bank's profitability position volume of non-fund business is to be increased and in some cases to be newly introduced, if necessary.
- Management should follow suitable investment strategy, improving its infrastructure. There must be separate consultancy cell in the area of taxation, security market management (to study the volatility in risk and return), legal aspects etc. The experts will study the volatility of the security market and other related areas of the investment from time to time and give suggestions to the top management for taking necessary actions. They will also give advice to the branch personnel for investment of surplus fund of the branches. We know that the investment risk and return are two contradictory elements. Highly secured securities have low rate of return and vice-versa. At present there is no separate investment cell in the bank to study the different types of security risks and return. Therefore, to maximize the investment return at moderate risk a separate investment cell is to be build up for continuous monitoring the investment market. Moreover, some autonomy is to be given to branch managers for investing their surplus fund in the profitable areas. So, to increase the interest income on investment suitable investment policy has to be implemented.
- Cooperative banks are doing their business in rural sectors and most of the customers in rural sector are either illiterate or semi-literate. Therefore, to attract more and more customers better customers services like quick disbursement of loans, explanation of the terms and conditions of the deposits and loans, filling up the documents etc are to be given.
- In order to provide insurance coverage to the unorganized sector Gramin Accidental Policy (GAP) is introduced where premium for GAP is deducted from the amount of loan provided to the farmers. For unnatural death, partial and total disability, compensation is provided to the family members of the farmers through PACs but the major drawback is due to the ignorance of the farmers resulting non reporting to the PACs and non-submission of the requisite documents in due time. Steps should be taken for timely reporting and disbursal of the claim.
- Premium for crop insurance is also deducted from the loan given to the farmers. When disaster takes place mainly due to heavy rain, the loss to farmers are compensated from crop insurance. The main drawback of this scheme is that due to large number of farmers the compensation is not received by all of them. Steps should be taken for commensurate compensation of loss incurred by the farmers.
- The volume of the business of the PACS can be increased through proper training of the personnel. Computerization of the PACS can enhance the level of transparency and timely reporting which can help in taking decisions timely.
- The loans issued by Central Cooperative Banks are mainly to priority sectors. There is a compulsion by the RBI to issue loans to priority sector but the bank can give loans to the non-priority sectors after the prescribed level for priority sectors. The priority sectors are more vulnerable and the recovery is also low in comparison to the loans recovered from non-priority sector. In these days of competition it is found that most of the other rural banks have switched their loan portfolio from priority sector to non-priority sector over and above the prescribed level for priority sector to earn excess return on their investment. Hence to increase the bank's CD ratio and to maximize the bank's profitability the surplus amount can be invested in non-priority sector. We have seen that the loan taken by the farmers are utilized for personal loan repayment, for maintenance of family, for business and other purposes from the loan amount which has been taken in the name of agricultural loan. We cannot expect a linear correlation between the purposes of loan amount taken with the utilization of the loan amount. So, for general economic upliftment of the socio-economic condition it is very essential that the banks give loan for other purposes also.
- The PACS are mainly engaged in disbursement of agricultural loan. Since, the area of operation are limited they can go in for diversification of business like opening of consumer cooperative (including opening of retail outlets for public distribution system), wholesale distribution of fertilizers and feed for fishes etc. The concept of PURA that is providing urban facilities to rural areas as advocated by our ex-president A.P.J.Kalam on India 2020 - A vision for the New Millennium can be achieved through the ground level credit societies. Many PACS serve as retail outlet for public distribution system in traditional methods. Modern marketing concept must be used in upgrading and developing this system. The modern concept of packaging like selling the same quality of product in small quantity has enable to expand the customer base. These societies can serve as retail outlet for various consumer goods. The present situation is that the secretary is the honorary member, the service condition of the employees are not at all satisfactory with the current economic situation of increase in price level. The greatest advantages of these societies are the existence of the infrastructure including land and building. The only requirement is the adoption of suitable policy and its proper implementation.
- The service conditions of the employees of the PACS are not satisfactory and are ill paid. This also forces them to engage in unfair practices. In order to motivate the people engage in the cooperative societies the business diversification is very essential simultaneously the salary of the employees can be linked with the performance of the business i.e. the salary should comprised of two parts - one fixed and the other variable, which can be a certain percentage on the disbursement and collection of loans. This can help to act as surveillance on the utilization of the loan and timely collection. "Follow-up" action is very essential for the collection of the loan and interest there upon, this can be effectively done by the employee of the societies who disburse the loan. Lack of Follow up action is a major reason for non-collection of principal and interest of loan.
- In order to motivate the loanees in timely payment of interest and principal amount of loan interest subsidy can be given to those loanees who pay the interest and repay the loan timely. The interest subsidy can be a certain percentage of the profit of the PACS which can be given after discussion in the general meeting. It may be argued that the giving of interest subsidy will lead to the decrease in the profitability of the PACS. The working capital cycle which varies from six month to one year can be reduced. This can help these credit societies in reducing the working capital cycle and blocking of funds.
- The documentation of the annual reports should be more transparent and be framed in tune with the commercial banks. It should cover the steps being taken for better implementation of the corporate governance. The maintenance of accounts should be more detailed. The PACS and the Central Cooperative Banks are not maintaining the accounts using the same principle. The actual loan overdue in the societies is different from the actual loan overdue for the same society in the books of the Central Cooperative Bank. So, the maintenance of accounts of the Central Cooperative Banks and its constituent PACS should follow same principle and the difference in accounting policy is not desirable.


## BIBLIOGRAPHY

Various issues of NAFSCOB Bulletin, Banking Finance, Economic and Political Weekly.
Annual Report - NABARD, RBI, WBSCB Ltd, MCCB Ltd.
Statistical Data relating to Co-operative Movement in India - Part I Credit Societies - NABARD.
Various issues of Trends and Progress of Banking in India.
Various issues of Currency and Finance.
D’Silva, John.(2003), "Corporate Governance in Co-Operative Banks." - Banking Finance, February, Kolkata, Pp.29-30.
Kumar, K.Ram.(2003), "Urban Co-Operative Banks." - Banking Finance, February, Kolkata, Pp.31-32.
Chandra, A. Sarat.(1996), "Changing Scenario of Rural Banking." - Banking Finance, November, Kolkata, Pp.10-13.
Roy, Partha, Pratim.(1999), "Urban Co-operative Banks - Past, Present and Future." - Banking Finance, December, Kolkata, Pp.7-9.
Himachalam, D. and Janardhanam, K.(2002), "Indian Co-operative Sector in the New Millennium: Prospects and challenges." - Banking Finance, January, Kolkata, Pp.9-13.
Mehta, Sangita.(2001), "Co-Operative Banks." - Banking Finance, July, Kolkata, Pp.24-25.
Prakash, Daman.(1991), "Strength of a Co-operative Institution" - Banking Finance, March, Kolkata, Pp.23-24.
Kulandaiswamy, V.(1990), "Value System in Co-operatives: A perspective" - Banking Finance, September, Kolkata, Pp.27-29.
Singh, S.K., Singh, R.P., Pandey, A.K.(2001), "Rural Credit and Participation of Credit Agencies - An Analysis." - Banking Finance, November, Kolkata, $\mathrm{P}_{\mathrm{p}}$.10-13.
Mudgal, M.K.(1999), "Co-operatives at Cross Roads" - Banking Finance, February, Kolkata, Pp.35-39.
Vaikunthe, L.D.(1994), "Agricultural Co-operative Credit Utilization and Recovery Performance" - Banking Finance, May, Kolkata, Pp.7-9.
Reddeppa, Reddy, A., Sivarani, Reddy, C., Sakriya, D.(1996), "Performance Appraisal of Co-operative Banks - A Case Study" - Banking Finance, March, Kolkata, Pp.3-8.
Pradeep, U.(2003), "Rural Credit Challenges and Strategies." - Banking Finance, August,.
Pitre, Vidya.(2003), "Urban Cooperative Banks: Issues \& Prospects." - Economic \& Political Weekly, April 12; .
Hazra, Sujan.(2002), "Deposit Insurance for Co-operative Banks: Is there a Road ahead" -Economic and Political Weekly, November 30,.
Joshi, N.N.(2003), "WTO vis-à-vis Cooperative Credit Institution." - NAFSCOB Bulletin, January-March,.
Narayana, D.(1993), "Financial Sector Reforms - Is there a strategy for agricultural credit." - Economic and Political Weekly

# ROLE OF INFLATION IN INVESTMENT DECISIONS - AN ANALYTICAL STUDY 

DR. SAMBHAV GARG<br>ASST. PROFESSOR<br>M. M. INSTITUTE OF MANAGEMENT MAHARISHI MARKANDESHWAR UNIVERSITY MULLANA - 133203


#### Abstract

In today's complex business environment, making capital budgeting decisions are among the most important and multifaceted of all management decisions as it represents major commitments of company's resources and have serious consequences on the profitability and financial stability of a company. It is important to evaluate the proposals rationally with respect to both the economic feasibility of individual projects and the relative net benefits of alternative and mutually exclusive projects. The growing internationalization of business brings stiff competition which requires a proper evaluation and weightage on capital budgeting appraisal issues viz. different project life cycle, impact of inflation, analysis and allowance for risk. Therefore financial managers must consider these issues carefully when making capital budgeting decisions. Inflation is one of the important parameters that govern the financial issues on capital budgeting decisions. This paper aims to analyze the issues in the area of effects of inflation on capital budgeting decisions for optimum utilization of scarce resources.


## KEYWORDS

Capital Budgeting Decisions, Financial Stability, Economic Feasibility.

## INTRODUCTION

$\mathfrak{A l}$anagers evaluate the estimated future returns of competing investment alternatives. Some of the alternatives considered may involve more risk than others. For example, one alternative may fairly assure future cash flows, whereas another may have a chance of yielding higher cash flows but may also result in lower returns. It is because, apart from other things, inflation plays a vital role on capital budgeting decisions and is a common fact of life all over the world. Inflation is a common problem faced by every finance manager which complicates the practical investment decision making than others. Most of the managers are concerned about the effects of inflation on the project's profitability. Though a double digit rate of inflation is a common feature in developing countries like India, the manager should consider this factor carefully while talking such decisions.
In practice, the managers do recognize that inflation exists but rarely incorporate inflation in the analysis of capital budgeting, because it is assumed that with inflation, both net revenues and the project cost will rise proportionately, therefore it will not have much impact. However, this is not true; inflation influences two aspects viz. Cash Flow, Discount Rate and hence this study is an attempt to analyze the issues in the area of effects of inflation on capital budgeting decision for optimum utilization of scarce resources. In discussing how the inflation effects on capital budgeting decision, this paper has been divided into two parts. In the first part, discussion is about inflation, how to measure the inflation and the effects of inflation on GDP. In the second part, effects on inflation of capital budgeting decisions, comprising how to deal with expected and unexpected inflation while forecasting cash flows and determining the discount rate in particular.

## OBJECTIVES OF THE STUDY

To analyse the impact of inflation on investment decision
To examine and analyse the degree of risk associated with inflation and capital Budgeting
To suggest some measures for taking sound Investment decisions

## RESEARCH METHODOLOGY

The study is Descriptive in nature; therefore the statistics have been obtained from different reliable sources such as news papers, Journals, Magazines etc.

## OVERVIEW OF INFLATION

Everyone is familiar with the term 'Inflation' as rising prices. This means the same thing as fall in the value of money. For example, a person would like to busy 5 Kgs of apple with Rs. 100, at the present rate on inflation, say, zero. Now when the inflation rate is $5 \%$, then the person would require Rs. 105 to buy the same quantity of apples. Thus, Inflation is a monetary aliment in an economy and it has been defined in so many ways, which can be defined as "the change in purchasing power in a currency from period to period relative to some basket of goods and services."
When analyzing Capital Budgeting Decision with inflation, it is required to distinguish between expected and unexpected inflation. The difference between unexpected and expected inflation is of crucial importance as the effects of inflation, especially its redistributive effect, depend of whether it is expected or not. Expected inflation refers to the loss the manger anticipates in buying power over time whereas unexpected inflation refers to the difference between actual and expected inflation. If rate of inflation is expected, then the manager take steps to make suitable adjustments in their proposals to avoid the adverse effects which could bring to them.

## MEASURING INFLATION

Inflation is measured by observing the change in the price of a large number of goods and services in an economy, usually based on data collected by government agencies. The prices of goods and services are combined to give a price index or average price level, the average price
of the basket of products. The inflation rate is the rate of increase in this index; while the price level might be seen as measuring the size of a balloon, inflation refers to the increase in its size. There is no single true measure of inflation, because the value of inflation will depend on the weight given to each good in the index.
The common measures of inflation include Consumer price indexes (CPIs), Producer price indexes (PPI s), Wholesale price index (WPIs), commodity price indexes, GDP deflator, and Employment cost index. Table showing the rate of inflation in India (2000-2008) based on WPI, based on CPI and growth rate in GDP is given table 1 .

TABLE 1: RATE OF INFLATION IN INDIA (2000-2008)

| Year | Based on WPI | Based on CPI | Growth rate in GDP |
| :--- | :--- | :--- | :--- |
| 2000 | 4.9 | 2.5 | 4.4 |
| 2001 | 1.6 | 5.2 | 5.6 |
| 2002 | 4.4 | 3.2 | 4.4 |
| 2003 | 3.4 | 2.27 | 4.5 |
| 2004 | 5.5 | 2.68 | 8.5 |
| 2005 | 6.5 | 3.39 | 6.5 |
| 2006 | 4.4 | 3.24 | 8.6 |
| 2007 | 5.4 | 2.85 | 8.9 |
| 2008 | 4.6 | 3.85 | 8.8 |

Source: Indiabudget.nic.in

## INFLATION AND GROSS DOMESTIC PRODUCT (GDP)

Inflation and GDP growth are probably the two most important macroeconomic variables. The Gross Domestic Product (GDP) is the key indicator used to measure that health of a country's economy. The GDP of a country is defined as the market value of all final goods and services produced within a country is defined as the market value of all final goods and services produced within a country in a given period of time. Usually, GDP is expressed as a comparison to the previous quarter or year. For example, if the year-to-year GDP was up by $3 \%$, it means that the economy has grown by $3 \%$ over the last year.
A significant change in GDP, whether increase or decrease, usually reflects on the stock market. The reason behind this is that, a bad economy usually means lower profits for companies, which in turn means lower stock prices. Investors really worry about negative GDP growth. Therefore growth in GDP reflects both on growth in the economy and price changes (inflation). GDP deflator is based on calculations of the GDP: it is based on the ratio of the total amount of money spent on GDP (nominal GDP) to the inflation corrected measure of GDP (constant price of real GDP). It is the broadest measure of the price level. Deflators are calculated by using the following formula:


Current price figures measure value of transaction in the prices relating to the period being measured. On the other hand, Constant price figures express value using the average prices of a selected year, this year is known as the base year. Constant price series can be used to show how the quantity or volume of goods has changed, and are often referred to as volume measure. The ratio of the current and constant price series is therefore a measure of price movement, and this forms the basis for the GDP deflator. The GDP deflator shows how much a change in the base year's GDP relies upon changes in the price level. It is also known as the "GDP implicit price deflator". Because it isn't based on a fixed basket of goods and services, the GDP deflator has an advantage over the Consumer Price Index. Change in consumption patterns or the introduction of new goods and services are automatically reflected in the deflator.

## INFLATION AND CAPITAL BUDGETING DECISIONS

Capital budgeting results would be unrealistic if the effects of inflation are not correctly factored in the analysis. For evaluating the capital budgeting decisions; we require information about cash flows-inflows as well as outflows. In the capital budgeting procedure, estimating the cash flows is the first step which requires the estimation of cost and benefits of different proposals being considered for decision-making. The estimation of cost and benefits may be made on the basis of input data being provided be experts in production, marketing, accounting or any other department. Mostly accounting information is the basis for estimating cash flows. The Managerial Account's task is to design the organization's information systems or Management Accounting System (MAS) in order to facilitate managerial decision making. MAS parameters have to be designed on the basis for commonalities in the decision process of executives involved in strategic capital budgeting decisions.

## INFLATION AND CASH FLOWS

As mentioned above, estimating the cash flows is the first step which requires the estimation of cost and benefits of different proposals being considered for decision-making. Usually, two alternatives are suggested for measuring the 'Cost and benefits of a proposal i.e., the accounting profits and the cash flows. In reality, estimating the cash flows is most important as well as difficult task. It is because of uncertainty and accounting ambiguity.
Accounting profit is the resultant figure of the basis of several accounting concepts and policies. Adequate care should be taken while adjusting the accounting data, otherwise errors would arise in estimating cash flows. The term cash flow is used to describe the cash oriented measure of return, generated by a proposal. Though it may not be possible to obtain exact cash-effect measurement, it is possible to generate useful approximations based of available accounting data. The costs are denoted as cash outflows whereas the benefits are denoted as cash inflows. The relation between cash flows and Accounting Profit is discussed in the subsequent Para, before a detailed discussion of effect of Inflation and cash flows is done.

## CASH FLOWS VS ACCOUNTING PROFIT

The evaluation of any capital investment proposal is based on the future benefits accruing for the investment proposal. For this, two alternative criteria are available to quantify the benefits namely, Accounting Profit and Cash flows. This basic difference between them is primarily due the inclusion of certain non-cash items like depreciation. This can be illustrated in the Table2:
TABLE 2: A COPARISON OFCASH FLOW AND ACCOUNTING PROFIT APPROACHES

| Accounting Approach | Cash flow Approach |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :---: |
| Particulars | Rs. | Rs. | Particulars | Rs. | Rs. |  |
| Revenue |  | 1000 | Revenue |  | 1000 |  |
| Less: Expenses |  |  | Less: Expenses |  |  |  |
| Cash Expenses | 400 |  | Cash Expenses | 400 |  |  |
| Depreciation | 200 | 600 | Depreciation | 200 | 600 |  |
| Earnings Before Tax |  | 400 | Earnings Before Tax |  | 400 |  |
| Tax @ 50\% |  | 200 | Tax |  | 200 |  |
| Earning after Tax |  | 200 | Earning after Tax |  | 200 |  |
|  |  |  | Add: Depreciation |  | 200 |  |
|  |  |  | Cash flow |  | 400 |  |

## EFFECTS OF INFLATION ON CASH FLOWS

Often there is a tendency to assume erroneously that, when, both net revenues and the project cost rise proportionately, the inflation would not have much impact. These lines of arguments seem to be convincing, and it is correct for two reason. First, the rate used for discounting cash flows is generally expressed in nominal terms. It would be inappropriate and inconsistent to use a nominal rate to discount cash flows which are not adjusted for the impact of inflation. Second, selling prices and costs show different degrees of responsiveness to inflation. Estimating the cash flows is a constant challenge to all level of financial managers. To examine the effects of inflation on cash flows, it is important to note the difference between nominal cash flow and real cash flow. It is the change in the general price level that creates crucial difference the two.
A nominal cash flow means the income received in terms rupees. On the other hand, a real cash flow means purchasing power of your income. The manager invested Rs. 100000 in anticipation of 10 per cent return at the end of the year. It means that the manager will get Rs. 11000 after a year irrespective of changes in purchasing power of money toward goods or services. The sum of Rs. 11000 is known as nominal terms, which includes the impact of inflation. Thus, Rs. 11000 is a nominal return on investment of the manager. On the other hand, (Let us assume the inflation rate is 5 per cent in next year. Rs. 11000 next year and Rs. 10476.19 today are equivalent in terms of the purchasing power if the rate of inflation is 5 per cent.) Rs. 476.19 is in real terms as it adjusted for the effect of inflation. Though the manager's nominal rate of return is Rs. 1000 , but only Rs. 476 is real return. The same has been discussed with capital budgeting problem.
ABC Ltd is considering a new project for manufacturing of toys involving a capital outlay of Rs. 6 Lakhs. The capacity of the plant is for an annual production capacity 60000 toys and the capacity utilization is during the 3 Years working life of the project is indicated below:

| Year | 1 | 2 | 3 |
| :--- | :--- | :---: | :--- |
| Capacity Utilization | 60 | 75 | 100 |

The selling price per toy is Rs. 15 and contribution is 40 per cent. The annual fixed costs, excluding depreciation are to be estimated Rs. 28000 per annum. The depreciation is 20 per cent and straight line method. Let us assume that in our example the rate of inflation is expected to be 5 per cent.

TABLE 3: A COMPARISION OF REAL CASH FLOW AND NOMINAL CASH FLOW
TABLE 3: A COMPARISION OF REAL CASH FLOW AND NOMINAL CA

| Particulars/Year | 1 | 2 | 3 |
| :--- | :--- | :--- | :--- |
| Sales Revenue | 360000 | 450000 | 600000 |
| Less: Variable Cost | 216000 | 270000 | 360000 |
| Depreciation | 120000 | 120000 | 120000 |
| Fixed Cost | 28000 | 28000 | 28000 |
| Earning before Tax | 4000 | 32000 | 100000 |
| Tax @ 50\% | - | 16000 | 50000 |
| Profit after tax | - | 16000 | 50000 |
| Real Cash flow | 116000 | 136000 | 170000 |
| Inflation Adjustment | $(1.05)^{1}$ | $(1.05)^{2}$ | $(1.05)^{3}$ |
| Nominal Cash flow | 121800 | 149940 | 196796 |

Therefore, the finance manager should be consistent in treating inflation as the discount rate is market determined. In addition to this, a company's output price should be more than the expected inflation rate. Otherwise there is every possibility is to forego the good investment proposal, because of low profitability. And also, future is always unexpected, what will be the real inflation rate (may be more or less). Thus, in estimating cash flows, along with output price, expected inflation must be taken into account. In dealing with expected inflation in capital budgeting analysis, the finance manager has to be very careful for correct analysis. A mismatch can cause significant errors in decision making. Therefore the finance manager should always remember to match the cash flows and discount rate as mentioned below.

TABLE 4: MATHC UP CASH FLOWS AND DISCOUNT RATE

| Cash flows | Discount rate | Yields |
| :--- | :--- | :--- |
| Nominal Cash flow | Nominal discount rate | Present Value |
| Real cash flow | Real discount rate | Present Value |

## INFLATION AND DISCOUNT RATE

The discount rate has become one of the central concepts of finance. Some of its manifestations include familiar concepts such as opportunity cost, capital cost, borrowing rate, lending rate and the rate of return on stocks or bonds ${ }^{11}$. It is greatly influenced in computing NPV. The selection of proper rate is critical which helps for making correct decision. In order to compute net present value, it is necessary to discount future benefits and costs. This discounting reflects the time value of money. Benefits and costs are worth more if they are experienced sooner. The higher the discount rate, the lower is the present value of future cash flows.
For typical investment, with costs concentrated in early periods and benefits following in later periods, raising the discount rate tends to reduce the net present value. Thus, discount rate means the minimum requisite rate of return on funds committed to the project. The primary purpose of measuring the cost of capital is its use as a financial standard for evaluating investment projects.

## EFFECTS OF INFLATION ON DISCOUNT RATE

Using of proper discount rate depends on whether the benefits and costs are measured in real or nominal terms. To be consistent and free from inflation bias, the cash flows should match with discount rate. Considering the above example, 10 per cent is a nominal rate of return on investment of the manager. On the other hand, (Let us assume the inflation rate is 5 per cent, in next year), though the manager's nominal rate of return is 10 per cent, but only 4.76 percent is real rate of return. In order to receive 10 per cent real rate of return, in view of 5 per cent expected inflation rate, the nominal required rate of return would be $15.5 \%$. The nominal discount rate ( $r$ ) is a combination of real rate ( $K$ ), expected inflation are ( $\alpha$ ). This relationship is known as Fisher's effect, which may be stated as follows:

$$
r=(1-K)(1-\alpha)-1
$$

The relationship between the rate of return and inflation in the real world is a though task to explain than the theoretical relationship described above. Experience shows that deflation of any series of interest rates over time by any popular price index does not yield relatively constant real rates of interest. However, this should not be interpreted as the current rate of interest is properly adjusted or the actual rate of inflation, but only that it will contain some expected rate of inflation. Furthermore, the ability of accurately forecasting the rate of inflation is very rare.

## IMPLICATIONS

It is noted from the above analysis; effects of inflation significantly influence the capital budgeting decision making process. If the prices of outputs and the discount rates are expected to rise at the same rate, capital budgeting decision will not be neutral. The implications of expected rate of inflation on the capital budgeting process and decision making are as follows:

1. The company should raise the output price above the expected rate of inflation. Unless it has lower Net Present Value which may lead to forego the proposals and vice versa.
2. If the company is unable to raise the output price, it cab make some internal adjustment through careful management of working capital.
3. With respect of discount rate, the adjustment should be made though capital structure.

## CONCLUSION

It could be inferred from the above analysis that, effects of inflation are significantly influenced on capital budgeting decision making process. Though the inflation is a common problem, every finance manager encounters during their capital budgeting decision making process for optimum utilization of scare resources especially in two major aspects namely cash flow and discount rate. To examine the effects of inflation on cash flows, it is important to note the difference between nominal cash flow and real cash flow. It is the change in the general price level that creates crucial difference between these two. Therefore, the finance manager should take into cognizance the effect of inflation. Otherwise possibilities are more to forego the good investment proposal, because of low profitability.
Using of the proper discount rate demands on whether the benefits and costs are measured in real or nominal cash flows. To be consistent, the cash flows should match with discount rate. A mismatch can cause significant errors in decision making. There should be consistency in treating the inflation in the cash flows and the discount rate. It is very difficult to take decision, free form effect of inflation as it is highly uncertain. Therefore, use of Gross Domestic Product deflator may be ideal while taking CBD since, it would be more rational and scientific and not on pick and choose method for project or programs that extend beyond the inflation rate for the sixth year of the budget forecast. The Administration's economic forecast is updated twice annually, at the time the budget is published in January and February and at the time of the Mid-Session Review of the Budget in July. Alternative inflation estimates, based on credible private sector forecasts, may be used for sensitivity analysis.

## REFERENCES

Aswath Damodaran (2009), "Corporate Finance - Theory and Practice", $2^{\text {nd }}$ Edition, John Wiley \& sons (Asia), Phi Limited, Singapore, pp 318-324 Ahuja K, (2008) "Macro Economics", $2^{\text {nd }}$ Edition, S. Chand \& Company Limited. New Delhi, pp 346-353
David F Larker (2001), "The perceived Importance of Selected Information Characteristics for Strategic Capital Budgeting Decision', The Accounting Review, Vol. LVI, No. 3, pp 519-538
Geoffrey T Mills (2006), "The impact of inflation on Capital Budgeting and working capital", Journal of financial and Strategic Decisions, vol. 9, No. 1, spring, pp 79-87.
Khan M Y \& Jain P K, (2009), "Financial Management - Text, problems and cases", $4^{\text {th }}$ Edition, Tata McGraw Hill Publishing Company Limited., New Delhi, pp 450-559.
Panday I M, (2008), "Financial Management", $9^{\text {th }}$ Edition, Vikas Publishing House Private Limited, New Delhi, pp 450-559
Uri Benzion, Amon Rapport, Joseph Yagil (2007), "Discount Rates Inferred from Decisions: An Experimental Study", Management Science, Vol. 35, No. 3, pp. 210-28.
http://en.wikipdedia.org
www.investopdedia.com

# EMPOWERMENT OF WOMEN IN GADAG DISTRICT- A STUDY OF SELF HELP GROUPS ENTREPRENEURS 

DR. A. S. SHIRALASHETTI<br>ASST. PROFESSOR OF COMMERCE<br>P. G. DEPARTNEBT OF STUDIES AND RESEARCH IN COMMERCE<br>KARNATAK UNIVERSITY<br>DHARWAD-3


#### Abstract

The women of today have the capability to analyse, organise and mobilise the surrounding situation for social transformation. Because of participation in social activities, leadership qualities are developing in women. They are participating actively during election by campaigning and voting and many women entrepreneurs become the members and volunteers of political parties. Women of today are heading various institutions. They are more productive as compared to men in many entrepreneurial activities. They are also participating in taking all important decisions of their family matters. The present study is based on the primary data collected from 250 sample women entrepreneurs of Gadag district of Karnataka state. The study focused on to examine the women empowerment through entrepreneurial activities. It has suggested to make provision of sufficient finance and to provide all necessary infrastructure to women entrepreneurs.


## KEYWORDS

Women, Gadag, Entrepreneurs, Sociel, Finance.

## INTRODUCTION

$\mathfrak{C}$mpowerment is a process of change by which individuals or groups gain power and ability to take control over their lives. It involves access to resources, resulting into increased participation in decision-making and bargaining power and increased control over benefits, resources and own life, increased self-confidence, self-esteem and self-respect, increased well being. The word 'empowerment' is a multi-fold concept that includes economic, social and political empowerment.
Women are no doubt working more than men but proportion of unpaid work to total work of female is longer than male. However, of late, this trend has changed. Women of today get access to and control over productive resources and they have some degree of financial autonomy. Women are earning more income than men and they are independent in financing, investment and distribution decisions. Their power has increased in purchase of fixed and current assets. They get more spending ability and they are saving more than what they were in the past. They have been investing more of their savings in various investment avenues and possessed more domestic animals. In additions, they own more properties after taking entrepreneurial activities.
Constitutionally and legally, man and woman are equal. But in reality, woman still finds a secondary place. In past, women were looked with suspicious eyes and considered as neglected person in society. Very less importance had given to women and their participation was very less in social activities. However, efforts are being made by
the governments and NGOs and other social organizations to bring equality in men and women. As result of this, women are participating in all social activities. In addition, they aware majority of social problems and their social status and recognition is high.
The women of today have the capability to analyse, organise and mobilise the surrounding situation for social transformation. Because of participation in social activities, leadership qualities are developing in women. The central government made constitutional provision of 33 per cent reservation in seats of Gram Panchayat during 1991. Woman participation in political activities is rising. Many women entrepreneurs are president of Gram Panchayat. They are participating actively during election by campaigning and voting. In addition, many women entrepreneurs become the members and volunteers of political parties.

## STATEMENT OF RESEARCH PROBLEM

Recently, the role of women in the Indian society has changed considerably. Women of today are no more confined to kitchen and four walls of the house. They have been actively participating in every economic activity and successfully proved that they are equally productive and in many cases they are more productive than men. Women are the backbone of many successful entrepreneurs, educationists, professionals, scientists and economists, etc. Since, women in India constitute 48.15 percent of the total population as per census 2001; development of Indian economy cannot be possible by neglecting women who constitute large segment of the society. Like both hands are necessary for the growth and development of any human, men and women are need to work jointly and individually for the development of family income in particular and country income in general.
Economic development of a country means a process by which per capita income of that country moves upward over a period of time. Like many other countries of the world, India has endowed with rich natural and human resources; needs proper use by adopting modern technology for growth and development of the economy. Therefore, entrepreneurship is essential for proper use of renewable and nonrenewable natural resources and to provide employment to the unemployed youth. Many women entrepreneurs are playing a vital role in this direction through creation of utilities and generation of employment. Further, there has lot of progress in growth and development of SHGs in India in general and study area in particular and it is very essential to know the growth of entrepreneurial activities of women, its impact on women entrepreneurs and problems faced by them during entrepreneurial activities. Hence, the research problem is stated as "Empowerment of Women in Gadag District- A Study of Self Help Groups Entrepreneurs"

## NEED AND SIGNIFICANCE OF THE STUDY

India is a rich country inhabited by more number of poor people. India has completed ten five years plans and it is in the eleventh five years plans, which has begun from $1^{\text {st }}$ April 2007. All these plans focused on increasing the Gross Domestic Product (GDP) and eradicating the poverty by providing more employment opportunities to the unemployed men and women. The growth rate in the Gross Domestic Product (GDP) at factor cost was 9.6 percent during 2006-07 and it is expected to grow at 6 percent plus during 2009-10. "The unemployment in India among work force was 7.49 million in 1992-93 and the same has increased to 11.24 million in 2004-05"1. The people below the poverty line in India are around 20 percent of total population. All these above factors are equally applicable to the study area (i.e. Gadag District) and Gadag district is one of the backward districts among the districts of north Karnataka area.
Women participation in entrepreneurial activities in abroad is growing rapidly. " 25 per cent of businesses in China, 40 per cent of all business in Hungary, 38 per cent of business in Poland, 32 per cent of business in Mexico, 25 per cent of business in France are established by women entrepreneurs. 38 per cent of businesses in USA are established by women and employed 27.5 million. They generate annual sales of $\$ 3.6$ trillion. In addition, 23 per cent of private firms in Japan, $1 / 3$ of new business since 1990 in Germany and $1 / 3$ of new business in Europe and 25 per cent of self employed sector in UK were established by women entrepreneurs"2.
There has lot of progress in the growth and development of SHGs in India in general and study area in particular. "The number of SHGs financed by banks in India has increased from 32995 in 1992-93 to 2476492 in 2006-07. The loan sanctioned and disbursed to these SHGs went up from Rs. 571 million in 1992-93 to Rs. 135119 million in 2006-07. The numbers of households benefited under SHG programme are more than 32.98 million. Further, the cumulative numbers of SHGs formed in Gadag district are 9161 and the amount of loan disbursed to these SHGs are Rs.2325.87lakhs as on $31-03-2007^{\prime 3}$. However, the poverty, unemployment, illiteracy, low industrialization, male dominance, etc, still exist in the study area. Besides, it is also clear from the review of earlier literature that there has no study on this area. Hence, the researcher felt the need of the study.

## REVIEW OF EARLIER LITERATURES

There are numerous studies made both by Indians and foreigners to examine the empowerment of women. The some important studies on women empowerment are as follows;
Nayak Sudarshan (2006) ${ }^{4}$ The researcher made an attempt to analyze the empowerment of poor through the SHG and Micro Finance in Kalahandi district of Orissa State. The questionnaires were prepared and presented to 997 members of sample 80 SHG. The study found that 89194 families of Kalahandi district were benefited from SHGS and bank linkage programme and suggested for strengthening of cooperative sector.
Tushir, Monika. Chadda Sumit and Ahlwat Pankaj (2007) ${ }^{5}$ They made an attempt to highlight the role of micro finance in up lifting the economic conditions of women households in Haryana district through SHGs up to March 2006 They concluded that micro credit is a powerful instrument and has improved access to rural poor especially women.
Vinayamoorthy, A. and Pithoda, Vijay (2007) ${ }^{6}$ An attempt was made by the researchers to examine the women empowerment through SGHs in three villagers of Tamil Nadu they selected the sample of 398 members of 20 SHGs from Vellore, Thiruvannamalla and Dharmapur districts of the state. The main objectives of the study were to examine the income, expenditure and the savings of the members after joining SHGs role of SHGs in providing credit. They concluded that the economic activities of the SHGs were quite successful.
Nagaraj. V. Gudaganavar and Rajashree. S. Gudaganavar(2008) ${ }^{7}$ They made an attempt to examine the empowerment of rural women through SHG. They highlighted the progress of SHG in India from 1992-93 to 2006-07. They also highlighted the region wise progress of SHG and employment of women through SHG. They concluded that no development was possible without empowerment of women.
Vasantakumari, $\mathbf{P}(\mathbf{2 0 0 8})^{8}$ The author made an attempt to examine the role of micro enterprises in empowering women in Kerala. The author took a sample of 328 micro entrepreneurs. The study revealed that these enterprises helped in empowering rural women economically, socially and individually. The study suggested giving priority for commercial viability of enterprises.
Ganapathi, R and Sannasi,S.(2008) ${ }^{9}$ The authors made an attempt to highlight the factors influencing the women entrepreneurs. The study highlighted the common features of women entrepreneurs, challenges faced by them while undertaking the entrepreneurial activities and the necessary strategies to overcome the challenges. The study concluded that the women must be motivated to establish business in the interest of the family income in particular and national income in general.
Lalitha $K$ and Prasad $G(2009)^{10}$ An attempt was made by the authors to analyze the empowerment of women through DWCRA programme in Guntur district of Andhra Pradesh. The study revealed that income of individual after joining DWCRA programme has increased as compared to before joining. The study concluded that the potential of the women is not fully tapped and utilized for the community.
A.Saraswathy,S. Porkodi and M Bhuvaneswari (2009) ${ }^{11}$ The authors made an attempt to analyse the role of micro finance in Krishnagiri district. They highlighted the role of Government of India, NABARD, NGO and Banks. The questionnaire was prepared and presented to 75 members of 16 SHGs of 9 NGO. The study revealed that majority of members have agreed that there income has increased after joining SHG. The study concluded that SHGs become the development ambassador of villages.

## OBJECTIVES OF THE STUDY

The main objectives of the study are:

1. To examine the level of women empowerment through entrepreneurship development.
2. To offer useful suggestions in the light of findings.

## HYPOTHESES OF THE STUDY

The main hypotheses of the present study are;
Ho; There has no women empowerment through entrepreneurial activities.
Ha; There has women empowerment through entrepreneurial activities.

## METHODOLOGY

The present study is based on the primary as well as secondary data. The primary data would be collected through pretested questionnaires from 250 members of SHGs by selecting them randomly as sample from different taluka of Gadag district. Further, equal weightage has been
given by selecting 125 entrepreneurs from city (district and taluka head quarters) and 125 entrepreneurs of different villages of five taluka of Gadag district. The collected data were analyzed by using statistical tools like classification, tabulation, percentage and common size statement to examine the level of women empowerment after joining SHGs. Further, the secondary data like newspapers, annual reports of the NABARD, books and journals, etc, are used to collect the necessary information for the study. Besides, discussions will also be held with the officials of banks, the NABARD, NGOs and members of SHGs.

## SCOPE OF THE STUDY

The present study covers the women empowerment through SHG in Gadag District.

## ANALYSIS OF WOMEN EMPOWERMENT

Women is said to be empowered only when she has the power and control on resources. Empowerment is a multifold concept comprise of economic empowerment, socio-cultural empowerment and political empowerment. To examine the level of economic, socio-cultural and political empowerment in women, the data on various dimensions before and after taking entrepreneurial activities were compared.

TABLE 1: NUMBER OF INCOME EARNERS IN FAMILY OF WOMEN ENTREPRENEURS

| Number of Income <br> Earners |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Before taking Entrepreneurial Activities | Percentage | After taking Entrepreneurial Activities | Percentage |
|  | 171 | 68.40 | 5 | 02.00 |
| Two | 79 | 31.60 | 151 | 60.40 |
| Three | ---- | -- | 94 | 37.60 |
| Total | $\mathbf{2 5 0}$ | $\mathbf{1 0 0}$ | $\mathbf{2 5 0}$ | $\mathbf{1 0 0}$ |

Source; Field Survey.
Table 1 reveals that 68.4 per cent of women entrepreneurs have only one income earners and 31.6 per cent have two income earners in the family of entrepreneurs before taking entrepreneurial activities. However, the percentage of one earner has decreased to 2 from 68.4 and percentage of two income earners increased from 31.6 to 60.4 after taking entrepreneurial activities. In addition, there have three income earners in 37.6 per cent of women entrepreneurs' family after taking entrepreneurial activities. This indicates that number of earning members in family of women entrepreneurs have increased after taking entrepreneurial activities.

TABLE 2: MATERIAL POSSESSION BY WOMEN ENTREPRENEURS

| Material possession | Number of Women Entrepreneurs |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Before taking Entrepreneurial Activities | Percentage | After taking Entrepreneurial Activities | Percentage |
| Radio | 225 | 90.00 | 239 | 95.60 |
| TV | 125 | 50.00 | 244 | 97.60 |
| Bicycle | 78 | 31.20 | 227 | 90.80 |
| Two Wheeler | 7 | 02.80 | 145 | 58.00 |
| Cupboard | ---- | --- | 15 | 06.00 |
| Total | $\mathbf{2 5 0}$ | $\mathbf{1 0 0}$ | $\mathbf{2 5 0}$ | $\mathbf{1 0 0}$ |

Source; Field Survey.
Note; Multiple Choices.
Table 2 provides information on material possession by women entrepreneurs before and after taking entrepreneurial activities. It is clear from table that 90 per cent possess radio, 50 per cent possess TV, 31.2 per cent possess bicycle and only 2.8 per cent of women entrepreneurs possess two wheelers in their family before taking entrepreneurial activities. However, after taking entrepreneurial activities, 95.6 per cent possess radio, 97.6 per cent possess TV, 90.8 per cent possess bi-cycle and 58 per cent possess two wheelers. In addition, 6 per cent of women entrepreneurs own cupboard after taking entrepreneurial activities. This indicates that economic ability of women entrepreneurs has increased after taking entrepreneurial activities.

TABLE 3: MONTHLY INCOME OF WOMEN ENTREPRENEURS

| Income Level <br> (Rs) | Number of Women Entrepreneurs |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Before taking Entrepreneurial Activities | Percentage | After taking Entrepreneurial Activities | Percentage |
|  | 144 | 57.60 | 6 | 02.40 |
|  | 96 | 38.40 | 81 | 32.40 |
|  | 10 | 04.00 | 74 | 29.60 |
|  | ---- | --- | 58 | 23.20 |
|  | ---- | --- | 21 | 12.40 |
|  | $\mathbf{2 5 0}$ | $\mathbf{1 0 0}$ | $\mathbf{2 5 0}$ | $\mathbf{1 0 0}$ |

It is evident from table 3 that the percentage of women entrepreneurs whose monthly income was up to Rs. 1000 and Rs. 1001 to Rs. 2000 before taking entrepreneurial activities has decreased from 57.6 to 2.4 and from 38.4 to 32.4 respectively after taking entrepreneurial activities. However, the percentage of women entrepreneurs whose monthly income was Rs. 2001 to Rs. 3000 before taking entrepreneurial activities has increased from 4 to 29.6 after taking entrepreneurial activities. Further, there was no single entrepreneur whose monthly income is Rs. 3001 to Rs. 4000 and above Rs. 4000 before taking entrepreneurial activities. But 23.2 per cent and 12.4 per cent of women entrepreneurs have monthly income of Rs. 3001 to Rs. 4000 and above Rs. 4000 respectively after taking entrepreneurial activities.. This signifies that the entrepreneurial activities through SHGs helped entrepreneurs in elevating income.

TABLE 4: MONTHLY EXPENDITURE OF WOMEN ENTREPRENEURS

| Expenditure Level <br> (Rs) | Number of Women Entrepreneurs |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Before taking Entrepreneurial Activities | Percentage | After taking Entrepreneurial Activities | Percentage |
|  | 188 | 75.20 | 94 | 37.60 |


| $\mathbf{1 0 0 1 - 2 0 0 0}$ | 60 | 24.00 | 111 | 44.40 |
| :--- | :--- | :--- | :--- | :--- |
| 2001-3000 | 2 | 00.80 | 45 | 18.00 |
| $\mathbf{3 0 0 1 - 4 0 0 0}$ | ---- | --- | ---- | ---- |
| Above 4000 | ---- | --- | --- | ---- |
| Total | $\mathbf{2 5 0}$ | $\mathbf{1 0 0}$ | $\mathbf{2 5 0}$ | $\mathbf{1 0 0 . 0 0}$ |

Source; Field Survey.
Table 4 clears that the monthly expenditure of women entrepreneurs has gone up after taking entrepreneurial activities as compared to their expenditure before taking entrepreneurial activities. The table also clears that 75.2 per cent women entrepreneurs' monthly expenditure was up to Rs. 1000 and 24 per cent women entrepreneurs' monthly expenditure was Rs. 1001 to 2000 before taking entrepreneurial activities. However, the percentage of women entrepreneurs whose monthly expenditure is up to Rs1000 before taking entrepreneurial activities has declined to 37.6 percent and the percentage of women entrepreneurs whose monthly expenditure was Rs. 1001 to Rs. 2000 and Rs. 2001 to 3000 before taking entrepreneurial activities has increased to 44.4 per cent and to 18 per cent respectively. This indicates that women entrepreneurs have gotten higher ability to spend to meet their day today requirements after taking entrepreneurial activities.
It is evident from table 5 that savings of women entrepreneurs has gone up after they become they took entrepreneurial activities. The women entrepreneurs whose monthly savings was up to Rs100=00 before taking entrepreneurial activities has declined from 61.6 per cent to 37.6 per cent and women entrepreneurs whose monthly was Rs. 100 to Rs. $150=00$ and Rs.151-to Rs. 200 has increased from 36.4 per cent to 44.4 per cent and 2 per cent to 14 per cent respectively after taking entrepreneurial activities. Further, savings above of Rs. 200 has increased to 4 per cent. This signifies that the saving with women entrepreneurs has risen due rise in their income.

TABLE 5: MONTHLY SAVINGS PATTERN OF WOMEN ENTREPRENEURS

| Savings Level <br> (Rs) | Number of Women Entrepreneurs. |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Before taking Entrepreneurial Activities | Percentage | After taking Entrepreneurial Activities | Percentage |
| Up to 100 | 154 | 61.60 | 94 | 37.60 |
| $101-150$ | 91 | 36.40 | 111 | 44.40 |
| $151-200$ | 5 | 02.00 | 35 | 14.00 |
| Above 200 | --- | --- | 10 | 04.00 |
| Total | $\mathbf{2 5 0}$ | $\mathbf{1 0 0}$ | $\mathbf{2 5 0}$ | $\mathbf{1 0 0 . 0 0}$ |

Source; Field Survey.
TABLE 6: INVESTMENT PATTERN OF WOMEN ENTREPRENEURS

| Investment | Number of Women Entrepreneurs. |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Before taking Entrepreneurial Activities | Percentage | After taking Entrepreneurial Activities | Percentage |
| Gold | 101 | 40.40 | 245 | 94.00 |
| Silver | 234 | 93.60 | 235 | 94.00 |
| Bank deposits | 85 | 34.00 | 241 | 96.40 |
| Postal Savings | 69 | 27.60 | 223 | 89.20 |
| LIC | 70 | 28.00 | 235 | 94.00 |
| Shares | --- | --- | 31 | 12.40 |
| Mutual Funds | --- | --- | 5 | 02.40 |
| Total | $\mathbf{2 5 0}$ | $\mathbf{1 0 0}$ | $\mathbf{2 5 0}$ | $\mathbf{1 0 0 . 0 0}$ |

Source; Field Survey.
Note; Multiple Choices.
It is clear from table 6 that investment made by women entrepreneurs in gold, silver, bank deposits, postal savings and LIC has increased after taking entrepreneurial activities as compared to before taking entrepreneurial activities. The number of women entrepreneurs who made investments in gold has increased from 40.4 per cent to 94 per cent, in silver has increased marginally by 0.06 per cent. Similarly, the number of women entrepreneurs who made investment in bank deposits, postal savings and LIC has increased from 34 per cent to 96.4 per cent, 27.6 per cent to 89.2 per cent and 28 per cent to 94 per cent respectively. Further, women entrepreneurs who had not made any investment in shares and mutual funds before taking entrepreneurial activities are started investing in shares and mutual funds. 12.4 per cent and 2.4 per cent of women entrepreneurs have invested in shares and mutual funds respectively after taking entrepreneurial activities.

TABLE 7: DOMESTIC ANIMALS OF WOMEN ENTREPRENEURS

| Domestic animals | Number of Women Entrepreneurs. |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Before taking Entrepreneurial Activities | Percentage | After taking Entrepreneurial Activities | Percentage |
| Cow | 90 | 36.00 | 182 | 72.80 |
| Buffalos | 20 | 08.00 | 56 | 22.40 |
| Goat | 43 | 17.20 | 102 | 40.80 |
| Sheep | 57 | 22.80 | 183 | 73.20 |
| Hen | 81 | 32.40 | 140 | 56.00 |
| Total | $\mathbf{2 5 0}$ | $\mathbf{1 0 0}$ | $\mathbf{2 5 0}$ | $\mathbf{1 0 0 . 0 0}$ |

Source; Field Survey.
Note; Multiple Choices.
Table 7 depicts the position of women entrepreneurs in terms of possession of domestic animals before and after taking entrepreneurial activities. The possession of cow has increased from 36 per cent to 72.8 per cent, buffalo has increased from 8 per cent to 22.4 per cent, goat has gone up from 17.2 per cent to 40.8 per cent, sheep has increased from 22.8 per cent to 73.2 per cent and hen has increased from 32.4 per cent to 56 per cent in women entrepreneurs after taking entrepreneurial activities. This indicates that entrepreneurial activities enable the women entrepreneurs to possess more domestic animals which in turn elevated their income.

Table 8 reveals that 89.6 per cent of durable products purchase decisions took by male members and only 10.4 percent of durable products purchase decisions took by female members of family before taking entrepreneurial activities. However, male member dominance has decreased from 89.6 per cent to 57.6 per cent and female member dominance has increased from 10.4 per cent to 27.2 per cent after taking entrepreneurial activities in purchase of durables. Further, both male and female members jointly discuss and decide to purchase durables and the percentage of this is 15.2 per cent. This indicates that importance of female has been increasing day by day.

TABLE 8: PURCHASE DECISION IN WOMEN ENTREPRENEURS

| Members | Number of Women Entrepreneurs. |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Before taking Entrepreneurial Activities | Percentage | After taking Entrepreneurial Activities | Percentage |
| Male | 224 | 89.60 | 144 | 57.60 |
| Female | 26 | 10.40 | 68 | 27.20 |
| Both | ---- | --- | 38 | 15.20 |
| Total | $\mathbf{2 5 0}$ | $\mathbf{1 0 0}$ | $\mathbf{2 5 0}$ | $\mathbf{1 0 0 . 0 0}$ |

TABLE 9: EDUCATION DECISION IN WOMEN ENTREPRENEURS.

| Members | Number of Women Entrepreneurs. |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Before taking Entrepreneurial Activities | Percentage | After taking Entrepreneurial Activities | Percentage |
| Male | 221 | 88.40 | 173 | 69.20 |
| Female | 29 | 11.60 | 37 | 14.80 |
| Both | --- | --- | 40 | 16.00 |
| Total | $\mathbf{2 5 0}$ | $\mathbf{1 0 0}$ | $\mathbf{2 5 0}$ | $\mathbf{1 0 0 . 0 0}$ |

It is clear from table 9 that 88.4 per cent of children' education decisions were decided by male member of family before taking entrepreneurial activities by women entrepreneurs. However, after taking entrepreneurial activities by women entrepreneurs, the percentage of taking children' education decision has decreased to 69.2 per cent and female member percentage increased from 11.6 per cent to 14.8 per cent after taking entrepreneurial activities. Further, both male and female members jointly discuss and decide on education of children and the percentage of this is 16 per cent. This indicates that the dominance by male members of family has been slowly declining in taking many decisions of family.

TABLE 10: MARRIAGE DECISION IN WOMEN ENTREPRENEURS.

| Members | Number of Women Entrepreneurs. |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Before taking Entrepreneurial Activities | Percentage | After taking Entrepreneurial Activities | Percentage |
| Male | 236 | 94.40 | 218 | 87.20 |
| Female | 14 | 05.60 | 27 | 10.80 |
| Both | ---- | --- | 5 | 02.00 |
| Total | $\mathbf{2 5 0}$ | $\mathbf{1 0 0}$ | $\mathbf{2 5 0}$ | $\mathbf{1 0 0 . 0 0}$ |

Source; Field Survey
Marriage decision is an important decision one can decide very carefully because this is affecting the whole life of couple. Any small mistake in this regard will affect adversely to both family. In past, male members of family dominate in taking marriage decisions of their family members. However, after taking entrepreneurial activities by women things have been changing and it is clear from table 10 that the decision power of female members has increased from 5.6 per cent to 10.8 per cent and power of male members has decreased from 94.4 per cent to 87.2 per cent.

TABLE 11: IMPROVEMENT IN PERSONALITY OF WOMEN ENTREPRENEURS.

| Personality Elements | Number of Women Entrepreneurs. |  |  |
| :--- | :--- | :--- | :--- |
|  | Yes | No | Total |
| Improvement in economic conditions | $246(98.40)$ | $4(01.60)$ | $250(100.00)$ |
| Improvement in industrial skills | $176(70.40)$ | $74(29.60)$ | $250(100.00)$ |
| Improvement in importance in family | $245(98.00)$ | $5(02.00)$ | $250(100.00)$ |
| Improvement in social status | $224(89.60)$ | $26(10.40)$ | $250(100.00)$ |
| Improvement in ability to contact with officials | $175(70.00)$ | $75(30.00)$ | $250(100.00)$ |
| Improvement in ability to take decisions | $162(64.80)$ | $88(35.20)$ | $250(100.00)$ |
| Increase in awareness of government facilities | $165(66.00)$ | $85(34.00)$ | $250(100.00)$ |
| Increase in awareness of social problems | $122(48.80)$ | $128(51.20)$ | $250(100.00)$ |
| Increase in importance of women education | $240(96.00)$ | $10(04.00)$ | $250(100.00)$ |
| Overall response | $1755(78.00)$ | $495(22.000)$ | $2250(100.00)$ |

Source; Field Survey.
Note; Multiple Choices.
Table 11 depicts information on change in personality of women entrepreneurs after taking entrepreneurial activities. It is clear from table 78 per cent have opined about overall improvement in personality of women entrepreneurs. The economic conditions has improved in 98.4 per cent, industrial skill has improved in 70.4 per cent, importance in family has improved in 98 per cent, social status has improved in 89.6 per cent, ability to contact with officials of various organizations has improved 70 per cent, ability to take decisions has improved in 64.8 per cent, awareness of government facility has increased in 66 per cent, awareness of social problems has increased only in 48.8 per cent and awareness of importance of women education has increased in 96 per cent of women entrepreneurs after taking entrepreneurial activities. This indicates that there has overall improvement in the personality of women entrepreneurs.

TABLE 12: POLITICAL CHANGE IN WOMEN ENTREPRENEURS

| Political Change | Number of Women Entrepreneurs. |
| :--- | :--- |


|  | Before taking Entrepreneurial <br> Activities | Percentage | After taking Entrepreneurial <br> Activities | Percentage |
| :--- | :--- | :--- | :--- | :--- |
| Member of party | 48 | 19.20 | 66 | 26.40 |
| Volunteers of party | 6 | 02.40 | 17 | 06.60 |
| No relation with party | 98 | 39.20 | 95 | 38.00 |
| Participation in party function | 11 | 04.00 | 29 | 11.60 |
| Voting in election | 225 | 90.00 | 245 | 98.00 |
| Member of gram panchayat | --- | --- | 15 | 06.00 |
| Member of taluk panchayat/ <br> Municipality/ town council | ----- | --- | --- | --- |
| Total | $\mathbf{2 5 0}$ | $\mathbf{1 0 0}$ | $\mathbf{2 5 0}$ | $\mathbf{1 0 0 . 0 0}$ |

Source; Field Survey.
Note; Multiple Choices.
The government of India has empowered women by providing reservations at various levels. It has already given 33 per cent reservation at gram panchayat and taluk panchayat. Reservation quota is also given to women in employment. Further, the central government has moved women reservation bill in Rajyasabha and it is already passed. But it has still pending in Lokasaba. It is clear from table 12 that number of women entrepreneurs to the member of political party has increased from 19.2 per cent to 26.4 per cent, volunteers of political party has increased from 2.4 per cent to 6.6 per cent and entrepreneurs who have no relation with party has declined from 39.2 per cent to 38 per cent. Further, participation during election by voting has increased from 90 per cent to 98 per cent and 6 per cent of women entrepreneurs are members of gram panchayat. These indicate that women participation political activities have increased after taking entrepreneurial activities.

TABLE 13: AWARENESS OF PUBLIC UTILITY SERVICES IN WOMEN ENTREPRENEURS

| Utility Services | Number of Women Entrepreneurs. | Percentage <br>  <br> Before taking Entrepreneurial <br> Activities | Percentage | After taking Entrepreneurial <br> Activities |
| :--- | :--- | :--- | :--- | :--- |
|  | 125 | 50.00 | 186 | 74.40 |
|  | 79 | 31.60 | 181 | 72.40 |
| Office of <br> Municipality/Town Council | 95 | 38.00 | 125 | 50.00 |
| Primary health center | 120 | 48.00 | 245 | 98.00 |
| Post office | 135 | 54.00 | 245 | 98.00 |
| Bank | 75 | 30.00 | 225 | 90.00 |
| Police station | 64 | 25.60 | 205 | 82.00 |
| Total | $\mathbf{2 5 0}$ | $\mathbf{1 0 0}$ | $\mathbf{2 5 0}$ | $\mathbf{1 0 0 . 0 0}$ |

Source; Field Survey.
Note; Multiple Choices
The benefits of public utility services can be available to the public only when they got awareness. The awareness towards gram panchayat has gone up from 50 per cent to 74.4 per cent, taluk panchayat has increased from 31.6 per cent to 72.4 per cent, primary health centre has increased from 48 per cent to 98 per cent, post office has gone up from 54 per cent to 98 percent, bank has increased from 30 per cent to 90 per cent and police station has increased from 25.6 per cent to 82 per cent in women entrepreneurs after taking entrepreneurial activities.

TABLE 14: PARTICIPATION IN LEGAL MATTERS BY WOMEN ENTREPRENEURS

| Members | Number of Women Entrepreneurs. |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
|  | Before taking Entrepreneurial Activities | Percentage | After taking Entrepreneurial Activities | Percentage |
| Male | 210 | 84.00 | 170 | 68.00 |
| Female | 40 | 16.00 | 50 | 20.00 |
| Both | ---- | --- | 30 | 12.00 |
| Total | $\mathbf{2 5 0}$ | $\mathbf{1 0 0}$ | $\mathbf{2 5 0}$ | $\mathbf{1 0 0 . 0 0}$ |

Source; Field Survey.
Table 14 reveals that 84 per cent of male member and only 16 per cent of female members of family were used to participate in legal before taking entrepreneurial activities by women entrepreneurs. However, male members' role has declined from 84 per cent to 68 per cent and female members' role has increased from 16 per cent to 20 per cent in legal matters of family. Further, joint participation was not be there before venturing entrepreneurship but after venturing entrepreneurship this has risen to 12 per cent. This indicates that women participation has increased even sensitive issue like legal matters.

TABLE 15 PARTICIPATION IN SOCIAL MATTERS BY WOMEN ENTREPRENEURS.

| Members | Number of Women Entrepreneurs. |  |  |  |  | Afrer |
| :--- | :--- | :--- | :--- | :--- | :---: | :---: |
|  | Before taking Entrepreneurial Activities | Percentage | After taking Entrepreneurial Activities | Percentage |  |  |
| Male | 145 | 58.00 | 35 | 14.00 |  |  |
| Female | 14 | 05.60 | 20 | 08.00 |  |  |
| Both | 91 | 36.40 | 195 | 78.00 |  |  |
| Total | $\mathbf{2 5 0}$ | $\mathbf{1 0 0}$ | $\mathbf{2 5 0}$ | $\mathbf{1 0 0 . 0 0}$ |  |  |

Source; Field Survey.
It is clear from table 15 that role of women has increased in social matters after taking entrepreneurial activities. The role of male members has decreased from 58 per cent to 14 per cent and role female members have increased from 5.6 per cent to 8 per cent decisions relating to social matters. Further, joint participation has increased from 36.4 per cent to 78 per cent after taking entrepreneurial activities by women entrepreneurs. These indicate that there has good development in society by more participation from female members.

## FINDINGS OF THE STUDY

The main findings of the study are as following:

- Number of earning members in family of women entrepreneurs have increased after taking entrepreneurial activities.
- Materials possession of women entrepreneurs has increased after taking entrepreneurial activities.
- The entrepreneurial activities through SHGs helped entrepreneurs in elevating income.
- The ability to spend in women entrepreneurs has risen due to rise in income.
- The savings of women entrepreneurs has increased after taking entrepreneurial activities.
- Investment made by women entrepreneurs in gold, silver, bank deposits, postal savings and LIC has increased after taking entrepreneurial activities as compared to before taking entrepreneurial activities.
- Entrepreneurial activities enable women entrepreneurs to possess more domestic animals which in turn elevated their income.
- Male member dominance has decreased from 89.6 per cent to 57.6 per cent in purchase decisions of family assets. Similarly, male members dominance has slowly and steadily declining in all other family related decisions. The importance of women entrepreneurs are recognizing more and more.
- There has tremendous change in overall personality of women entrepreneurs.
- Women participation political activities have increased after taking entrepreneurial activities.
- Awareness towards public utility services in women entrepreneurs has increased after taking entrepreneurial activities.
- Women participation in legal and social activities has increased.


## SUGGESTIONS

The main suggestions are as per following:

- Initiating Awareness Programmes
- Setting up of Entrepreneurial Cell
- Changing the Aim of Formation of SHG
- Arranging Training Programmes
- Provision of Information
- Formation of Women Marketing Cooperatives
- Improving Infrastructure
- Planning of Entrepreneurial Activities
- Increasing Loan Amount
- Formation of More Number of SHGs


## CONCLUSION

The economic progress of India depends on the productivity of both male as well as female population. However in India, women were restricted to the four walls of the kitchen for the last many years due to male dominance. Of late, there has tremendous progress in social and cultural environment of India. The women are working in all areas of the economy, which were even restricted to male members. Women have proved their working ability and are working on par with men. Therefore, there is an urgent need to utilize these women resources optimally since they constitute around 48 per cent of total population to bring economic, social, cultural, political and legal empowerment. The SHG movement started in India has been working in right direction in empowering women by developing entrepreneurship spirit in rural and urban areas.

## REFERENCES

Economic Times dated 8-10-2007.
Surymurthi,S. Chrstina Sheela and Umarani, T.S. 2009.Globlisation- Challenges Faced by Women Entrepreneurs, Journal of Management,11(3):34-37.
Annual Reports of NABARD.
Nayak, Sudharshan.2007. Empowerment of the Poor through SHG and Micro Finance, Cooperative Perspective, 41(1)
Tushir, Monika. Chadda Sumit and Ahlwat Pankaj.2007.Role of Micro Finance in Uplifting the Economic Conditionsof Women House HoldsIn Haryana through SHG, Southern Economist, 46(7):.
Vinayamoorthy, A. and Pithoda, Vijay.2007. Women Empowerment through SHG-A Case Study in North Tamil Nadu, Indian Journal of Marketing,37(11):
Nagaraj. V. Gudaganavar and Rajashree. S. Gudaganavar.2008. Empowerment of Rural Women through SHG, Southern Economist, 47(19):3537.

Vasantakumari, P.2008. Women Empowerment through Micro Enterprises Development, Southern Economist, 47(15):31-34.
Ganapathi, R and Sannasi,S.2008.Women Entrepreneurship- The Road Ahead, Southern Economist, 46(18):36-38.
Lalitha K and Prasad G.2009. Empowerment of Women:DWCRA Programme, Southern Economist, 47(23-24):13-16.
A.Saraswathy,S. Porkodi and M Bhuvaneswari.2009.Micro Finance in Krishnegiri District, Indian Journal of Marketing,39(5):47-57.

Saurab Kumar.2009.New Dimension of Empowerment, Professional Banker, 9(9):25-29.
Anitha H. S. and Revenkar A.D.2007. Micro Credit through SHG for Rural Development, Southern Economist, 46(8):
Shobha,K.2008. Problems of Self Employed Women- An Analysis, Southern Economist, 47(6):24-26.
Murugan M,.Sakthive and Beghum, Aysha.2008. Predominant Barriers of Women Entrepreneurs, Southern Economist, 47(6):31-34.
Shiralashetti, A.S. and Hugar, S. S.2008.Micr Finance- A Study of SHG and Bank Linkage, Journal of Business Studies, 5(9):31-37.
Kumararaja, K. 2009.Performance of SHG in Tmail Nadu, Southern Economist, 47(19):14-16.
Sankaran,A. 2009. Trends and problems of Women Entrepreneurs in India, Southern Economist, 48(4):11-12.

# AN EVALUATION OF COOPERATIVE SOCIETIES FINANCED BY ICDP IN HIMACHAL PRADESH - A STUDY OF KULLU DISTRICT 

DR. GAGAN SINGH<br>ACADEMIC CONSULTANT<br>UTTARAKHAND OPEN UNIVERSITY<br>HALDWANI-NAINITAL - 263139

MAST RAM<br>ASST. PROFESSOR<br>SHYAM LAL COLLGE<br>UNIVERSITY OF DELHI<br>NEW DELHI


#### Abstract

The cooperatives are rendering services in the various areas like production, finance, marketing, personnel's, etc. There are more than 4332 cooperative institutions, which are working in the state. These institutions are providing not only the financial help to the rural people, but also implementing training and employment generation programmes for the artisans, especially in order to upgrade their skill and in helping then earn a better livelihood. The Cooperative movement has covered almost the entire state and the societies have been classifies according to the amount released in the shape of loan and margin money/share capital. The main objective of the present study is to assess the impact of ICDP investment in the cooperative societies in meeting project objectives. Membership of cooperative societies in H.P. is increasing but with slow pace, share capital and deposits are increasing with good pace strengthening the resource base of societies.


## KEYWORDS

Cooperation, Consumer, Marketing, Solvency, Society.

## INTRODUCTION

$\mathfrak{C}$ooperation is as old as the human being is on the earth. Ancient Indian Scripture Rig Veda states that cooperation is the very edifice of the Hindu family and of the village panchayats. Cooperation, as a subject, has attracted the attention of the social reformers, economists, sociologist, politicians, ethnologists and the Cooperators alike ever since its inception as a form of business organization in the middle of the nineteenth century. (Kulkarni, K.R.) Co-operative movement in India was introduced and has developed largely within the legislative frame-work. Gandhiji worked for Indian Cooperation in preventing a plague outbreak in 1900. About the results achieved, Gandhiji writes, "cooperation made work easier for them and, at the same time, lessened hardships". Around the world modern co-operatives have developed for over 200 years. Co-operative institutions exist all over the world providing essential services, which would otherwise be unattainable. (Mathur, B. S. 1992). The development of co-operatives in India can be traced back to 1883, when Sir William Wedderburn and Justice Ranacle prepared a scheme for establishing an Agricultural lack in Poona to provide loans to farmers. Though this scheme was not accepted in its totality but its recommendations were incorporated in the land improvement and Agriculturist Loans Act, (XIX of 1883 and XII of 1884). This Act is considered as foundation stone of co-operative movement in India. With the enactment of Co-operative Credit Societies Act in 1904, the co-operative movement started in India. (Sharma, Vidya Sagar, 1964) The step was considered as "a turning point in economic and social history" of India. The Act which was drafted and introduced by Sir Denzil Ibbeston in the legislature's council was to a great extent based on English Friendly Societies Act of 1896. The Govt. of India had appointed Vodyanathan Committee to strengthen the co-operative credit structure and recently, the report has been submitted. The Govt. of India has accepted the recommendations of the committee and provisioned Rs. 1500 crores to strengthen co-operative credit structure for which state Govt's have been asked to complete the formalities in this regard, as the cooperation is a state subject. Integrated Co-operative Development Project (ICDP) was introduced in the Seventh Five Year Plan for overall development of selected districts through co-operative efforts, in the areas of agriculture and allied sectors like fishery, poultry, sericulture, rural industries, etc. This was the first scheme of the NCDC which has an integrated area approach for co-operative development. The scheme aims at the development of horizontal and vertical functional linkages amongst co-operatives, with a view to promote overall development of co-operative infrastructure for catering the need of rural community, in an effective manner. The scheme takes into account the local natural and human resource endowment, as well as requirements and potential for the development in the area. Emphasis is laid on development of primary co-operatives into multi-purpose entities to improve the economic lot of the rural community. Under the scheme, a district or part of a district is selected on the recommendation of State Government for Integrated Co-operative Development.

## CO-OPERATIVE MOVEMENT IN HIMACHAL PRADESH

Himachal Pradesh, known as Dev Bhumi to the ancients is situated in the heart of the Western Himalayas. To the north lies the state of Jammu and Kashmir, Uttar Pradesh in the South-East, Haryana on the South and Punjab on the West, where as on the east it forms India's border with Tibet. The territory is almost wholly mountainous with latitudes ranging between 350 to 7000 meters above the sea level. Himachal Pradesh was formed on $15^{\text {th }}$ April, 1948 after the merger of 30 erstwhile princely states. It was given full statehood on $25^{\text {th }}$ January, 1971. At present Himachal Pradesh has 12 districts spread over geographical area of 55,673 sq. kms. with the population of $55,70,877$ according to 1991 census which is round about 60.77 lacs currently. More than 92 percent of the population of the state is living in the villages and agriculture is the main occupation.

The co-operative society Act, 1912, was adopted by Sirmour state in 1934. A joint stock bank was functioning as Sirmour Bank which used to give credit to co-operative societies. This princely state encouraged the co-operative movement and as a result several societies came into existence. Later on, most of the societies were converted into multipurpose societies. (Verma, Shari, 1996)

| Sr. <br> No | Particular <br> s | Position in the beginnin g of First Five Year Plan | Positio n in the end of First Five Year Plan | Positio <br> $n$ at the end of Second Five <br> Year <br> Plan | Positio <br> $n$ at the end of Third <br> Five <br> Year <br> Plan | Position at the end of Fourth Five Year Plan | Positio <br> $n$ at the end of Fifth <br> Five <br> Year <br> Plan | Position at the end of Six Five Year Plan | Position at the end of Seven Five Year Plan | Position at the end of Eighth Five Year Plan | Position at the end of Ninth Five Year Plan | Positio n at the end of 2006- <br> 07 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | No. of Cooperative Societies | $843$ | $\begin{aligned} & \hline 745 \\ & (-11.62) \end{aligned}$ | $\begin{aligned} & 984 \\ & (32.08) \end{aligned}$ | $\begin{aligned} & 1184 \\ & (20.32) \end{aligned}$ | $\begin{aligned} & 3677 \\ & 210.56 \end{aligned}$ | $\begin{aligned} & 3575 \\ & (-2.77) \end{aligned}$ | $\begin{aligned} & 3453 \\ & (.3 .41) \end{aligned}$ | $\begin{aligned} & 3958 \\ & (14.62) \end{aligned}$ | $\begin{aligned} & 4419 \\ & (11.64) \end{aligned}$ | $\begin{aligned} & 4334 \\ & (-1.92) \end{aligned}$ | $\begin{aligned} & 4404 \\ & (1.61) \end{aligned}$ |
| 2. | Members hip (in Lakh) | $0.25$ | $\begin{aligned} & \hline 0.51 \\ & (104) \end{aligned}$ | $\begin{aligned} & \hline 0.79 \\ & (54.90) \end{aligned}$ | $\begin{aligned} & \hline 1.26 \\ & (59.49) \end{aligned}$ | $\begin{aligned} & 5.93 \\ & (370.63) \end{aligned}$ | $\begin{aligned} & \hline 6.85 \\ & (15.51) \end{aligned}$ | $\begin{aligned} & \hline 8.32 \\ & (21.45) \end{aligned}$ | $\begin{aligned} & \hline 8.85 \\ & (6.37) \end{aligned}$ | $\begin{aligned} & 11.53 \\ & (30.28) \end{aligned}$ | $\begin{aligned} & \hline 11.87 \\ & (2.94) \end{aligned}$ | $\begin{aligned} & \hline 13.66 \\ & (15.08) \end{aligned}$ |
| 3. | Share Capital | $9.20$ | $\begin{aligned} & 26.22 \\ & (185) \end{aligned}$ | $\begin{aligned} & 8.41 \\ & (46.49) \end{aligned}$ | $\begin{aligned} & \hline 61.65 \\ & (60.50) \end{aligned}$ | $\begin{aligned} & \hline 523.88 \\ & (749.76) \end{aligned}$ | $\begin{aligned} & 952.40 \\ & (81.79) \end{aligned}$ | $\begin{aligned} & \hline 2169.76 \\ & (127.82) \end{aligned}$ | $\begin{aligned} & 3386.17 \\ & (56.06) \end{aligned}$ | $\begin{aligned} & 7527.98 \\ & (122.31) \end{aligned}$ | $\begin{aligned} & 11461.65 \\ & (52.28) \end{aligned}$ | 17238. <br> 29 <br> $(50.39)$ <br> 87379 |
| 4. | Working Capital | $21.02$ | $\begin{aligned} & 141.03 \\ & (552.31 \\ & ) \end{aligned}$ | $\begin{aligned} & 207.09 \\ & (46.84) \end{aligned}$ | 353.34 $(706.21$ $)$ | $\begin{aligned} & 5277.33 \\ & (1393.55 \\ & ) \end{aligned}$ | $\begin{aligned} & 7341.08 \\ & (39.10) \end{aligned}$ | $\begin{aligned} & 16455.6 \\ & 1 \\ & (124.15) \end{aligned}$ | $\begin{aligned} & 42142.5 \\ & 2 \\ & (156.09) \end{aligned}$ | $\begin{aligned} & 147469.7 \\ & 6 \\ & (249.93) \end{aligned}$ | $\begin{aligned} & 338989.2 \\ & 0 \\ & (129.87) \end{aligned}$ | $\begin{aligned} & 873794 \\ & .49 \\ & (157.76 \end{aligned}$ |
| 5. | Loans <br> Advanced <br> (ST \& MT) | $2.06$ | $\begin{aligned} & 6.35 \\ & (208.25 \\ & ) \end{aligned}$ | $\begin{aligned} & 8.46 \\ & (33.22) \end{aligned}$ | $\begin{aligned} & 25.23 \\ & (198.22 \\ & ) \end{aligned}$ | $\begin{aligned} & 516.57 \\ & (1947.04 \\ & ) \end{aligned}$ | $\begin{aligned} & 649.59 \\ & (25.75) \end{aligned}$ | $\begin{aligned} & 1202.29 \\ & (85.08) \end{aligned}$ | $\begin{aligned} & 1674.60 \\ & (39.20) \end{aligned}$ | $\begin{aligned} & \hline 654.11 \\ & (118.20) \end{aligned}$ | $\begin{aligned} & 6808.92 \\ & (86.33) \end{aligned}$ | $\begin{aligned} & 18348 . \\ & 90 \\ & (169.48 \\ & \hline \end{aligned}$ |
| 6. | Marketin $g \quad$ of Agricultur e Produce | $8.67$ | $\begin{aligned} & 38.71 \\ & (346.48 \\ & ) \end{aligned}$ | $\begin{aligned} & 24.00 \\ & (-38.00) \end{aligned}$ | $\begin{aligned} & \hline 97.82 \\ & (307.58 \\ & ) \end{aligned}$ | $\begin{aligned} & 156.95 \\ & (60.44) \end{aligned}$ | $\begin{aligned} & 383.44 \\ & (144.30 \end{aligned}$ | $\begin{aligned} & \hline 795.71 \\ & (107.51) \end{aligned}$ | $\begin{aligned} & 3575.90 \\ & (349.39) \end{aligned}$ | $\begin{aligned} & 4626.61 \\ & (29.38) \end{aligned}$ | $\begin{aligned} & 5027.15 \\ & (8.65) \end{aligned}$ | $\begin{aligned} & \hline 3371.1 \\ & 8 \\ & (- \\ & 32.94) \\ & \hline \end{aligned}$ |
| 7. | Distributi on of Consumer Goods | $25.55$ | $\begin{aligned} & 98.01 \\ & (283.60 \\ & ) \end{aligned}$ | $\begin{aligned} & 73.02 \\ & (-25.49) \end{aligned}$ | $\begin{aligned} & \hline 254.33 \\ & (248.30 \\ & ) \end{aligned}$ | $\begin{aligned} & 1305.29 \\ & (413.22) \end{aligned}$ | $\begin{aligned} & 920.10 \\ & (-29.50) \end{aligned}$ | $\begin{aligned} & 5286.20 \\ & (474.52) \end{aligned}$ | $\begin{aligned} & 7189.87 \\ & (36.01) \end{aligned}$ | $\begin{aligned} & 11232.83 \\ & (56.23) \end{aligned}$ | $\begin{aligned} & 15554.56 \\ & (38.47) \end{aligned}$ | $\begin{aligned} & \hline 28753 . \\ & 89 \\ & (84.85) \end{aligned}$ |
| 8. | Coverage of Rural Populatio n under Cooperative | 15\% | 22\% | 30\% | 43\% | 76\% | 89\% | 87\% | 100\% | 100\% | 100\% | 100\% |

Source: Annual Administrative Reports
Table 2: Progress of Co-operative Movement in Himachal Pradesh (Amount in Lakhs)

| Sr. <br> No. | Particulars | 1999-2000 | 2000-01 | 2001-02 | 2002-03 | 2003-04 | 2004-05 | 2005-06 | 2006-07 | Absolute increase in 2006-07 over 19992000 | \%age <br> change <br> in 2006- <br> 07 over <br> 1999- <br> 2000 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. | No of cooperative Societies | 4334 | 4340 | 4368 | 4279 | 4283 | 4332 | 4382 | 4404 | 70 | 2\% |
| 2. | Membershi $p$ (in lakh) | 11.87 | 12.25 | 12.60 | 12.56 | 12.82 | 13.20 | 13.47 | 13.66 | 1.79 | 15\% |
| 3. | Share Capital | 11461.65 | 12441.96 | 12818.38 | 13709.12 | 15112.50 | 15609.60 | 16770.47 | 17238.29 | 5777.29 | 50\% |
| 4. | Deposits | 231498.44 | 271953.44 | 343025.65 | 405269.60 | 457892.18 | 506033.56 | 552125.05 | 612601.60 | 381103.16 | 164\% |
| 5. | Working Capital | 338939.20 | 410529.67 | 456902.50 | 575271.19 | 658651.49 | 729428.71 | 794247.35 | 873794.69 | 534855.29 | 157\% |
| 6. | Marketing of Agricultural Produce | 5027.15 | 5334.93 | 3674.66 | 3381.38 | 4470.91 | 3971.91 | 3243.30 | 3371.18 | -1655.97 | -32\% |
| 7. | Sale of Agricultural Inputs | 4614.67 | 4893.72 | 4978.79 | 4711.72 | 5560.38 | 18272.19 | 5865.35 | 7664.04 | 3049.37 | 66\% |
| 8. | Sale of Consumer Goods | 1554.56 | 31465.51 | 22144.74 | 19859.47 | 20415.55 | 27425.76 | 25360.51 | 28753.89 | 13199.33 | 85\% |


| 9. | Loans <br> Advanced <br> During the <br> year (Agri. <br> \& non Agri. <br>  <br> LT) | 22376.24 | 32197.64 | 27008.97 | 26237.76 | 43516.78 | 41957.74 | 40387.25 | 37769.52 | 15393.28 | 68\% |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 10. | Recovering of Loans | 15910.12 | 25531.65 | 22219.29 | 20750.14 | 36901.11 | 32935.63 | 32083.08 | 31049.55 | 15139.43 | 95\% |
| 11. | Outstanding Loans | 32910.46 | 44053.12 | 48769.34 | 54278.26 | 60879.23 | 69459.54 | 77767.62 | 83982.56 | 51072.1 | 155\% |
| 12. | Overdues | 5220.28 | 6400.68 | 8680.47 | 9462.30 | 10032.46 | 11173.70 | 12121.67 | 13122.53 | 7902.25 | 151\% |

Table 1 depicts the progress of co-operative movement in the state during the period between 1951 to 2006-07. It is clear from the table that in the beginning of First Five Year Plan, the numbers of co-operative societies were 843 , which decreased to 745 at the end First Five Year Plan thereby registering a decrease of 11.62 percent in number of societies. It is worth while to note that at the end of Second Five Year Plan, the number of co-operative societies increased by 32.08 percent, whereas at the end of third plan, the number of societies were 1184 , showing an increase of 11.76 percent. With the reorganization of state in 1966 , the number of co-operative societies increased enormously by 230.07 percent. However, it declined by 2.77 percent at the end of Fifth Five Year Plan and further decreased by 3.41 percent at the end of Sixth Five Year Plan. But it is important to note that the number of co-operative societies stood at 3958 at the end of Seventh Five Year Plan with the growth of 14.56 percent. At the end of 2006-07, the number of societies decreased to 4404 , but it is more than that was at the end of ninth plan i.e. 4334 societies.
The table further depicts the membership of co-operative societies, which increased by 104 percent at the end of first plan, it further increased by 54.0 percent at the end of second plan. It increased by 59.49 percent at the end of third plan, whereas at the end of fourth plan, it increased by 370.63 percent. Since then it has shown an increasing trend and the membership increased at the end of ninth plan to 11.87 lakh, which further increased to 13.66 lakh in 2006-07. The table also shows that share capital has increased by $185,46.49,60.50,749.76,81.79,127.82$, 56.06, 122.31, 52.28, and 50.39 percent during the period from First Five Year Plan to Ninth Five Year Plan and end of 2006-07 year, respectively.
Same is the case with working capital. The co-operative societies advanced short-term and medium-term loans to its members. It has increased by $208.25,33.22,198.22,1947.44,25.75,85.08,39.28,118.20,86.33$ and 169.48 percent during this period. The table further depicts that in the field of marketing activities, co-operatives made good progress at the end of First, Third and Seventh Plan by 346.48 , 307.58 and 349.39 percent, respectively. However, in Second Plan, there was negative impact of 38 percent on marketing activities as compared to the First Plan. Distribution system was adversely affected to the tune of 25.49 and 29.05 percent at the end of $2^{\text {nd }}$ and $5^{\text {th }}$ Plan, respectively. It is obvious from the table that coverage of population in rural areas started from $15 \%$ in the beginning of First Plan and at the end of Seventh Plan; it achieved 100 percent coverage of rural population. This 100 percent coverage of rural population is maintained in the co-operative sector, till the end of 2006-07.
Table 2 reveals the progress of co-operative movement in Himachal Pradesh from 1999-2000 to 2006-07. The number of societies has increased during this period to the extent of 2 percent, with absolute increase of 70 societies. Similarly, membership during the same period has also increased by 15 percent, with absolute increase of 1.79 lakh. But, the marketing of agricultural produce has decreased by 32 percent with absolute decrease of 1655.97 . There was tremendous increase in share capital and deposits of 50 and 164 percent, respectively as on $2006-07$ over 1999-2000. The major increase can also be seen in the working capital of societies. It has increased by 157 percent during the period with absolute increase of Rs. 534855.29 lakh. The loaning business of societies has increased by 68 percent with absolute increase of Rs. 15393.98 lakh. The trading business of co-operative societies has also recorded sizable increase of 85 percent with absolute increase of Rs. 13199.33 lakh. The alarming situation of co-operative movement can also be witnessed in the sphere of outstanding loan which increased by 155 percent and overdues 151 percent with absolute increase of Rs. 510721 lakh and Rs. 7902.25 lakh respectively during this period. Though, the recovery position is showing health sign of 95 percent increase with absolute increase of Rs. 15139.43 lakh. It can be concluded from the table that in Himachal Pradesh membership is increasing but with slow pace, share capital and deposits are increasing with good pace strengthening the resource base of societies. Resultantly, working capital is also increased with good pace. This situation will boost the NPA position in the cooperative societies, which may result erosion of the resource base of there institutions.

## CO-OPERATIVE MOVEMENT IN KULLU

Kullu district is located in the Northern part of Himachal Pradesh between $31^{\circ} 58^{\prime}$ Northern latitude and $77^{\circ} 64^{\prime}$ longitude. Agriculture is the major economic activity and about $80 \%$ of the workers are engaged in agricultural activities. There are 551 co-operative institutions functioning in Kullu district as on 31.03 .2007 , out of which 313 PACS are serving the rural economy of Kullu district by the way of providing them agricultural credit, fertilizer and consumer goods. The district is also having good potential of fruit and vegetables. Marketing and processing industrial co-operative societies have been also setup in the district. However, the primary fruit and vegetable co-operative processing and industrial societies are performing very well in the district. Another area of cooperation in Kullu district is handloom/weavers industrial cooperative societies, which has given name and fame to this district. (Progress Report of Statistics of Co-operative Movement in Kullu, 2007)

## REVIEW OF LITERATURE

Sharma (1972) carried out a study on 'comparative evaluation of the role of co-operative and commercial bank in farm financing'. He observed that the position of deposits in co-operative and commercial banks was poor ranging between 38.8 percent and 42.2 percent, respectively during 1968-69. The position of loans outstanding during this period was quite miserable, as it was about 50 percent of working capital of state co-operative and C.C.B.

Kumar (1982) pointed out that co-operative played an important role for rural development by providing effective marketing and credit facilities to agriculturists. Study revealed that co-operatives also help in economic development by way of integrating various types of cooperatives which help in increasing production, effective utilization of resources, increasing employment opportunities, remove poverty and increase standard of living.
Sharma and Sharma (1992) conducted a study on co-operative agricultural finance in hilly areas. They stated that cooperative banks provided banking facilities to highly distinguished agricultural sector of the country's economy. The authors attempted to study the role of Co-operative banks in hilly areas of the Jammu division. The role of co-operative banking in financing agriculture in sampled areas had been studied under concentration and extent of co-operative credit by identifying the agricultural status of the beneficiaries composing land holding size, possession of live stock, implements and disbursement.
ICDP (1994) concluded that the role of cooperatives in marketing of agricultural produce had acquired new dimension in changing scenario of globalization and liberalization of nation economy. In conjunction with public sector corporation, the cooperatives provided support as agents to these institutions for purchase of produce directly from farmers, eliminating the exploitative practice of middle man.
Singh (2004) conducted a study on agricultural sector reforms. He concluded that credit needs of farmers were varied and for finance the farmers relied on several institutional and non-institutional sources of credit. Among them the role of cooperatives in financing agriculture had been almost negligible during the early 50s in the country. Over the years the share of cooperatives had increased from $3.1 \%$ to $46.16 \%$ of the total credit supplied to farmers.
The present research is divided into four sections. The present section deals with introduction and following sections describes the research methodology of the study. The third section makes the analysis of the data and interpretation thereof and the last section gives the concluding remarks.

## NEED AND SCOPE OF THE STUDY

The cooperatives are rendering services in the various areas like production, finance, marketing, personnel's, etc. They have to follow appropriate techniques to discharge such vital services to the society. This is possible only if these institutions are managed by competent professionals and trained personnel's. Cooperatives have admittedly been accorded a position of cardinal importance in the rural economy of India. These have now emerged as a significant third sector in India. Co-operative has made tremendous progress and has covered about more than 50 percent of rural population. There have diversified its activities in number of directions especially in the field of agriculture, marketing, processing, spinning, fertilizer, sugar and various consumable items, etc., in the rural India. As a result, its character, approach, functioning and outlook have much changed towards profitability and profits, which has become measure and yardstick to assess and evaluate the extent of success of cooperatives. In a state like Himachal Pradesh, cooperative sector can play an important role in accelerating the economic pace. In hilly region like ours, the co-operative is a necessity to generate employment opportunities to local people. There are more than 4332 cooperative institutions, which are working in the state. These institutions are providing not only the financial help to the rural people, but also implementing training and employment generation programmes for the artisans, especially in order to upgrade their skill and in helping then earn a better livelihood.
In the present study, an attempt has been made to examine "An Evaluation of Cooperative Societies Financed by ICDP in Himachal Pradesh: A Study of Kullu District". First of all a list of all cooperative societies functioning in Kullu district has been obtained from the ARCS office Kullu. The present study covers the cooperative societies which have availed assistance from the project has been prepared in different sectors i.e. PACS, Handloom Societies, Marketing Societies, Consumer Store, etc.

## OBJECTIVES OF THE STUDY

- to study the progress of cooperative movement in Himachal Pradesh during the Five Year Plans.
- to study the short-term and long term solvency of the societies.
- to assess the impact of ICDP investment in meeting project objectives of the co-operative societies.


## RESEARCH METHODOLOGY

For the collection of data and other information's, secondary sources have been used. The secondary data has been collected from the various annual reports such as Annual Reports of concern Cooperative Societies, Annual Administrative Report of Cooperative Department of H.P. Govt., Publication of Directorate of Economics and Statistics and Report prepared by ICDP Kullu. While selecting these societies equal preference have been given to the societies operating in rural and urban area. The data drawn from various sources have been analyzed with the help of various accounting, tools and techniques. Statistical tests and mathematical tests have been applied in appropriate context.

| Ratios | Years |  |  |  |  |  |  |  | (RS. IN LAKHS) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1996-97 | 1997-98 | 1998-99 | 1999-00 | 2000-01 | 2001-02 | 2002-03 | 2003-04 | 2004-05 | 2005-06 | 2006-07 |
| Current Ratio | $\begin{aligned} & 6.00 \\ & (-) \end{aligned}$ | $\begin{aligned} & \hline 5.84 \\ & (-2.67) \end{aligned}$ | $\begin{aligned} & \hline 4.51 \\ & (-22.77) \end{aligned}$ | $\begin{aligned} & \hline 2.30 \\ & (-49.00) \end{aligned}$ | $\begin{aligned} & \hline 1.89 \\ & (-17.83) \end{aligned}$ | $\begin{aligned} & \hline 2.38 \\ & (25.92) \end{aligned}$ | $\begin{aligned} & 8.74 \\ & (267.23) \end{aligned}$ | $\begin{aligned} & \hline 2.69 \\ & (-69.22) \end{aligned}$ | $\begin{aligned} & \hline 2.18 \\ & (-18.26) \end{aligned}$ | $\begin{aligned} & 1.60 \\ & (-26.61) \end{aligned}$ | $\begin{aligned} & \hline 1.49 \\ & (-6.88) \end{aligned}$ |
| Liquidity Ratio | $\begin{aligned} & 2.68 \\ & (-) \end{aligned}$ | $\begin{aligned} & \hline 2.15 \\ & (-19.78) \end{aligned}$ | $\begin{aligned} & \hline 2.04 \\ & (-5.12) \end{aligned}$ | $\begin{aligned} & \hline 1.10 \\ & (-46.08) \end{aligned}$ | $\begin{aligned} & .69 \\ & (-37.27) \end{aligned}$ | $\begin{aligned} & 1.32 \\ & (91.30) \end{aligned}$ | $\begin{aligned} & 1.30 \\ & (-1.52) \end{aligned}$ | $\begin{aligned} & 1.62 \\ & (24.62) \end{aligned}$ | $\begin{aligned} & 1.40 \\ & (-13.58) \end{aligned}$ | $\begin{aligned} & 0.80 \\ & (-42.86) \end{aligned}$ | $\begin{aligned} & \hline 0.93 \\ & (16.25) \end{aligned}$ |
| Debt Equity Ratio | $\begin{aligned} & 1.75 \\ & (-) \end{aligned}$ | $\begin{aligned} & \hline 1.63 \\ & (-6.86) \end{aligned}$ | $\begin{aligned} & \hline 1.55 \\ & (-4.91) \end{aligned}$ | $\begin{aligned} & \hline 1.43 \\ & (-7.74) \end{aligned}$ | $\begin{aligned} & \hline 1.39 \\ & (-2.80) \end{aligned}$ | $\begin{aligned} & \hline 0.31 \\ & (-77.70) \end{aligned}$ | $\begin{aligned} & \hline 0.92 \\ & (106.77) \end{aligned}$ | $\begin{aligned} & \hline 0.88 \\ & (-4.35) \end{aligned}$ | $\begin{aligned} & \hline 0.95 \\ & (7.95) \end{aligned}$ | $\begin{aligned} & \hline 0.98 \\ & (3.15) \end{aligned}$ | $\begin{aligned} & \hline 0.68 \\ & (-30.61) \end{aligned}$ |
| Proprietary <br> Ratio | $\begin{aligned} & 28.83 \\ & (-) \end{aligned}$ | $\begin{aligned} & 29.27 \\ & (1.53) \end{aligned}$ | $\begin{aligned} & 28.66 \\ & (-2.08) \end{aligned}$ | $\begin{aligned} & 26.36 \\ & (-8.03) \end{aligned}$ | $\begin{aligned} & 28.18 \\ & (6.90) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 32.84 \\ & (16.54) \end{aligned}$ | $\begin{aligned} & 28.99 \\ & (-11.72) \end{aligned}$ | $\begin{aligned} & \hline 34.57 \\ & (19.25) \\ & \hline \end{aligned}$ | $\begin{aligned} & 31.89 \\ & (-7.75) \end{aligned}$ | $\begin{aligned} & \hline 35.30 \\ & (10.69) \end{aligned}$ | $\begin{aligned} & 23.58 \\ & (-4.87) \end{aligned}$ |
| Solvency Ratio | $\begin{aligned} & 71.17 \\ & (-) \end{aligned}$ | $\begin{aligned} & \hline 70.73 \\ & (-0.62) \end{aligned}$ | $\begin{aligned} & 71.34 \\ & (0.86) \end{aligned}$ | $\begin{aligned} & 73.64 \\ & (3.22) \end{aligned}$ | $\begin{aligned} & \hline 62.90 \\ & (-14.58) \end{aligned}$ | $\begin{aligned} & 67.16 \\ & (6.77) \end{aligned}$ | $\begin{aligned} & 71.01 \\ & (5.73) \end{aligned}$ | $\begin{aligned} & \hline 65.43 \\ & (-7.86) \end{aligned}$ | $\begin{aligned} & 68.11 \\ & (4.10) \end{aligned}$ | $\begin{aligned} & 64.70 \\ & (-5.01) \end{aligned}$ | $\begin{aligned} & 66.42 \\ & (2.66) \end{aligned}$ |

Source: Compiled from Annual Statement of Himbunkar, Kullu 1997-2007.
TABLE 4: LONG-TERM \& SHORT-TERM SOLVENCY OF BHUTTI WEAVERS COOPERATIVE SOCIETY LTD. (RS. IN LAKHS)

| Ratios | Years |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1996-97 | 1997-98 | 1998-99 | 1999-00 | 2000-01 | 2001-02 | 2002-03 | 2003-04 | $\begin{aligned} & \text { 2004- } \\ & 05 \end{aligned}$ | 2005-06 | 2006-07 |


| Current Ratio | $\begin{aligned} & 6.50 \\ & (-) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 6.09 \\ & (-6.31) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 0.18 \\ & (-97.04) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 4.14 \\ & (2200.00) \end{aligned}$ | $\begin{aligned} & \hline 1.01 \\ & (-75.60) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 1.54 \\ & (52.48) \\ & \hline \end{aligned}$ | $\begin{aligned} & 1.69 \\ & (9.74) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 7.16 \\ & (323.67) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 8.27 \\ & (15.50) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 7.82 \\ & (-5.44) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 14.12 \\ & (80.56) \\ & \hline \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Liquidity Ratio | $\begin{aligned} & 1.61 \\ & (-) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 0.59 \\ & (-63.35) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.19 \\ & (-67.80) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 0.67 \\ & (252.63) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 0.19 \\ & (-71.64) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 0.65 \\ & (242.11) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 0.85 \\ & (30.77) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 3.34 \\ & (292.94) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 4.33 \\ & (29.64) \\ & \hline \end{aligned}$ | $\begin{aligned} & 4.06 \\ & (-6.24) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 6.84 \\ & (68.47) \\ & \hline \end{aligned}$ |
| Debt Equity Ratio | $\begin{aligned} & 5.46 \\ & (-) \end{aligned}$ | $\begin{aligned} & 5.37 \\ & (-1.65) \end{aligned}$ | $\begin{aligned} & 3.62 \\ & (-32.59) \end{aligned}$ | $\begin{aligned} & 5.34 \\ & (47.51) \end{aligned}$ | $\begin{aligned} & 0.51 \\ & (-90.45) \end{aligned}$ | $\begin{aligned} & 0.37 \\ & (-27.45) \end{aligned}$ | $\begin{aligned} & 0.73 \\ & (97.30) \end{aligned}$ | $\begin{aligned} & 4.78 \\ & (554.79) \end{aligned}$ | $\begin{aligned} & 5.72 \\ & (19.67) \end{aligned}$ | $\begin{aligned} & 2.72 \\ & (-52.45) \end{aligned}$ | $\begin{aligned} & 2.92 \\ & (7.35) \end{aligned}$ |
| Proprietary Ratio | $\begin{aligned} & 17.34 \\ & (-) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 17.27 \\ & (-0.40) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 19.19 \\ & (11.12) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 18.32 \\ & (-4.53) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 21.27 \\ & (16.10) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 18.59 \\ & (-12.60) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 18.34 \\ & (-1.34) \end{aligned}$ | $\begin{aligned} & \hline 17.42 \\ & (-5.02) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 16.01 \\ & (-8.09) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 21.72 \\ & (35.67) \\ & \hline \end{aligned}$ | $\begin{aligned} & 19.67 \\ & (-9.44) \\ & \hline \end{aligned}$ |
| Solvency Ratio | $\begin{aligned} & 82.66 \\ & (-) \\ & \hline \end{aligned}$ | $\begin{aligned} & 82.73 \\ & (0.08) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 80.81 \\ & (-2.32) \\ & \hline \end{aligned}$ | $\begin{aligned} & 81.68 \\ & (1.08) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 78.73 \\ & (-3.61) \\ & \hline \end{aligned}$ | $\begin{aligned} & 81.41 \\ & (3.40) \\ & \hline \end{aligned}$ | $\begin{aligned} & 81.66 \\ & (0.31) \\ & \hline \end{aligned}$ | $\begin{aligned} & 82.58 \\ & (1.13) \\ & \hline \end{aligned}$ | $\begin{aligned} & 83.99 \\ & (1.71) \\ & \hline \end{aligned}$ | $\begin{aligned} & 78.28 \\ & (-6.80) \\ & \hline \end{aligned}$ | $\begin{aligned} & 80.33 \\ & (2.62) \\ & \hline \end{aligned}$ |

Source: Compiled from Annual Statement of Bhutti Weavers Cooperative Society Ltd, Kullu 1997-2007.
TABLE 5: LONG-TERM \& SHORT-TERM SOLVENCY OF LAHOUL POTATO GROWERS COOPERATIVE MARKETING CUM-PROCESSING SOCIETY
LTD. (Rs. In lakhs)

| Ratios | Years |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{aligned} & \hline 1996- \\ & 97 \\ & \hline \end{aligned}$ | 1997-98 | 1998-99 | 1999-00 | 2000-01 | 2001-02 | 2002-03 | 2003-04 | 2004-05 | 2005-06 | 2006-07 |
| Current <br> Ratio | $\begin{aligned} & 1.76 \\ & (-) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 2.33 \\ & (32.39) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 1.58 \\ & (-32.19) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 2.08 \\ & (31.65) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 1.69 \\ & (-18.75) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 2.18 \\ & (29.00) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 2.19 \\ & (0.46) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 3.66 \\ & (67.12) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 3.12 \\ & (-14.75) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 2.94 \\ & (-5.77) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 1.85 \\ & (-37.07) \\ & \hline \end{aligned}$ |
| Liquidity Ratio | $\begin{aligned} & 1.58 \\ & (-) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 2.14 \\ & (35.44) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 1.41 \\ & (-34.11) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 1.91 \\ & (35.46) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 1.49 \\ & (-21.99) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 2.01 \\ & (34.90) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 2.02 \\ & (0.50) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 3.39 \\ & (67.82) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 2.87 \\ & (-15.34) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 2.72 \\ & (-5.23) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 1.75 \\ & (-35.66) \\ & \hline \end{aligned}$ |
| Debt Equity Ratio | $\begin{aligned} & 1.61 \\ & (-) \\ & \hline \end{aligned}$ | $\begin{aligned} & 1.49 \\ & (-7.45) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 0.87 \\ & (-41.61) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 0.58 \\ & (-33.33) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.77 \\ & (32.76) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.49 \\ & (36.36) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 0.58 \\ & (18.37) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.76 \\ & (31.03) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.80 \\ & (5.26) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.76 \\ & (-5.00) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 0.48 \\ & (-36.84) \\ & \hline \end{aligned}$ |
| Proprietary Ratio | $\begin{aligned} & 18.39 \\ & (-) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 23.36 \\ & (27.03) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 22.75 \\ & (-2.61) \\ & \hline \end{aligned}$ | $\begin{aligned} & 33.71 \\ & (48.18) \\ & \hline \end{aligned}$ | $\begin{aligned} & 32.97 \\ & (-2.20) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 38.07 \\ & (15.47) \\ & \hline \end{aligned}$ | $\begin{aligned} & 36.04 \\ & (-5.33) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 41.51 \\ & (15.18) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 37.18 \\ & (-10.43) \\ & \hline \end{aligned}$ | $\begin{aligned} & 38.44 \\ & (3.39) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 47.93 \\ & (24.68) \\ & \hline \end{aligned}$ |
| Solvency Ratio | $\begin{aligned} & 81.61 \\ & (-) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 76.64 \\ & (-6.09) \\ & \hline \end{aligned}$ | $\begin{aligned} & 77.25 \\ & (0.80) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 66.29 \\ & (-14.19) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 67.03 \\ & (1.12) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 61.93 \\ & (-7.61) \\ & \hline \end{aligned}$ | $\begin{aligned} & 63.96 \\ & (3.28) \\ & \hline \end{aligned}$ | $\begin{aligned} & 58.49 \\ & (-8.55) \\ & \hline \end{aligned}$ | $\begin{aligned} & 62.82 \\ & (7.40) \\ & \hline \end{aligned}$ | $\begin{aligned} & 61.56 \\ & (-2.01) \end{aligned}$ | $\begin{aligned} & \hline 52.07 \\ & (-15.42) \\ & \hline \end{aligned}$ |

Source: Compiled from Annual Statement of Lahoul Potato Growers Coop. Marketing Cum-processing Society Ltd. Manali 1997-2007. TABLE 6: LONG-TERM \& SHORT-TERM SOLVENCY OF KULLU REGIONAL COOPERATIVE MARKETING AND CONSUMER SOCIETY LTD.
(Rs. In lakhs)

| Ratios | Years |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1996-97 | 1997-98 | 1998-99 | 1999-00 | 2000-01 | 2001-02 | 2002-03 | 2003-04 | 2004-05 | 2005-06 | 2006-07 |
| Current <br> Ratio | $\begin{aligned} & \hline 0.64 \\ & (-) \end{aligned}$ | $\begin{aligned} & 0.61 \\ & (-4.69) \end{aligned}$ | $\begin{aligned} & \hline 0.66 \\ & (8.20) \end{aligned}$ | $\begin{aligned} & \hline 3.34 \\ & (406.06) \end{aligned}$ | $\begin{aligned} & \hline 3.36 \\ & (0.59) \end{aligned}$ | $\begin{aligned} & \hline 5.02 \\ & (49.40) \end{aligned}$ | $\begin{aligned} & \hline 10.35 \\ & (106.18) \end{aligned}$ | $\begin{aligned} & \hline 3.40 \\ & (-67.15) \end{aligned}$ | $\begin{aligned} & \hline 6.44 \\ & (89.41) \end{aligned}$ | $\begin{aligned} & 6.15 \\ & (-4.50) \end{aligned}$ | $\begin{aligned} & \hline 5.43 \\ & (-11.70) \end{aligned}$ |
| Liquidity Ratio | $\begin{aligned} & 0.57 \\ & (-) \\ & \hline \end{aligned}$ | $\begin{aligned} & 0.55 \\ & (-3.51) \end{aligned}$ | $\begin{aligned} & \hline 0.56 \\ & (1.82) \end{aligned}$ | $\begin{aligned} & \hline 2.86 \\ & (410.71) \end{aligned}$ | $\begin{aligned} & \hline 2.89 \\ & (1.05) \end{aligned}$ | $\begin{aligned} & \hline 4.40 \\ & (52.25) \end{aligned}$ | $\begin{aligned} & \hline 9.72 \\ & (120.90) \end{aligned}$ | $\begin{aligned} & \hline 3.01 \\ & (-69.03) \end{aligned}$ | $\begin{aligned} & \hline 5.80 \\ & (92.69) \end{aligned}$ | $\begin{aligned} & \hline 4.59 \\ & (-20.86) \end{aligned}$ | $\begin{aligned} & 4.48 \\ & (-2.40) \end{aligned}$ |
| Debt Equity Ratio | $(-)$ | $(-)$ | $(-)$ | $(-)$ | $(-)$ | $(-)$ | $(-)$ | $(-)$ | $(-)$ | $\begin{aligned} & \hline 0.47 \\ & (-) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 0.25 \\ & (-46.81) \end{aligned}$ |
| Proprietary <br> Ratio | $\begin{aligned} & 18.44 \\ & (-) \\ & \hline \end{aligned}$ | $\begin{aligned} & 19.15 \\ & (3.85) \end{aligned}$ | $\begin{aligned} & \hline 17.19 \\ & (-10.23) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 61.73 \\ & (259.10) \end{aligned}$ | $\begin{aligned} & \hline 37.11 \\ & (-39.88) \end{aligned}$ | $\begin{aligned} & \hline 67.24 \\ & \text { (81.19) } \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 71.67 \\ & \text { (6.59) } \end{aligned}$ | $\begin{aligned} & \hline 43.09 \\ & (-39.88) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 67.25 \\ & (56.07) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 33.75 \\ & (-49.81) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 69.35 \\ & (105.48) \end{aligned}$ |
| Solvency Ratio | $\begin{aligned} & 81.56 \\ & (-) \\ & \hline \end{aligned}$ | $\begin{aligned} & 80.85 \\ & (-0.87) \\ & \hline \end{aligned}$ | $\begin{aligned} & 82.81 \\ & (2.42) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 38.27 \\ & (-53.79) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 62.89 \\ & (64.33) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 32.76 \\ & (-47.91) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 28.33 \\ & (-13.52) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 56.91 \\ & (100.88) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 32.75 \\ & (-42.45) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 66.25 \\ & (102.29) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 30.65 \\ & (-53.74) \\ & \hline \end{aligned}$ |

Source: Compiled from Annual Statement of Kullu Regional Coop. Marketing and Consumer Society Ltd., Kullu 1997-2007.
It is evident from the table 3 that Himbunkar shows remarkable improvement in its current ratio in the year 2002-03 which is 267.23 of the previous years. In the rest of the years it shows declining trend as compared to its respectively previous years. It shows that management of the society is inefficient in managing its current assets. There is also decline in its liquid ratio except in the years 2001-02 and 2003-04. It shows its poor management in the case of its liquid assets. In order to meet its current obligations in time they have to manage its current and liquid assets efficiently. Studying the debt equity ratio reveals that there is a declining trend in its ratio. But the proportion of the outsider's funds is more than shareholders funds in most of the years. It shows that they are arranging funds from the outsider's sources for financing their plans. It also supported by its proprietary and solvency ratios. In the case of proprietary ratio there is an increasing trend in most of the years. But its proportion to total assets is low in most of the years. Solvency ratio also shows an increasing trend in most of the years. The decline in the current and liquid ratio is a matter of great concern and it should not be continue in the future.
Table 4 reveals that in the initial years of 1997-98 and 1998-99 there is a decline in the current ratio of Bhutti Weavers. But after that there is an improvement in the current ratio except in the year 2005-06. The same trend found in the case of liquid ratio. It shows that the management of the society efficiently managed their current and liquid assets. The percentage of increase has improved remarkably in the years 1999-2000 and 2003-04. In the year 2003-04 this improvement may be possible due to merger of Kullu Valley Finishing and Dying Processing Co-operative Industrial Society Ltd. in this society. Debt equity ratio reveals that the use of outsider's funds is much more than shareholders funds in all the years except in the years of 2000-01, 2001-02 and 2002-03. It shows the increasing dependence of this society on debt capital as compared to its internal sources. In the case of proprietary ratio there is declining in this ratio in most of the years. But the proportion of shareholders funds is much less than total assets of the society. It is also supported by the proportion of total liabilities to outsiders to total assets of the society in the case of solvency ratio. This ratio shows increasing trend in most of the cases. But the excessive use of debt is not always good for the longterm solvency of a firm.
It is evident from the table 5 that current ratio and liquid ratios of Lahaul Potato Growers Cooperative Marketing cum-processing Society Ltd. Manali follow the same trend. Both these ratios shows decline in the years 1998-99, 2000-01, 2004-05 and 2005-06. It shows that the management of the society failed in managing its working capital efficiently in these years. But it should not be continued in the long-run. On studying debt equity ratio it has been found that the use of outsider's funds is much more than internal funds of the society. It can not be good for its sound long-term solvency. Proprietary ratio reveals that in the later on years the use of shareholders funds increased. The more use of debt in the initial years is also supported by solvency ratio.
It has been observed from the table 6 that current ratio of Kullu Regional Cooperative Marketing and Consumer Society Ltd. shows an increasing trend in most of the years. In the year 1999-2000, there is remarkable increase in this ratio which is 406.06 per cent of previous year. But it may be due to inefficient management of its stock and debtors. Liquid ratio also shows the same trend. In the later on years the proportion of liquid assets was much more than current liabilities. But it should not be continued in the long run. In the case of debt equity ratio, data was not available in most of the years of the present study. Studying proprietary ratio of the society reveals that the use of
shareholders funds has been increased. In the year 2006-07, there is a remarkable increase in this ratio. In the initial years, the share of outsider's funds was more than internal funds of the society. In order to compete in the market the management of the society has to manage its resources efficiently and effectively.

TABLE 8: SECTOR-WISE ACHIEVEMENTS UNDER ICDP KULLU (AMOUNT IN LAKH)

| Sr. No. | Activities | Total target of Project |  | Achievement |  | Balance |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Physical | Financial | Physical | Financial | Physical | Financial |
| 1. | Agriculture (Sector) |  |  |  |  |  |  |
|  | Construction of 50 MT Godown | 9 | 24.00 | $\begin{aligned} & \hline 8 \\ & (88.88) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 21.60 \\ & (90.00) \end{aligned}$ | $\begin{aligned} & \hline 1 \\ & (11.12) \\ & \hline \end{aligned}$ | $\begin{aligned} & 2.40 \\ & (10.00) \end{aligned}$ |
|  | Construction of shop | 20 | 24.00 | $\begin{aligned} & 20 \\ & (100.00) \end{aligned}$ | $\begin{aligned} & 24.00 \\ & (100.00) \end{aligned}$ |  |  |
|  | Renovation of Godown Major/Minor | 25 | 15.00 | $\begin{aligned} & 25 \\ & (100.00) \\ & \hline \end{aligned}$ | $\begin{aligned} & 13.32 \\ & (88.80) \end{aligned}$ | - | $\begin{aligned} & 1.68 \\ & (11.20) \end{aligned}$ |
|  | Safe Vaults | 27 | 6.48 | $\begin{aligned} & 27 \\ & (100.00) \end{aligned}$ | $\begin{aligned} & 6.48 \\ & (100.00) \\ & \hline \end{aligned}$ | - | - |
|  | Counters | 67 | 16.08 | $\begin{aligned} & 67 \\ & (100.00) \end{aligned}$ | $\begin{aligned} & 16.08 \\ & (100.00) \end{aligned}$ | - | - |
|  | Furniture and Fixture <br> Margin Money | 40 | $\begin{aligned} & 9.60 \\ & 71.31 \end{aligned}$ | $\begin{aligned} & 16 \\ & (40.00) \end{aligned}$ | $\begin{aligned} & 3.84 \\ & (40.00) \\ & 71.3 \\ & (100.00) \end{aligned}$ | $\begin{aligned} & 24 \\ & (60.00) \end{aligned}$ | $\begin{aligned} & 5.76 \\ & (60.00) \end{aligned}$ |
| 2. | Marketing Sector |  |  |  |  |  |  |
|  | Construction of 100 MT Godown | 2 | 8.40 | $\begin{aligned} & 2 \\ & (100.00) \end{aligned}$ | $\begin{aligned} & 8.40 \\ & (100.00) \end{aligned}$ | - | - |
|  | Vehicles | 3 | 18.00 | $\begin{aligned} & 2 \\ & (66.67) \end{aligned}$ | $\begin{aligned} & 7.29 \\ & (40.05) \\ & \hline \end{aligned}$ | - | $\begin{aligned} & \hline 10.71 \\ & (50.95) \\ & \hline \end{aligned}$ |
|  | Sheds | 4 | 16.80 | $\begin{aligned} & 2 \\ & (50.00) \end{aligned}$ | $\begin{aligned} & 16.80 \\ & (100.00) \end{aligned}$ | - | - |
|  | Margin Money | - | 20.21 | - | $\begin{aligned} & 20.21 \\ & (100.00) \end{aligned}$ | - | - |
| 3. | Allied Sector |  |  |  |  |  |  |
|  | Handloom Working Shed/Stores: |  |  |  |  |  |  |
| (i) | Large | 2 | 8.40 | $\begin{aligned} & \hline 2 \\ & (100.00) \\ & \hline \end{aligned}$ | $\begin{aligned} & 8.4 \\ & (100.00) \\ & \hline \end{aligned}$ | - | - |
| (ii) | Small | 21 | 50.40 | $\begin{aligned} & \hline 21 \\ & (100.00) \\ & \hline \end{aligned}$ | $\begin{aligned} & \hline 50.40 \\ & (100.00) \\ & \hline \end{aligned}$ | - | - |
|  | Showroom <br> Looms <br> Margin Money | 2 | $\begin{aligned} & 4.80 \\ & 7.00 \\ & 39.00 \end{aligned}$ | $\begin{aligned} & 2 \\ & (100.00) \\ & 16 \end{aligned}$ | $\begin{aligned} & 4.80 \\ & (100.00) \\ & 7.00 \\ & (100.00) \\ & 39.00 \\ & (100.00) \\ & \hline \end{aligned}$ | - - - | - - - |
| 4.  <br>  Apex Society |  |  |  |  |  |  |  |
|  | Margin Money | - | 10.00 | - | $\begin{aligned} & 10.00 \\ & (100.00) \end{aligned}$ | - | - |
| 5. | Dyeing Finishing House |  |  |  |  |  |  |
|  | Civil work <br> Plant and machinery | - - | $5.00$ <br> 21.162 | - | $\begin{aligned} & 5.00 \\ & (100.00) \\ & 21.162 \\ & (100.00) \end{aligned}$ | - - | - |
|  | Margin Money | - | 5.00 | - | $\begin{aligned} & 5.00 \\ & (100.00) \end{aligned}$ | - | - |
| 6. | Floriculture (Token) | - | 3.838 | - | - | - | $\begin{aligned} & 3.838 \\ & (100) \end{aligned}$ |
| 7. | Trout Fishing | - | 5.00 | - | $\begin{aligned} & 5.00 \\ & (100.00) \end{aligned}$ | - | - |
| 8. | Rope ways- four |  |  |  |  |  |  |
|  | Civil Works | - | 1.00 | - | $\begin{aligned} & 10.00 \\ & (100.00) \end{aligned}$ | - | - |
|  | Machinery | - | 8.00 | - | - | - | - |
|  | Margin Money | - | 1.00 | - | - | - | - |
| 9 | KCC Bank | - | 35.00 | - | 35.00 | - | - |



Source: Assistant Registrar Co-operative Societies, Kullu.
Note: Figures in parenthesis indicate the percentages in bracket.
As against an outlay of Rs. 24.00 lakh for construction of 20 new sales shops at a unit cost of Rs. 1.20 lakh, all the amount have been sanctioned and sales shops have been constructed by the PACS. Majority of sale shops are utilized by the beneficiary PACS. All the 25 cases sanctioned for renovation of old godowns have been completed and beneficiary PACS have started business in the renovated godowns. All 27 safe vaults as per the revised target with an outlay of Rs. 6.48 lakh have been provided to the co-operative societies in the district, which are utilized by the PACS for the purpose of deposits. Funds amounting to Rs. 16.08 lakh for providing sales counters in 67 co-operative societies (PACS) have been provided under the project. All these 67 sales counters have been sanctioned and installed in the PACS which are utilized by these PACS. As against the revised target of providing furniture and fixture to 40 PACS with a total outlay of Rs. 9.60 lakh, 16 cases have been sanctioned under the project. The outlay of Rs. 71.31 lakh kept under this head has been sanctioned in favour of PACS in the district.
While studying the marketing sector, a sum of Rs. 63.41 lakh has been kept under the marketing sector in the district. Most of the money sanctioned under this head has been given to primary marketing societies for purchase of vehicles and margin money. It has been found that in the case of vehicles and sheds, physical performance percentage of achievement of its target is about 50 percent. The performance of apex society and dyeing finishing is also satisfactory in the achievement of financial target set for these sectors. The society has installed the plant and machinery after completing the civil works. An additional amount of Rs 21.162 lakh has also been sanctioned for setting up additional plant and machinery. The society has started marketing of trout fish and the project is likely to increase in future.
The entire amount, as per the total provision of Rs 35.00 lakh, kept as share capital for the Kangra Central Co-operative Bank, has been sanctioned in favour of the Bank, as per year-wise phasing. As against the provision of Rs 84.54 lakh, for the cost of project implementation team (PIT), an amount of Rs 94.84 lakh has been spent under the project. The excess expenditure under this head has been due to inadequate provisions kept under salary to staff and other heads of PIT cost.
Against a total provision of Rs. 14.57 lakh kept under this head, an amount of Rs. 13.96 has been spent under the project. Various types of training camps for managing committees, employees and members of co-operatives have been organized in collaboration with co-operative training centre, Mashobra, ACSTI Shimla and RICM, Chandigarh, during the project period. Besides, inter-state and intra-state tours have also been organized under the project. The project had an outlay of Rs. 9.55 lakh for providing incentives to the employees of PACS. Out of the outlay, a sum of Rs. 1.23 lakh has been disbursed to the employees of the PACS as an incentive as per the prescribed norms. The rest of the amount remained unutilized under the project due to non-eligibility of the co-operative societies as per the norms prescribed by NCDC. Out of total outlay to the various sectors under different activities, expenditure amounting to Rs. 521.75 lakh has been made under the project, which is about 96 percent of the total outlay.

## CONCLUSION

The co-operation in the modern form took birth during the industrial revolution when working class felt exploited and helpless. Cooperation, as a subject, has attracted the attention of the social reformers, economists, sociologist, politicians, ethnologists and the Cooperators alike ever since its inception as a form of business organization in the middle of the nineteenth century. Co-operative institutions exist all over the world providing essential services, which would otherwise be unattainable. The progress during 1919-29 was more qualitative than quantitative. The reason was that over dues increased steadily.
In First Five Year Plan, the cooperation was recognized as an instrument of planned economic action in democracy. Regarding village cooperatives, their potential viability should be assessed on the basis of a programme for fulfilling certain essential conditions, such as bringing into the co-operative all rural families, effective implementation of the village agricultural production plan, linking credit with production and with marketing, supervision of the use of credit, undertaking the functions of distribution and supply, and attracting local savings to the maximum possible extent, as share capital and deposits. The Ninth Five Year Plan approved by the National Development Council, had inter-alia laid emphasis on evolving an environment in which co-operatives would become efficient, viable and competitive. It was also proposed to activate this through professionalization diversification of activities including market opportunities and effective recovery system.
Co-operative movement in Himachal Pradesh is showing a good progress. Himachal Pradesh is a hilly area with scattered population, even then co-operative movement is reaching to every village and is heading to its path of progress. To assist these societies in efficient delivery of services amongst the rural population of our villages, the state Govt. is providing financial assistance in the shape of capital and small doses of subsidy under the State Annual Plan i.e. normal plan, tribal sub-plan and special component plan. Kullu district is having good potential of fruit and vegetables. Marketing and processing industrial co-operative societies have been also setup in the district. The primary fruit and vegetable co-operative processing and industrial societies are performing very well in the district. Another area of cooperation in Kullu district is handloom/weavers industrial co-operative societies, which has given name and fame to this district. Well known Bhuttico has got national fame for its working. The membership of these co-operative institutions is diversified and the government has also injected handsome amount of money in the shape of share capital to different institutions.
The following suggestions emerged from the evaluation study may improve the functioning of ICDP as well as cooperative institutions to make them more useful oriented.

- Reorganization of PACS to make them viable is need of the hour to strengthen the Agriculture Credit Societies.
- There is an urgent need to involve the women section of our society in the fold of cooperative movement.
- Steps must be taken to conduct timely audit of the accounts. The un-audited societies as well as those which are audited but not furnished the compliance/rectification reports should be made ineligible for loaning and financial assistance.
- The Cooperative Societies those who are financially weak need more financial assistance from state govt. to recruit highly educated and trained personnel.
- There should be more use of shareholders funds as compared to the outsiders' funds in various cooperative societies of the state.
- Appropriate training may have to impart to the staff and office bearer of PACS in both credit and non credit business.
- Steps should be taken to ensure freedom of functional autonomy to PACS and a clear message should be derived that they are managed by democratically elected Board of Management.


## REFERENCES

1. Kulkarni, K. R., The Theory and Practice of Co-operative in Indian and Abroad.
2. Kumar, Naresh (1982) "Role of Co-operatives in Economics Development" Indian Co-operative Review, Vol. XX, No.1, pp.78-84.
3. Mathur, B. S. (1992) "Co-operative in India", Sahitya Bhawan Publication, Agra.
4. Progress Report (2007) of Statistics of Co-operative Movement in Kullu District, Assistant Registrar Co-operative Societies, Kullu.
5. Sharma, R. D. (1972) "A Comparative Evaluation of the Role of Co-operative and Commercial Banks inform Financing," India Co-operative Review, Vol. X, No.2, p. 187.
6. Sharma, R. D., Sharma, S.R. (1992) "Co-operative Agricultural Finance in Hilly Areas-A Case Study", The Indian Journal of Commerce, Vol. XI, V. Part-II, p. 142.
7. Singh, Rajpal (2004) "Agricultural Sector Reforms and Role of Cooperatives," The Indian Journal of Commerce, Vol. 57, No. 3.
8. Sharma, Vidya Sagar (1964) "Sahyoga or Indian Co-operation", Vidya Mandir Booksellers and Publications, Hosharirpur.
9. Verma, Shari (1996) "Leadership Skills Vital for Co-operative Managers", Indian Express, Chandigarh.

# MANAGEMENT OF DETERMINANTS OF WORKING CAPITAL - AN UPHILL TASK 

BHAVET<br>LECTURER \& MEMBER, BOARD OF STUDIES<br>M. M. INSTITUTE OF MANAGEMENT MAHARISHI MARKANDESHWAR UNIVERSITY MULLANA - 133203


#### Abstract

An efficient control over the working capital is one of the most important considerations of the financial management of any business undertaking. Working capital is an integral part of the total financial management. Management of current assets is called as working capital. Management of short-term assets and liabilities warrants a careful investigation since the working capital management plays an important role for the firm's profitability and risk as well as its value (Smith 1980). The optimal level of working capital is determined to a large extent by the methods adopted for the management of current assets and liabilities. It requires continuous monitoring to maintain proper level in various components of working capital i.e. cash receivables, inventory and payables etc. The present study investigates the relative relationship between the aggressive/conservative working capital policies and profitability as well as risk of firms for 28 public limited companies listed at Bombay Stock Exchange for the period of 2002-2009. The present study validates the findings of Carpenter and Johnson (1983) that there is no relationship between the level of current assets and liabilities and risk of the firms.


## KEYWORDS

Degree of aggressiveness/conservativeness, working capital policies, profitability, market rate of return, Tobin's q, operating risk, financial risk.

## INTRODUCTION

$\mathfrak{T}$he corporate finance literature has traditionally focused on the study of long-term financial decisions, particularly investments, capital structure, dividends or company valuation decisions. However, short-term assets and liabilities are important components of total assets and needs to be carefully analyzed. Management of these short-term assets and liabilities warrants careful investigation since the working capital management plays an important role for the firm's profitability and risk as well as its value (Smith, 1980). Efficient management of working capital is a fundamental part of the overall corporate strategy to create the shareholders' value. Firms try to keep an optimal level of working capital that maximizes their value. In general, from the perspective of Chief Financial Officer (CFO), Working capital management is simple and a straightforward concept of ensuring the ability of the organization to fund the difference between the short term assets and short term liabilities (Harris 2005). In practice, working capital management has become one of the most important issues in the organizations where many financial executives are struggling to identify the basic working capital drives and the appropriate level of working capital (Lamberson 1995). Consequently, companies can minimize risk and improve the overall performance by understanding the role and drivers of working capital.
A firm my adopt an aggressive working capital management policy with a low level of current assets as percentage of total assets or it may also used for the financing decisions of the firm in the form of high level of current liabilities as percentage of total liabilities. Excessive levels of current assets may have negative effect on the firm's profitability whereas a low level of current assets may lead to lower level of liquidity and stock outs resulting in difficulties in maintaining smooth operations (Van Horne and Wachowicz 2007). The main objective of working capital management is to maintain an optimal balance between each of the working capital components. Business success heavily depends on the ability of financial executive to effectively manage receivables, inventory, and payables (Filbeck and Krueger 2008). Firms can reduce their financing costs and/or increase the funds available for expansion projects by minimizing the amount of investment tied up in current assets. Most of the financial managers' time and effort are allocated in bringing non-optimal levels of current assets and liabilities back toward optimal levels. An optimal level of working capital would be the one in which a balance is achieved between risk and efficiency. It requires continuous monitoring to maintain proper level in various components of working capital i.e. cash receivables, inventory etc.
In general, current assets are considered as one of the important component of total assets of a firm. A firm may be able to reduce the investment in fixed assets by renting or leasing plant and machinery, whereas the same policy cannot be followed for the components of working capital. The high level of current assets may reduce the risk of liquidity associated with the opportunity cost of funds that may have been invested in long-term assets. The impact of working capital policies on profitability is highly important, however, a little empirical research has been carried out to examine this relationship. This paper investigates the potential relationship of aggressive/conservative policies with the accounting and market measures of profitability as well as the risk factor of Indian firms. The present study is expected to contribute to better understand these policies and their impact on profitability especially in the emerging markets like India.

## REVIEW OF LITERATURE

Many researchers have studied financial ratios as a part of working capital management; however, very few of them have discussed the working capital policies in specific. Some earlier work by Gupta (1969) and Gupta and Huefner (1972) examined the differences in financial ratio averages between industries. The conclusion of both the studies was that differences do exist in mean profitability, activity, leverage and liquidity ratios amongst industry groups. Johnson (1970) extended this work by finding cross-sectional stability of ratio groupings for both retailers and primary manufacturers. Pinches et al. (1973) used factor analysis to develop seven classifications of ratios, and found that the classifications were stable over the 1951-1969 time periods. Chu et al. (1991) analyzed the hospital sectors to observe the difference of financial ratios groups between hospital sectors and industrial firms sectors. Their study concluded that financial ratios groups were significantly different from those of industrial firms' ratios as well these ratios were relatively stable over the five years period.

In literature, there is a long debate on the risk/return tradeoff between working capital policies (Pinches 1991, Brigham and Ehrhardt 2004, Moyer et. al. 2005, Gitman 2005). More aggressive working capital policies are associated with higher return and higher risk while conservative working capital policies are concerned with the lower risk and return. Working capital management is important because of its effects on the firm's profitability and risk, and consequently its value (Smith, 1980). Greater the investment in current assets, the lower the risk, but also the lower the profitability obtained. In contradiction, Carpenter \& Johnson (1983) provided empirical evidence that there is no linear relationship between the level of current assets and revenue systematic risk of US firms; however, some indications of a possible non-linear relationship were found which were not highly statistically significant. For the first time, Soenen (1993) investigated the relationship between the net trade cycle as a measure of working capital and return on investment in U.S firm. The results of chi-square test indicated a negative relationship between the length of net trade cycle and return on assets. Furthermore, this inverse relationship between net trade cycle and return on assets was found different across industries depending on the type of industry. A significance relationship for about half of industries studied indicated that results might vary from industry to industry. Another aspect of working capital management has been analyzed by Lamberson (2005) who studied how small firms respond to changes in economic activities by changing their working capital positions and level of current assets and liabilities. Current ratio, current assets to total assets ratio and inventory to total assets and liabilities. Current ratio, current assets to total assets ratio were used as measure of working capital while index of annual average coincident economic indicator was used as a measure of economic activity. Contrary to the expectations, the study found that there is very small relationship between charges in economic conditions and changes in working capital. In order to validate the result found by Soenen (1993) on large sample and with longer time period, Jose et al. (1996) examined the relationship between aggressive working capital management and profitability of US firms using Cash Conversion Cycle (CCC) as a measure of working capital management where a shorter CCC represents the aggressiveness of working capital management. The results indicated a significant negative relationship between the cash conversion cycle and profitability indicating that more aggressive working capital management is associated with higher profitability. The current study further investigates the impact of the degree of aggressiveness of working capital policies on market measure of profitability.

## RESEARCH DESIGN

The study used aggressive investment policy and aggressive investment policy as measuring variable of working capital management. Aggressive Investment Policy (AIP) results in minimal level of investment in current assets fixed assets. In contrast, a conservative investment policy places a greater proportion of capital in liquid assets with the opportunity cost of lesser profitability. In order to measure the degree of aggressiveness, following ratio will be used:
AIP = Total Current Assets / Total Assets
Where a lower ratio means a relatively aggressive policy.
Aggressive Financing Policy (AFP) utilizes higher levels of current liabilities and less long-term debt. In contrast, a conservative financing policy uses more long-term debt and capital. The degree of aggressiveness of a financing policy adopted by a firm will be measured by:

## AFP = Total Current Liabilities / Total Assets

Where a higher ratio means a relatively aggressive policy.
The impact of working capital policies on the profitability will be analyzed through frequently used profitability measures i.e. Return on Assets (ROA) and Return on Equity (ROA) as well as market measure and Tobin's q by running cross-sectional regressions. The regression models to be estimated are:


The impact of the working capital assets management and financing policies on the relative risk will be measured by applying regression models for the risk of the company and its working capital management policies over the period of 2002-2009. The regression equations are:

| SD salesi | $=\alpha+\beta 1$ (TCA/TA $i)+\beta 2$ (TCL/TA $i)+\varepsilon$.................. (4) |
| :---: | :---: |
| SD ROAi |  |
| SD ROEi |  |
| SDqi | $=\alpha+\beta 1(\mathrm{TCA} / \mathrm{TA} i)+\beta 2(\mathrm{TCL} / \mathrm{TA} i)+\varepsilon \ldots . . . . . . . . . . . . . . . ~(7) ~$ |
| Where: |  |
|  | $=$ Standard Deviation representing risk of Firm $\underline{i}$ |

The study analyzes the working capital management practices and impact on profitability and risk of Indian Firms for the period of 2002 to2009. The total population of the study is the all non-financial firms listed in Bombay Stock Exchange. As first step, 28 non-financial firms were selected whose financial data was available for the study period i.e. 2002-2009. The required financial data of these firms was obtained from the companies' annual reports and publications whereas the market prices data has been collected from the daily quotations of Bombay Stock Exchange (BSE).

## STATISTICAL ANALYSIS

Equation (1) has been estimated for 28 non-financial firms for the period 2002-2009 and results are reported in Table 1. For each year, TCA/TA and TCL/TA ratios have been regressed against ROA values, and we have eight regression models indicating the impact of working capital policies on the profitability of firms in India. The model F-values and, we have eight regression models indicating the impact of working capital
policies on the profitability of firms in India. The model F-values and the Durbin-Watson statistics indicate overall best fit of the model. The tstatistics of both TCA/TA and TCL/TA are statistically significant at $1 \%$ level for ROA for all the years except for the year 2002 and 2009. The positive coefficient of TCA/TA shows a negative relationship between the degree of aggressiveness decreases, and return on assets goes up. Therefore, there is negative relationship between the relative degree of aggressiveness of working capital investment policies and return on assets. The negative value of $\beta$ coefficient for TCL/TA also points out the same negative relationship between the aggressiveness of working capital financial policy and return on assets. Higher the TCL/TA ratio, more aggressive the financing policy, the yields negative return on assets.

TABLE 1: REGRESSION ANALYSIS OF WORKING CAPITAL POLICIES AND RETURN ON ASSETS (ROA)

| Year | Investment Policy |  | Financing Policy |  | F-Value | Durbin- Watson |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\boldsymbol{\beta}$ coefficient | t-value | $\boldsymbol{\beta}$ coefficient | t-value |  |  |
| 2002 | 0.14 | 1.766* | -0.208 | -2.633*** | 3.608** | 1.893 |
| 2003 | 0.427 | 5.859*** | -0.451 | -6.199*** | 24.202*** | 2.018 |
| 2004 | 0.424 | 5.643*** | -0.38 | -5.057*** | 18.989*** | 1.716 |
| 2005 | 0.398 | 5.579*** | -0.303 | -4.254*** | 17.719*** | 2.040 |
| 2006 | 0.324 | 4.623*** | -0.412 | -5.876*** | 20.156*** | 2.178 |
| 2007 | 0.441 | 6.885*** | -0.405 | -6.323*** | 33.2*** | 2.104 |
| 2008 | 0.189 | 2.351** | -0.294 | -6.665*** | 6.819*** | 1.966 |
| 2009 | 0.585 | 8.694*** | -0.582 | -8.653*** | 49.409*** | 2.039 |

The results of regression model (2) have been reported in Table 2, where the dependant variable is return on equity having the same independent variable of working capital investment policy and working capital financing policy. As the degree of aggressiveness of working capital policies tends to increase, the returns are likely to decrease. Though, the results are statistically less impressive which is apparent from the low level of significance of $\boldsymbol{\beta}$ coefficients and t-values, however, we can predict a negative relationship between the degree of aggressiveness of working capital policies and accounting measures of returns.
TABLE2: REGRESSION ANALYSIS OF WORKING CAPITAL POLICIES AND RETURN ON EQUITY (ROE)

| Year | Investment Policy |  | Financing Policy |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | $\boldsymbol{\beta}$ coefficient | t-value | $\boldsymbol{\beta}$ <br> Coefficient | t-value | F-Value |  |
| 2002 | -0.069 | -0.857 | 0.018 | 0.221 | 0.395 | 2.028 |
| 2003 | 0.345 | $4.55^{* * *}$ | -0352 | $-4.638^{* * *}$ | $14.023^{* * *}$ | 1.983 |
| 2004 | 0.279 | $3.506^{* * *}$ | -0.161 | $-2.028^{* *}$ | $6.173^{* * *}$ | 1.535 |
| 2005 | 0.072 | 0.946 | -0.152 | $2.009^{* *}$ | $4.000^{* *}$ | 2.044 |
| 2006 | 0.183 | $2.424^{* *}$ | -0.051 | -0.68 | $3.002^{*}$ | 1.977 |
| 2007 | 0.321 | $4.619^{* * *}$ | -0.224 | $-3.216^{* * *}$ | $12.365^{* * *}$ | 2.021 |
| 2008 | 0.038 | 0.457 | -0.107 | -1.292 | 0.875 | 1.969 |
| 2009 | 0.135 | $1.694^{*}$ | -0.259 | $-3.248^{* * *}$ | $5.273^{* * *}$ | 1.995 |

To further validate the above-mentioned results, the impact of working capital investment and working capital financing policy has also been examined on the market returns. Tobin's $q$ has been used as a measure of market returns and, for each year from 2002 to 2009 . A q value of greater than 1 indicated the greater perceived value given by investor to the firm. The results of equation (3) have been presented in Table 3. The results reported in first panel of Table 3 are in accordance with results of Table 1 and Table 2 highlighting that the market returns on Tobin's $q$ are decreasing as the firms are following the aggressive investment policy by keeping low level of current assets in the firm. This similarity in market and accounting returns confirms the notion that investors do not believe in the aggressive approach of working capital management, hence, they don't give any additional value to the firms in Bombay Stock Exchange. However, there are some dissimilarities are found in the relationship of financing policy and Tobin's q. In the year 2002 to 2006, the relationship between working capital financing policy and Tobin's $q$ is positive, indicating that higher the degree of aggressiveness of working capital financing policy, the greater the investor's value given to the firm.

TABLE 3: REGRESSION ANALYSIS OF WORKING CAPITAL POLICIES AND TOBIN'S Q

| Year | Investment Policy |  | Financing Policy |  | F-Value | Durbin-Watson |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- |
|  | $\boldsymbol{\beta}$ coefficient | t-value | $\boldsymbol{\beta}$ <br> Coefficient | t-value |  |  |
| 2002 | 0.129 | $1.664^{*}$ | 0.19 | $2.456^{* *}$ | $8.515^{* * *}$ | 1.913 |
| 2003 | 0.072 | 0.913 | 0.151 | $1.909^{* *}$ | $4.190^{*}$ | 1.848 |
| 2004 | 0.075 | 0.935 | 0.123 | 1.526 | $3.223^{* *}$ | 1.953 |
| 2005 | 0.097 | 1.298 | 0.205 | $2.754^{* * *}$ | $7.517^{* * *}$ | 1.862 |
| 2006 | 0.106 | 1.421 | 0.153 | $2.031^{* *}$ | $5.153^{* * *}$ | 1.989 |
| 2007 | 0.191 | $2.646^{* * *}$ | -0.111 | -0.111 | $3.799^{* *}$ | 2.016 |
| 2008 | 0.19 | $2.325^{* *}$ | -1.558 | -1.558 | $2.769^{*}$ | 2.022 |
| 2009 | 0.22 | $2.732^{* * *}$ | $-1.836^{*}$ | $-1.836^{*}$ | $3.846^{* *}$ | 2.053 |

Finally, to empirically test the theory of Van-Horne and Wachowicz (2004), impact of working capital policies on risk of the firm shave been investigated by regressing the ordinary least square regressions for equations 4-7. The risk is measured by the standard deviation of sales and different return measures as operating and financial risk respectively. The standard deviation has been estimated over the eight years from 2002 to 2009 and then four regressions have been run for working capital investment and working capital financing policy and result are
reported in Table 4. The positive $\beta$ coefficients of SDsales, SDROA and SD Tobin's $q$ indicate negative relationship between the risk measurements and the working capital investment policy. On the other hand, similar relationship has been found for the working capital financing policy. The increased variation in sale sales profitability is attributed to increasing the level of current assets and decreasing the level of current liabilities in the firm. However, these are not statistically significant except the Tobin's $q$. In general, there is no statistically significant relationship between the level of current assets and current liabilities and operating and financial risk of Indian firms.

TABLE 4: REGRESSION ANALYSIS OF WORKING CAPITAL POLICIES AND RISK

| Year | Investment Policy |  | Financing Policy |  | F-Value | Durbin-Watson |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\beta$ coefficient | t-value | $\beta$ Coefficient | t-value |  |  |
| $\sigma$ Sales | 0.076 | 0.951 | 0.108 | 1.358 | 2.716* | 1.624 |
| $\sigma$ ROA | 0.129 | 1.608 | -0.122 | -1.522 | 1.633 | 2.094 |
| $\sigma$ ROE | -0.041 | -0.505 | 0.066 | 0.818 | 0.34 | 2.031 |
| $\sigma$ Tobin's Q | 0.159 | 1.99** | -0.067 | -0.839 | 1.998 | 2.012 |

Although, results of all return variables are significant, however, model (1) produced more broader and consistent results as compared to model (2) and (3) where F-value and $\beta$ coefficients are highly significant. Market returns (Tobin's $q$ ) are slightly less significant in our study which is attributed to the more volatile stock market of India. The Bombay Stock Market is said to be heavily overvalued stock market, and hence, the results based on market share price data are more inconsistent.

## CONCLUSION

The study investigated the relative relationship between the aggressive/conservative working capital policies for 28 public limited companies listed at Bombay Stock Exchange for a period of 2002-2009. The impact of aggressive/conservative working capital investment and financing policies has been examined through cross-sectional regression models between working capital policies and profitability as well as risk of the firms. We found a negative relationship between the profitability measure of firms and degree of aggressiveness of working capital investment and financing policies. The firms yield negative returns if they follow an aggressive working capital policy. These results are further validated by examining the impact of aggressive working capital policies on market measure of profitability which was knot tested before. The results of Tobin's $q$ were in line of the accounting measures of profitability and produced almost the same results. Moreover, we also confirmed the findings of Carpenter and Johnson (1983) that there is no significant relationship between the aggressiveness/conservativeness of working policies of firms and their operating and financing risk. As we used a new measure of profitability i.e. Tobin's $q$ to estimate the relationship of working capital management and firms returns in India, the present study is expected to be a significant contribution in finance literature. Moreover, theoretical discussion on risk and working capital management has also been tested on empirical basis in an emerging market of India. Although the results of present study are in contradiction to some earlier studies on the issue, yet, this phenomenon may be attributed to the inconsistent and volatile economic conditions of India. The reasons for this contradiction may further be explored in upcoming researches and this topic is left for future.

## REFERENCES

1) Afza T and MS Nazir (2007). Working Capital Management Policies of Firms: Empirical Evidence from Pakistan. Presented at $9^{\text {th }}$ South Asian Management Forum (SAME) on February 24-24, North South University, Dhaka, Bangladesh.
${ }^{2)}$ Brigham EF and MC Ehrhardt (2004). Financial Management: Theory and Practice ( $11^{\text {th }}$ Edition). New York: South-Western College Publishers.
${ }^{3)}$ Carpenter MD and KH Johnson (1983). The Association between Working Capital Policy and Operating Risk. The Financial Review 18(3): 106-106.
2) Deloof M (2003). Does Working Capital Management Affect Profitability of Belgian Firms? Journal of Business, Financial and Accounting 30(3\&4): 573-587.
${ }^{5)}$ Eljelly AMA (2004). Liquidity-Profitability Tradeoff: An Empirical Investigation in a Emerging Market. International Journal of Commerce and Management 14(2):48-61.
${ }^{6)} \quad$ Filbeck G and T Krueger (2005). Industry Related Differences in Working Capital Management. Mid-American Journal of Business20 (2): 1118.
3) Gardner MJ, DL Mills, and RA Pope (1986). Working Capital Policy and Operating Risk: An Empirical Analysis. The Financial Review 21 (3): 31-31.
4) Ghosh SK and SG Maji (2004). Working Capital Management Efficiency: A Study on the Indian Cement Industry. The Management Accountant 39(5): 363-372.
5) Gomnola MJ and JE Ketz (1983). Financial Ratio Patterns inertial and Manufacturing Organizations. Financial Management 12(2): 45-56.
6) Gupta MC and RJ Huefner (1972). A Cluster Analysis Study of Financial Ratios and Industry Characteristics. Journal of Accounting Research 10(1): 77-95.
7) Hall C (2002). "Total Working Capital Management". AFP Exchange22 (6):26-32.
8) Harris A (2005). Working Capital Management: Difficult, but Rewarding. FinancialExecutive 21 (4): 52-53

# DEPOSIT MOBILIZATION IN ICICI AND SBI BANKS IN INDIA 

ESHA SHARMA<br>FACULTY (FINANCE \& MARKETING) HARYANA COLLEGE OF TECHNOLOGY \& MANAGEMENT KAITHAL - 136027


#### Abstract

The liberalized policy of the government of India permitted entry to the ICICI in banking; the industry has witnessed a generation of private players. The focus of these banks has always been centered on the customer -- understanding his needs, preempting him and consequently delighting him with various configurations of benefits and a wide portfolio of products \& services. With efficiency being the major focus, these banks have leveraged on their strengths and competencies viz. Management, Operational Efficiency and Flexibility, Superior Product positioning and higher employee productivity skills. With their focused business and service portfolio, these banks have a reputation of being players in the industry. This paper is focused on defining the difference between the deposit mobilizations in both the banks by using different parameters.


## KEYWORDS

Deposit Mobilization, Research design, 7P's of marketing, Performance parameters and scaling.

## INTRODUCTION

## DEPOSIT MOBILIZATION

把anking has traditionally remained a protected industry in many emerging economies. However, a combination of developments has compelled banks to change the old ways of doing business. These include, among others, technological advancements, disintermediation pressures arising from a liberalized marketplace, increased emphasis on shareholder's value and macroeconomic pressures and banking crisis in 1990's. As a consequence of these developments, the dividing line between financial products, types of financial institutions and their geographical locations have become less relevant than in the past.

## FACTORS INFLUENCING SAVINGS BEHAVIOR

Depositing money in a savings account with a financial institution is not the only form of savings. The savings mode that people opt for and the savings pattern they display are influenced by a number of factors, which include:

- Income Generation
- Macroeconomic Environment
- Interest Rate
- Confidence in Financial Institution
- Accessibility
- Range of Services

When the transaction costs are too high, including the costs incurred by getting to and waiting at the bank, small depositors become discouraged. Experience shows that needs of savers focus on saving instruments that offer security, conveniences, ease of deposit, ready access to money and overall positive real return. Such saving opportunities and incentives would increase the willingness of savers to use financial institutions, which would thus be both to the advantage of savers as well as the institutions.

## BANKING INDUSTRY IN INDIA

Liberalization and de-regulation process initiated by the Indian Government in early nineties has completely changed the face of the Indian banking industry. The entry of new private sector banks with the state-of-the-art technology and lean structures has forced the old privatesector and public-sector banks to respond to the new challenges with aggressive restructuring measures. The past five years have seen the public sector banks rapidly introducing new products and services, computerizing and networking key branches, rationalizing manpower and launch a number of initiatives to improve operating efficiencies.
While all the above measures are no doubt necessary to survive, these strategies to become leaner and meaner are not sufficient to gain a competitive advantage to survive and grow in the long run. To survive and thrive in the long run, banks need to pursue strategies that enable them to develop resources that are inimitable, rare, durable and superior to competitors.
Private \& Foreign banks are on their way to raise the performance bar, with new buzzwords making seamless connectivity for retail consumers, cross selling and selling using CRM technologies, evaluating the lifetime value of customers and so on.

## NATURE OF STUDY

The proposed titled study focuses on deposit mobilization in ICICI (private bank) and SBI (public bank) in India.

## OBJECTIVES OF THE STUDY

* To study the concept of Deposit Mobilization
* To Study and Compare the Customer Perception of the Strategies for Deposit Mobilization Adopted by Public and Private Sector Banks.
* To study the factors which influence the savings behavior.
* To analyze the parameters for performance of the banks.
* To understand the 7P's of marketing which affects buyer behavior.

[^2]
## RESEARCH DESIGN

Exploratory and Descriptive research design has been used to describe the present study.

## SAMPLE AND SAMPLING TECHNIQUE

The sample size is 100 Bank Account Holders and the sampling technique used in this study is Judgment (non probability) sampling method.

## DATA COLLECTION

The data can be collected through primary as well as secondary sources.
DATA ANALYSIS AND FINDINGS
COMPARATIVE RATING OF PARAMETERS FOR SBI VS. ICICI BANKS


A comparison has been drawn between the SBI and ICICI Banks, based on the 7 P's of Service Marketing. They are as follows:

* Product : Type of Schemes
* Price : Interest rate and others charges
* Place : Branch Accessibility and Location
* Promotion : Promotion and Marketing Efforts
* People : Level of Customer Service (Friendliness \& Assistance)
* Physical Evidence : Interior and Equipments in the Bank
* Process : Simplicity \& Timeliness of Service Processes

The study has given us results, wherein customers ranked both SBI and ICICI Banks based on their perception of the two. The rating is on a scale of 1-5 with 1 being lowest $n 5$ being the highest rating.
The ratings for the parameters are as follows:

## TYPE OF SCHEMES (PRODUCT)

Rating of SBI: 3.33
Rating of ICICI: 3.92
INTEREST RATES (PRICE)

Rating of SBI: 3.86
Rating of ICICI: 3.35
As far as the interest rates are concerned, SBI are definitely ahead on this parameter but the gap is not very huge with they providing about 11.25 \% higher interest rate than the private players this could be one reason why people go for SBI Accounts.

But what needs to be noticed is, that the gap between the two players not being too high, customers often foregoes this advantage and select private banks over public despite the high interest rates. This decision could be based on the other advantages that ICICI are offering.

## BRANCH ACCESSIBILITY / LOCATION (PLACE)

Rating of SBI: 4.10
Rating of ICICI: 3.15
On the accessibility parameter, there is no competition for Public players. SBI have wide spread branches, which are not restricted to the cities and major towns only, but provide the accessibility options in mid - size and small towns as well. The best example in this case would be SBI, which has the maximum no. of ATMs 5600 in no. and plan to add 1000 more a year and the maximum Branches in India. Public Sector Banks have a wide spread in the rural network too, egg: about $20 \%$ of the SBI's ATM's are located in rural India with the massive jump in No. of transactions from 50 lakhs in March, 2004 to 3 crore transactions in October, 2005 . ICICI are still restricted to the metropolitans and major cities, missing out on the small towns \& cities and with totally no reach in the rural sector. Accessibility is a very important criterion for the customer, as today everyone looks out for Anywhere Banking. The reach and location is a parameter which has a major hand in people opting for SBI.

## PROMOTION \& MARKETING EFFORTS (PROMOTION)

Rating of SBI: 2.56
Rating of ICICI: 4.05
On the Promotion and Marketing parameter, Private Banks have no competition, they are into all sorts of marketing efforts be it TV, Print or Radio advertising or the other promotional methods like billboards, canopies etc. ICICI is a private bank to reckon with in this regard, with all the respondents aware of their Hum Hain Na campaign.
Public players are not much into advertising and promotional schemes. Print ads and canopies are the medium which they have the maximum focus on, except SBI which has now changed its ways and gone for massive teaser advertising and billboards highlighting existing but unknown facts about the Bank. But Promotions and Marketing is a criteria which people have not rated very high in their decision making process, though it helps in spreading awareness and name recall.

## LEVEL OF CUSTOMER SERVICE (PEOPLE)

Rating of SBI: 2.65
Rating of ICICI: 4.03
The level of customer service and the assistance and the behavior norm of the employees is a major feel good factor when it comes to banking service. People do not wish to be ill treated or mishandled when visiting a Bank, especially when a normal customer does not understand the basics of Banking. In such a scenario, ICICI have an excellent rating with the staff being rated as very friendly, cooperative and keen to provide assistance.
As far as the SBI are concerned, Customer Service does not find a good score. The staff has often been stated as irritated and unwilling to provide assistance of any kind. It is said a customer thinks twice before making a query in a Public sector Bank, due to the fear of no or rude response. The reason can be attributed to the heavy footfalls, lack of amenities or poor equipments in the Branch.

## EQUIPMENTS USED \& INTERIORS (PHYSICAL EVIDENCE)

Rating of SBI: 2.48
Rating of ICICI: 4.29
The physical evidence in a Bank would include the machinery used for operations like the computers, printers, scanners as well as the interiors like the $\mathrm{A} / \mathrm{C}^{\prime}$ s, sitting area, posters and boards highlighting the various schemes, color and décor of the branch etc.
Private Sector Banks yet again score excellently over the Public players on this parameter. With professionally decorated branches , comfortable seating plans for customers, large space, colours and décor to match the bank 's code , air conditioned branches with proper signage's and a relaxed atmosphere, private players provide a banking experience to the customers. Their physical evidence have a feel good factor attached to them .Public sector Banks rate very poorly on this front, with poor interiors and machinery which are often damaged. Their interiors are dull and unattractive with more of papers around. As far as Interiors \& equipments are concerned public players do not score very high.

TIMELINESS \& SIMPLICITY OF THE PROCESS (PROCESS)
Rating of SBI: 2.55
Rating of ICICI: 3.86

COMPARATIVE PERFORMANCE SCALING OF SBI VS. ICICI


SBI


ICICI

## FINDINGS AND SUGGESTIONS

(i) The most important factor which affects an individual's choice of Bank is the Interest Rates \& other charges in a Ban5k (Pricing), with the highest rating of 7 amongst the 7Ps in the marketing of services. Returns on the saving / investment are a factor of prime importance in today's world. As far as the interest rates are concerned, Public Sector Banks are definitely ahead on this parameter but the gap is not very huge with they providing about 1-1.25 \% higher interest rate than the private players. This could be one reason why people primarily go for Public Bank Accounts. But the customers often forego this advantage and select private banks over public despite the high interest rates. This decision could be based on the other advantages that private Sector Banks are offering
(ii) Another feature which the customers look out for in their Banks is the Timeliness \& Simplicity of processes involved (Process). With a rating of 5 , we find that in today's world of technology and time lack, everyone wishes to have their job done as swiftly as possible. On the simplicity and timeliness parameter the Private Banks score a higher rating. This can be attributed to the presence of state of the art technology comprising of use of software's and systems which reduce delays and paperwork. There exists a single counter solution for most of the tasks in a private bank, which in contrast is not found at public sector banks.
(iii) Quality of Service which would include the simplicity \& timeliness of service was a factor which maximum ( $71 \%$ of the 100 respondents) agreed was a major difference between the SBI \& ICICI, with the Private Players performing way ahead on this factor.
(iv) In the coming time, maximum of the customers (70 \%) according to the study expect Better Customer Service from their Banks, on which Public Sector Banks rate low, and thus in order to expand their deposit base these banks will need to improve on their customer service.
Another major benefit expected by the customers ( $51 \%$ ) is of better accessibility facilities like Phone Banking, Net Banking being provided by their Banks.
(v) The Bank Promotional activities are high on recall but not effective enough to influence the decision making of the customer, with an overall conversion rate of only $18 \%$ as per the study. This is very low conversion rate and what needs to be highlighted here is that the maximum recall was for the TV ads which as per our study do not have much influence on the customer. Thus, either the medium or the content in the advertising / promotional activities needs to be checked upon.
Thus, banks should adopt more detailed and useful advertising and promotional tools like newspapers, magazines, canopies, and trade shows etc .which clearly reflect and help transfer the advantages to the customers.

## CONCLUSION

The liberalized policy of the government of India permitted entry to the ICICI in banking; the industry has witnessed a generation of private players. The focus of these banks has always been centered on the customer -- understanding his needs, preempting him and consequently delighting him with various configurations of benefits and a wide portfolio of products \& services. With efficiency being the major focus, these banks have leveraged on their strengths and competencies viz. Management, Operational Efficiency and Flexibility, Superior Product positioning and higher employee productivity skills. With their focused business and service portfolio, these banks have a reputation of being players in the industry.

## BIBLIOGRAPHY

- Dr. Das Ranjan .( 2004) , "Choosing Strategies that Matter Lessons for Indian Public Sector Banks" , Strategic Management ( March - April)
- Jyoti S, Kulkarni R, Pandey M (2005), "PSB vs. private banks: the technology divide", Financial Express (September 12)
- Nationalization", PIB Press Releases (Features, July 31 ${ }^{\text {st }}$ )
- Seth. K. Rajeev, 'Marketing of banking Services', McMillan
- Sobti Renu, "Banking \& Financial Services in India: Marketing Redefined"
- Desai Vasant, 'Banking \& Financial System', Himalya Publication


## REQUEST FOR FEEDBACK

## Esteemed \& Most Respected Reader,

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

I would like to take this opportunity to request to your good self to supply your critical comments \& suggestions about the material published in this issue as well as on the journal as a whole, on our E-mails i.e. info@ijrcm.org.in or infoijrcm@gmail.com for further improvements in the interest of research.

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

Hoping an appropriate consideration.

With sincere regards

Thanking you profoundly

## Academically yours

Sd/-

## Co-ordinator


[^0]:    A Monthly Double-Blind Peer Reviewed Refereed Open Access International e-Journal - Included in the International Serial Directories Ground Floor, Building No. 1041-C-1, Devi Bhawan Bazar, JAGADHRI - 135 003, Yamuna Nagar, Haryana, INDIA

[^1]:    ${ }^{1}$ Weick,Karl,1993, The Collapse of Sense Making in Organization, Administrative Science Quarterly, Vol.38,\#4,(Dec) 628-652

[^2]:    * To conclude by suggesting the right mix of promotional strategies for the Public and Private Sector banks for Deposit Mobilization in India.

