



**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****DR. SAMBHAV GARG**

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

**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. PARVEEN KUMAR**

Director, M.C.A., Meerut Institute of Engineering & Technology, Meerut, U. P.

**PROF. H. R. SHARMA**

Director, Chhatrapati Shivaji Institute of Technology, Durg, C.G.

**PROF. S. L. MAHANDRU**

Principal (Retd.), Maharaja Agrasen College, Jagadhri

**PROF. MANOHAR LAL**

Director & Chairman, School of Information & Computer Sciences, I.G.N.O.U., New Delhi

**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 ADVISORY BOARD****DR. AMBIKA ZUTSHI**

Faculty, School of Management & Marketing, Deakin University, Australia

**DR. VIVEK NATRAJAN**

Faculty, Lomar University, U.S.A.

**PROF. SIKANDER KUMAR**

Chairman, Department of Economics, Himachal Pradesh University, Shimla, Himachal Pradesh

**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. RAJENDER GUPTA**

Convener, Board of Studies in Economics, University of Jammu, Jammu

**PROF. ROSHAN LAL**

Head & Convener Ph. D. Programme, M. M. Institute of Management, M. M. University, Mullana

**PROF. ANIL K. SAINI**

Chairperson (CRC), Guru Gobind Singh I. P. University, Delhi

**PROF. S. P. TIWARI**

Department of Economics & Rural Development, Dr. Ram Manohar Lohia Avadh University, Faizabad

**DR. ASHOK KHURANA**

Associate Professor, G. N. Khalsa College, Yamunanagar

**DR. TEJINDER SHARMA**

Reader, Kurukshetra University, Kurukshetra

**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. SHIVAKUMAR DEENE**

Asst. Professor, Government F. G. College Chitguppa, Bidar, Karnataka

**ASSOCIATE 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 &amp; Technology, Amity University, Noida

**DR. PARDEEP AHLAWAT**

Reader, Institute of Management Studies &amp; Research, Maharshi Dayanand University, Rohtak

**PARVEEN KHURANA**

Associate Professor, Mukand Lal National College, Yamuna Nagar

**SHASHI KHURANA**

Associate Professor, S. M. S. Khalsa Lubana Girls College, Barara, Ambala

**SUNIL KUMAR KARWASRA**

Vice-Principal, Defence College of Education, Tohana, Fatehabad

**BHAVET**

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

**TECHNICAL ADVISORS****DR. ASHWANI KUSH**

Head, Computer Science, University College, Kurukshetra University, Kurukshetra

**DR. BHARAT BHUSHAN**

Head, Department of Computer Science &amp; Applications, Guru Nanak Khalsa College, Yamunanagar

**DR. VIJAYPAL SINGH DHAKA**

Head, Department of Computer Applications, Institute of Management Studies, Noida, U.P.

**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 &amp; Technology, Ambala City

**MOHITA**

Lecturer, Yamuna Institute of Engineering &amp; Technology, Village Gadholi, P. O. Gadholi, Yamunanagar

**AMITA**

Lecturer, E.C.C., Safidon, Jind

**MONIKA KHURANA**

Associate Professor, Hindu Girls College, Jagadhri

**ASHISH CHOPRA**

Sr. Lecturer, Doon Valley Institute of Engineering &amp; Technology, Karnal

**SAKET BHARDWAJ**

Lecturer, Haryana Engineering College, Jagadhri

**NARENDERA SINGH KAMRA**

Faculty, J.N.V., Pabra, Hisar

**FINANCIAL ADVISORS****DICKIN GOYAL**

Advocate &amp; Tax Adviser, Panchkula

**NEENA**

Investment Consultant, Chambaghat, Solan, Himachal Pradesh

**LEGAL ADVISORS****JITENDER S. CHAHAL**

Advocate, Punjab &amp; Haryana High Court, Chandigarh U.T.

**CHANDER BHUSHAN SHARMA**

Advocate &amp; 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:**

Dated: \_\_\_\_\_

The Editor  
IJRCM

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

Dear Sir/Madam,

Please find my submission of manuscript titled ' \_\_\_\_\_ ' 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" 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>

## PRICING STRATEGY IN MARKETING OF B-SCHOOLS: A STUDY OF THE INDIAN CONTEXT

DR. RAJESH S. MODI

ASST. PROFESSOR

YANBU INDUSTRIAL COLLEGE, INDUSTRIAL MANAGEMENT TECHNOLOGY DEPARTMENT

P.O. BOX 30436, YANBU-AL-SINIYAH

KINGDOM OF SAUDI ARABIA

### ABSTRACT

The purpose of the present paper is to understand the various aspects of pricing strategy— intake capacity, scholarship, fundraising activities and generating other sources of income for marketing of B-Schools. The pricing strategy of the institute / B-Schools should be designed in such a way that the income of institute increases without compromising scholarship to the talented or meritorious students, attractive pay package to faculty members, upgrading and expanding the infrastructure facility for the benefit of the students etc. The finding is based on large, representative samples of 150 B-Schools as a primary source and with the real life examples of different aspects of pricing strategy of Indian B-Schools from various secondary sources. Survey results shows that the number of applications received for admission purpose are ranging from 500-200000. However, because of demand and supply gap, even “C” category of intuitions get, on an average 500 applications. Whereas the institutions like IIMs, MDI, FMS, IIFT etc get more than 2,00,000 applications for admission. The chi square test (Test of Association) reveals that there is a significant relation between Number of Applications received and Category (A, B, C) of the institute. This research study include mainly two types of management institute i.e. private and grant-in-aid (government) and focus on the ranking like A, B and C. The study does not include the other the various categories of B-Schools like autonomous institute which are not approved by the AICTE, distance education, and various sub categories like A+, A, A-, ,B+,B-,C+,C,- etc.

### KEYWORDS

AICTE, AICWA, AICA, MDP, ROI, UGC.

### INTRODUCTION

Pricing decisions for the service offer are of a major importance and should ideally relate to achievement for marketing and organizational goals. Price includes: Fees, Scholarship, Payment terms, Loan facility, Consumers perceived Value etc. Pricing decision is vital as it is directly related to the objectives of organizations. Such as achieving a certain Return on Investment (ROI) or increasing the revenues by a certain percentage. No organization can survive without profits in the long run, except the government funded or charitable institutions. So implicitly, price assumes the center stage for any organization. For an education service, the price paid by the customer is known as the fee, and it is subject to many constraints mainly in developing countries.

Most educational institution, in fact all public institutions like the Universities, Institutes of Technology, Medical and Engineering colleges come under the category of services where price are subject to public regulation. In all such cases the price element is not controllable by the marketers, instead it becomes a subject matter of public policy, where political, environmental and social considerations take priority over purely economic considerations. Autonomous institutions also subject themselves to formal self regulation of price for example, the institution like **The Institute of Works and Cost Accountants of India (AICWA)** and **Institute of Chartered Accountants of India (AICA)** are subject to institutional regulations relating to fee structure which they decide for themselves. On the other hand private institutions, typically in specialized field like medicine, engineering, computers and management tend to price their services on what the market could bear. As most of these institutions operate in subject fields where demand far exceed supply, price charged depend upon economic condition, consumer feeling about prices, buyer need urgency, competition in market place, level of demand etc. The pricing strategy becomes more important today because government is slowly and gradually withdrawing financial support to educational institutes and encouraging them to be self sufficient and on the other hand there is a growing competition amongst the self-financed B-Schools.

### INTAKE CAPACITY AND ADMISSION

A bulk of the Indian schools admits 60 to 90 students while the more adventurous among them could go up to 200 or more. Almost 40 percent of the schools admitted between 60 and 120 students. The batch size is important to get the benefit of economies of scale. The smaller schools charge anything between Rs.50,000 to Rs.1 lakh per year and as you go up to the value chain A and A+ category of B-Schools, the fee charged averaged around Rs.2 to Rs.2.5 lakh per year and in some cases could go up further, right up to Rs14-16 lakh charged by the Indian School of Business.

What could be the payback period of the B-Schools? Once again smaller schools are at an advantage as they do not spent too much investment in their premises- most are located in rented places. Almost the entire “A+”category schools have large owned campuses with a range of 2 to 25 acres and **fixed investment of between Rs.20 crore to Rs 60 Crore**. The payback is also long despite the fact the **Return on Investment (ROI)** is almost **40 percent**. The reason is low annual turnover owing to the fact that the schools, particularly the smaller ones depend entirely on the fee income.

Following table gives the breakup of Revenue and Expenditure

Gross Revenue Rs.29,736 Lakh	
MDP Research	10%
Fees Income	60%

Others	30%
<b>Gross Expenditure Rs.8,619 Lakh</b>	
Library	15.5%
Faculty Development	18%
I.T. Investment	22.5%
Others	44%

Source: A Thothathri, Raman Business India, "The Way to go" October 24, November 6, 2005 pp-82

**Strong** industry interface helps in an institute to reduce its dependence on fees. Many B-Schools earn sizable revenues from training programmes for corporate executives. For example M.D.I earned over Rs. 7 crore from the **Management Development Programme (M.D.P)**. Such revenue model provides a solution to B-School's resource constraints. – a limiting factor that hampers investment in infrastructure and intellectual capital.

Heterogeneity of services and different pricing considerations used by different types of institutions make price important determinant of consumer choice in educational services.

The more the services are homogenous (undergraduate, graduate courses in the basic disciplines) the more competitive would tend to be the pricing. Another generalization that to be drawn from product marketing is that the more unique the education service offer, the greater would be the ability of the providers to vary prices according to the buying capacity of the consumer population. For example **The PGPX** programme run by **IIM-A**, which emphasis on "managing across the borders and culture", in which there is a five-week international project. All of this at a cost of **Rs.8,00,000** Executive programme also make a good business sense for institute. For **example At IIFT, the one-and-a-half years Executive Masters in International Business** cost Rs. 1,00,000 for a day programme. It is more like a weekend course with about 90 days of classroom teaching. The same also spread over three years on a part time basis. **I.M.T Ghaziabad** offers 15 months, full time residential post graduate diploma in executive management at a cost of **Rs. 4 lakh**. As part of the programme students do a two week stint in some European countries. The above information makes a strong business calculation. When an institute offers a three year, part time executive management programme which consist of **30** contact hours each, what does really boil down to? **Forty-five days (take a 24 hours circle) of teaching out of total 1,095 days (three years) of the course duration. The cost is Rs.2.25 lakh.**

**PRICING STRATEGY**

Price in management education includes fees charged by the institute from the students and intake capacity (batch size). In India there are different types of fees charged by the management institutes which are depending upon the type of management institutes (self financed / grant-in-aid) and government regulations like (SC/ST quota, management quota, NRI quota). There are other issues like offering scholarship to meritorious students, bank loan facility, fund raising, etc which are need to be considered while designing the pricing strategy of the B-Schools. A survey was conducted of 150 B-Schools of A category, B Category and C Category of self-financed and grant-in aid B-Schools across the nations with respect to Price (fees) charged by them, Intake capacity etc. The following results had been obtained.

**PRICE - 'FEE STRUCTURE'**

The response received from various management institutes in respect of the component fee structure has been reported in Table-1 given below:

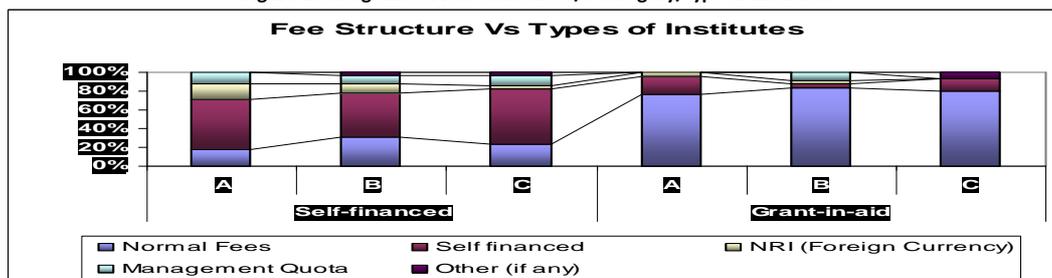
**Table -1: Categories of Fee Structure V/S Category/type of Institutes**

Fee Structure	Self-financed institutions			grant-in-aid			Total
	A	B	C	A	B	C	
Normal Fees	6	17	8	16	20	12	79
self financed	18	26	20	4	1	2	71
NRI (Foreign Currency)	6	5	1	1	1	0	14
Management Quota	4	5	4	0	2	0	15
Other (if any)	0	2	1	0	0	1	4
Total	34	55	34	21	24	15	183

From the Table-1, it can be observed that the highest number of institutions i.e.79 (53.37%) have "Normal Fees" as fee structure , followed by 71 (47.97%) institutions have "self financed" as fee structure irrespective of self-financed and grant-in-aid institutions. The numbers of institutions are same in the fee structure of "Management Quota" and "NRI (Foreign Currency)".

The detailed analysis of the different category of institutes 'A', 'B' and 'C' for both self-financed and grant-in-aid institutes are shown in Fig -1

**Figure 1: Categories of Fee Structure V/S Category/type of Institutes**



FROM ALL THE THREE CATEGORIES A, B AND C THE HIGHEST DIFFERENCE IS OBSERVED IN "B" CATEGORY OF INSTITUTIONS.

In the light of the above facts, following findings have been deduced:

The major source of income in educational institutions is income from fees. Indian B-Schools have to follow the norms for fees as given by the AICTE / UGC / State Government. There are other issues which are closely linked with the fees structure which are as under:

- Scholarship to the meritorious students
- Salary to staff and
- Expansion and up gradation of infrastructure facility

B-Schools have to fulfill all the above parameters with the constraints imposed by AICTE/UGC or State Government for charging fees. All these compulsions and constraints create new vistas of problems and opportunities for B-Schools. Majority of "A" grade institutions have started generating money from other sources like organizing faculty development programmes, management development programmes and offering consultancy to industries. This finding is also supported by the survey conducted by **Premchand Palety**, entitled "New-Age Schools the Rising", in Outlook (September-19, 2005, Pp-36-37)

**INTAKE CAPACITY**

The response received from various management institutes in respect of the component intake capacity has been reported in Table -2

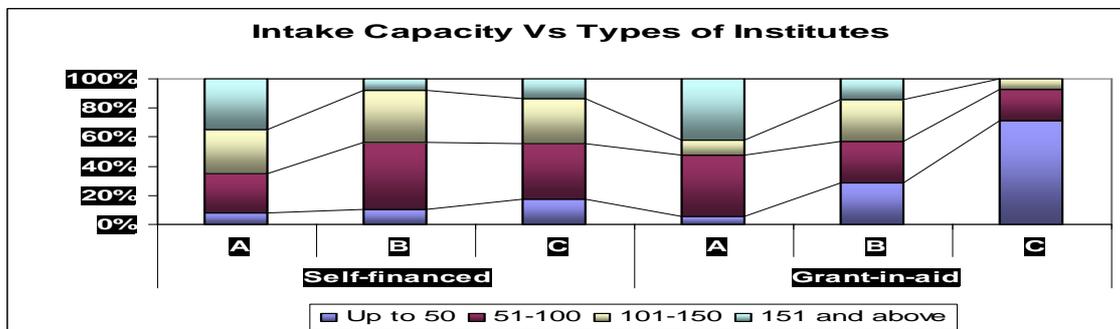
**Table -2: Intake Capacity V/S Type / Category of Institute**

Intake capacity	Self-financed institutions			grant-in-aid			Total
	A	B	C	A	B	C	
Up to 50	2	4	5	1	6	10	28
51-100	7	18	11	8	6	3	53
101-150	8	14	9	2	6	1	40
151 and above	9	3	4	8	3	0	27
Total	26	39	29	19	21	14	148

From the Table-2, it can be observed that the highest number of institutions i.e. 53 have an intake capacity between '51-100', followed by 40 institutions have an intake capacity between '101-150' irrespective of grant-in-aid institutions and self-financed institutions.

The detailed analysis of the different category of institutes 'A', 'B' and 'C' for both self-financed and grant-in-aid institutes has been shown in Fig -2

**Fig: 2: Intake Capacity V/S Category/type of Institutes**



FROM ALL THE THREE CATEGORIES A, B AND C THE HIGHEST DIFFERENCE IS OBSERVED IN "C" CATEGORY OF INSTITUTION.

**TEST OF ASSOCIATION: INTAKE CAPACITY V/S / TYPE/CATEGORY OF INSTITUTE**

The above facts have been further verified by the test of association i.e. chi-squared test. The result of chi-squared test has been reported in Table -3

**Table -3: Chi-Square Tests: Intake capacity V/S /TypeCategory of Institute**

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	50.336(a)	15	0
Likelihood Ratio	45.508	15	0
Linear-by-Linear Association	12.262	1	0
N of Valid Cases	148		

**H<sub>0</sub>: There is no significant relation between intake capacity and Category (A, B, C) category of the institute.**  
**P value = 0 or p value < 0.05**

It is therefore, Null Hypothesis is rejected. It means the chi-squared test revealed the significant association between the intake capacity, and the category of institute. From the chi-squared output table number -3 we see that a significance level of 0.00 (Pearson's) has been achieved. This means that chi-squared test is showing a significant association between the above two variables at 100% confidence level (100- 0 obtained).

Thus we conclude that at 100% confidence level or when p value < 0.05, the two variables are associated significantly with each other. This leads us to conclude that intake capacity plays a vital role in the grading/ type of an institute.

However, when we dropped the categories i.e. A, B and C and focus on type i.e. self financed V/S grant-in-aid following result is obtained.

**H<sub>0</sub>: There is no significant relation between intake capacity and Type of B-Schools (Self-financed V/S Grand-in-Aid)**

**Table -4: Intake Capacity V/S Type / Type of Institute**

**Crosstab**

Count		q-6 What is the intake capacity of M.B.A programme?				Total
		up to 50	51-100	101-150	151 and above	
q 2b is your institute is self financed	No	17	17	9	11	54
	Yes	11	36	31	16	94
Total		28	53	40	27	148

**Table -5: Intake Capacity V/S Type of Institute (Chi Square Test)**

**Chi-Square Tests**

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	11.125 <sup>a</sup>	3	.011
Likelihood Ratio	11.045	3	.011
Linear-by-Linear Association	2.972	1	.085
N of Valid Cases	148		

a. 0 cells (.0%) have expected count less than 5. The minimum expected count is 9.85.

Result shows that there is no significant relationship between intake capacity and type of institute (Self-financed and Grant-in-Aid). However, if the level of significance is increased to 10%, there exist a significant association between intake capacity and type of institution.

**In the light of the above facts, following findings have been deduced**

Intake capacity has a direct relevance to revenue and cost. The demand and supply gap tempts the self financed institutions to grab the growing market share whereas grant-in-aid institutions are not pro-captive in grabbing the opportunity. However, mere increasing in In-take capacity without recruiting full time faculty members may give short term benefit but in long run it is a suicidal attempt.

The other aspects of pricing strategy like scholarship, loan facility, fund raising activities by the leading B-Schools has been collected from the secondary source and how it is useful or important in marketing of B-Schools or designing the pricing strategy (fee structure) is discussed as under.

**SCHOLARSHIP**

Most B-Schools provide financial assistance in the form of scholarship to deserving students. Some of the major institutes providing scholarship are listed below.

**IIM-A**

The following scheme of awarding financial assistance to students is available:

Industry and Other Scholarship (IOS)

Scholarship for SC/ST students (SC/ST)

Need-based scholarship (NBS): Instituted by IIM-A

Need-based scholarship (NBS) Sponsored by Industry

Government of India Merit-cum-Means Scholarship (MCM)

**IIM-B**

IIM-B, some second-year students are selected by instructor to provide tutorial assistance to first year students in selected subjects. Such selected tutors are paid an honorarium.

In addition, a limited number of merit based awards, are available from some sponsors to partially/fully support students' expenses. Awards are currently available from **Citibank, Nestle India, the Ratan Tata Trust and the Aditya Birla group**. A merit-cum-means scholarship form **Bharti Enterprises** is also available for deserving students.

**FMS-Delhi**

FMS has a tie up with State Bank of India for providing loans. Scholarship is provided by **Sanwa Bank Foundation, Nestle India and GE**.

**ISB-Hyderabad**

At ISB about one third of the students get scholarship. The ISB has negotiated with **HDFC, Andhra Bank, State Bank of India** to facilitate loan offers for admitted applicant, at low interest rate, that covers up to **90-95** of the programme cost.

**MDI- Gurgaon**

MDI offers "**MDI Merit Scholarship**" of Rs.1,00,000/- each. "**GE Foundation Scholarship**" of Rs.3 lakh each to two students on the basis of **citizenship, academic performance and leadership capability**. Scholarship by way of tuition fee waiver is also provided to incoming foreign students under exchange programme.

**IIFT**

Under Need based scholarship scheme, interest payable on educational loans of **Rs.1.5 lakh per annum** up to a maximum period of two-and-a-half years in borne by IIFT in respect of all students who avail educational loans from a bank and whose family income is less than Rs.2.5 lakh per annum

Differential pricing, based on consumer willingness to pay may also be utilized for the education service. The practice of charging fees for the sponsored candidates and the non sponsored ones is common in professional courses, so is the practice of charging differential fees from full time and part time evening participants of the study programme.

**LOAN FACILITY**

MBA is an expensive course to pursue. Such sum of fees can throw most middle classes house hold budgets out of gear. But help is at hand. Almost every institute offers tie up with the banks. Several banks offer reasonably priced students' loans that cover the **cost of tuition fees, boarding and lodging expense, and cost of books and laptops, other incidental expenses and in some cases, even the cost of travel**. State Bank of India, Oriental Bank of Commerce, Corporation Bank, Canara Bank and Bank of Baroda and several others offer loans that include **moratoriums** on repayments till **6-12** months after the completion of course.

Most banks give loans of up to Rs **8-10 lakh** at rates of **10-11 per cent per annum**. These loans are for duration of up to **7 years**. You may have to pay **margin money of 5 percent of value of loan** and may also need to furnish a third party guarantee or collateral security if the loan amount is large. But most banks don't insist on these for loans of up to Rs. 4 lakh.

**FUNDRAISING**

The performance of Dean should have the criteria of how much money he/she has raised. Fund raising should not be considered as a secondary activity. However, without the active cooperation of all the faculty members and alumni fund can't be raised. All three has to work in harmony. B-School must create its fund raising team and it has to be headed by the director of development who reports to the Dean of the school. In addition, schools should hire expert fundraisers or firms that help in this effort. These funds are in addition to those saved by the school from its own investments, tuition fees, overheads on research grants & institutional consultancies. There are three broad constituencies from whom funds are raised: the alumni, development & family foundations, and corporations. Surviving only on tuition fees creates many constraints for the institutes to design state-of-the-art infrastructure facility, scholarship to meritorious students etc. Institute must raise fund so that they should meet the above mentioned requirements without diluting the quality of the students and staff. For example Spring University of US has raised huge endowment fund which will take care of all the overhead for the next 50 years. The B-Schools must create corpus to take care of expanding and upgrading infrastructure without charging very high tuition fees from the students.

The fund raising team meets potential donors, make presentations, and distribute fundraising dossier. The donor is patiently and systematically engaged with the school and its activities. Once the campaign is over, the donors are formally acknowledged both privately and in public. Most B-Schools name buildings/chairs/centers after the donors, place plaques outside facilities like classrooms/dining facilities/recreational facilities etc. and display names of donors who contribute significantly at a prominent place on the campus e.g IIM-A has Kasturbhai Lalbhai Management Development Centre (KLMDC), ISB has raised huge fund from corporate houses and constructed the lecture hall or centre of excellence in the name of corporate house or donors e.g Reliance Lecture Hall, Wadhvani Centre of Entrepreneurship etc. As it may be obvious, fundraising is done by a dedicated team of people at the school with lots of help from people outside the school both in its planning and implementation. Interestingly, most management institutes appoint members on the board with a potential to contribute directly or help raise funds for the school. Fundraising by these schools is done globally.

**FINANCIAL RESOURCES**

The B-Schools raise huge financial resources along with the market driven tuition fees. It is worthwhile to consider market driven fees with large number of scholarships to students who are meritorious and unable to fund their education. Building of corpus is essential to develop state-of-art educational facilities, acquiring academic resources do develop new programmes and to enhance existing ones, and for providing competitive compensation (without being a burden to the government) so that they can attract best of faculty. Professional Manager should be appointed who can help in raising the fund through donation and also market the short-term or Management Development Programme of the institute to raise the fund. B-Schools also need to learn about nurturing relationships so that well wishers can bequeath resources to the school.

School leadership may develop events where such well wishers could be engaged with the school. Another possibility could be resources generated through sale of intellectual property developed at the school (e.g., IIM-A sales case study developed by IIM-A). Schools that invest in research will be able to develop these and other new opportunities for raising resources for various activities.

### CONCLUDING REMARKS

Price is the only P in marketing mix which generates revenues. Rest of the P's is cost oriented. The cash flow of the institute depends upon the amount generated by proper pricing i.e. fees. In all types of business the cash flow takes place through out the year but in education the major chunk of cash takes at the beginning of the academic year. All the activities, expansion programmes, salary of the staff and upgrading of infrastructure is totally depend upon the price. Intake capacity has a direct relevance to revenue and cost. The demand and supply gap tempts the self financed institutions to grab the growing market share whereas grant-in-aid institutions are not pro-captive in grabbing the opportunity. The survey results also revealed that there exists the significant association between the intake capacity, and the category of institute. However, there is no significant relationship between the intake capacity and the type of institute (self-financed V/s grant-in-aid). Of late many management institutions started generating money by organizing management development programme and other short term courses. The importance of price gets multiplied in the environment of competition and withdrawal of the government's funding. Therefore, we can conclude that pricing is the most important element in designing the future programme.

### REFERENCES

- A Thothathri Raman, Business India, "The Way to go" October 24, November 6, 2005 pp-79  
 Aarti Kothari, "All in the Family", Business World, 27 September-3 October 2005, Vol-25, Issue 19  
 Alberto Carneiro "Teaching Management and Management Educators: Some Considerations", Management Decision, vol-42, ¾ 2004, pp 430-438  
 B Bowender, S L Rao "Management Education in India: its revolution and some contemporary issues" Excel Book Pvt Ltd, New Delhi  
 Gabriel Hawawini, "The Future of Business Schools", Journal of Management Development, Vol-24, No-9, 2005, Pp-770-772  
 Hema Ramakrishnan and Saket Ambarkhane, "Symbiosis Plans Two Academic Session", The Economic Times, Ahmedabad, Saturday 4 November 2006, Pp-6  
 Manish Bhatt "After Chugging Along For A While, IIM-A Lands at Airport", The Economic Times, Ahmedabad, Monday 7 August 2006  
 Manish Purang, "Look Beyond This Headline", The Economic Times, September – 2006.  
 Mayur Parmar and Rajendra Joshi "Marketing Tools" A Seminar Report on Education Marketing, G.H.Patel P.G.Institute of Business Management.Pp13-14  
 Neelima Mahajan & Aarti Kothari "New Frontiers" Business World, Vol-24, issue-15, September 2004, Pp-42  
 Pankaj Chandra "Elements of World Class Management School" Working paper No. 2003-09-03 September -2003, Indian Institute of Management- Ahmedabad, Pp-1-52  
 Parani Kawatra & Nanada Majumdar "The Best B-Schools" – Cosmode Report, Business Today, May 7, 1998, Pp- 77  
 Prof Jahar L Saha "Standard cannot be diluted" Alumnus, February 2006 pp – 43  
 Rakesh Khurana, Madhulika Kaushik and Kamal Yadava "Marketing of Services-Concepts and Applications" School of Management IGNOU, Pp-175-190  
 Rashmi Bansal, "Branching Outward", Business world, 3 October 2005, Pp-82  
 S L Rao "An Agenda for Proactive Action" Indian Management, September-2005, pp-78-79  
 Shreya Biswas "College Hone Students for Interview" The Economic Times, 19<sup>th</sup> December -2006, Tuesday, Pp-6  
 T.R.Vivek "MBA Live On Air", Outlook, 19 September-2005, pp 78-79  
 Tarun Narayan "Rebooting online MBAs", Indian Management", Vol-44, issue 09, September-2005, Pp100—101  
 Times of India (2003) "Diagnostic CAT 2003" Feb 19  
 Vipin Gupta, Kamala Gollakota and Ancheri Sreekumar, "Quality in Business Education: A study of the Indian Context", paper presented at the Business Education and Emerging Market Economies: Trends and Prospects Conference, Technology Square, Atlanta, Georgia, USA, November 7, 2003.

**INDIAN TEACHER'S STRESS IN RELATION TO JOB SATISFACTION: AN EMPIRICAL STUDY****DR. B. V. PRASADA RAO****ASSOCIATE PROFESSOR****ADAMA UNIVERSITY****ETHIOPIA****S. R. PDALA****TEACHING ASSOCIATE****A. U. P. G. EXTENSION CENTRE****VIZIANAGARAM****WAKO GEDA OBSE****LECTURER****SCHOOL OF HUMANITIES AND NATURAL SCIENCES****ADAMA UNIVERSITY****ETHIOPIA****ABSTRACT**

*The aim of the research is to study the relationship between stress and job satisfaction among secondary school Teachers, besides testing whether the correlations obtained for the comparable sample differ significantly and concludes that both the aspects are significant statistically. The variables like Sex, Locality, Qualification, Experience, and type of management in respect of teachers stress are statically significant, while the variables like locality, Age, Experience, marital status and type of institution in respect of Teacher job satisfaction are differed significantly. The Teacher stress and job satisfaction aspects are independent but they are inter- dependent. The investigation shows that there is significance of relationship between the Dimensions of Teacher Stress and job satisfaction.*

**KEYWORDS**

*Stress, job, satisfaction, teacher, institution.*

**INTRODUCTION**

The ultimate aim of any education is to make a man of good character and useful citizen of the universe. This aim of education we can achieve through the quality of education, quality of teachers and quality of teaching learning process. Other things remaining, the quality of education largely depends on the quality of teaching learning transaction. This Teaching learning transaction cannot be undertaken in vacuum but it positively directed action, for which teacher's are to be endeavor with creative teaching and satisfaction towards a job. This is the right time to focus the significance of Teacher Stress and Teacher job Satisfaction.

There should be enormous amount of research has to be taken place to answer the queries like- what is Teacher stress? What is teacher job satisfaction? How far Teacher stress and Teacher Job satisfaction are correlated? How far Teacher stress and Teacher Job satisfaction are related to pupil out comes in different areas of class room learning? The impacts of Teachers stress and Teacher Job satisfaction on achievement of Educational objectives are to be answered.

The absence of a high dropout rate and job turnover among Indian teachers does not necessarily mean that they do not experience stress and lack of job satisfaction. This may be due to entirely different reasons like non-availability of alternative job opportunities and fear of taking risks. It is hard to believe that they do not experience stress and are not frustrated and disillusioned with their professional like under the situation prevailed in the institutions and social condition. Experiencing constant dissatisfaction with the job has many repercussions for the individual's adjustment to work as well as in personal and social life and may have magnetic impact on individuals' total personality and resulting substandard performance.

**REVIEW OF LITERATURE**

Coats and Thoresen (1976) in their studies on Teacher anxiety quote the NEA report to show the growing incidence of teacher anxiety. Kyriacou and Sutcliffe (1978) in a study of 257 in a study of 257 teachers of 16 schools in England noted that 15.6% found being a teacher 'very' stressful while 4.3% found it 'extremely stressful' (total 19.9%). David, W.Chan and Eadaoin, K.P. Hui (1998) reported that regardless of gender and guidance status, teachers with low stress and high support levels generally reported less general psychological symptoms, and teachers with high support level reported less specific symptoms related to anxiety and sleep problems. Whereas the studies of Arikwuyo and M. Olalekan (2004) disclosed that the average Nigerian teacher prefers to organize him/herself in such a way that his/her pedagogic duties will not be hampered by domestic chores. It also implies that, whenever the teacher is stressed, he/she consoles him/herself with the fact that work is not everything and therefore feels less stressed. The teachers never use the active cognitive strategies. Their feeling is that nothing probably can be challenged in stressful situations. The teachers also express mixed feelings about the adoption of inactive behavioral strategies.

While in the case of teachers Job satisfaction the studies of Garrett, R.M (1999) that the evidence available from mature educational systems identified a complex picture in which job satisfaction, itself a multi-faceted concept, was closely related to other the key factors of work life complexity and work centrality. The studies of Zembylas, Michalinos, papanastasiou, Elena ( 2004) findings “ An adapted version of the questionnaires developed by the “teacher 200 project” was translated into Greek and used for the purposes of this study that had a sample of 461 K- 12 teachers and administrators. This showed that, unlike other countries in which this questioner was used, Cypriot teachers choose this career because of the salary, the hours, and the holidays associated with this profession. While Naik, G.C ( 1990) found that ad hoc teaching assistants of the M.S University, Baroda, were satisfied with their jobs mainly because of their favorable attitude towards the teaching profession, financial consideration and the facilities which they were getting for further studies, marital status, age, experience and gender did not affect their level of job satisfaction, leadership qualities of heads of institutions prompted job satisfaction, and group goals and objectives were essential parameters in determine the job satisfaction of teachers. Sex, experience and background variables had no bearing on job satisfaction.

### OBJECTIVES OF THE STUDY

The specific objectives of the study are:

1. To studying the relationship between Teacher stress and Teacher job satisfaction; and also find relation ship between the various dimensions of Teacher stress and Teacher job satisfaction;
2. To identify the significance of difference between demographic and professional variables like sex, Locality, Qualification, Age, marital status, experience and type of institution in respect of Teacher stress and job satisfaction.

### HYPOTHESES

1. There is no significance of relationship among the selected sample of secondary school Teachers in their stress and job satisfaction
2. There is no significance of relationship between the dimensions of Teacher stress and Teacher job satisfaction scales.
3. There is no significance of difference between the Teacher in their stress and job satisfaction taking the variables like sex, locality, qualification, Age, marital status, experience and Type of institution.

### SAMPLE

The sample selected for present investigation is covering with 178 secondary school teacher from different institutions situated in different areas. Random sampling technique is followed to draw the sample for the present study.

### PROCEDURE

In order to test the hypotheses the investigator is planned and executed in four phases. In the first phase developing and standardization of Teachers stress and Teacher job satisfaction self-rating scales. In the second phase measuring the Teachers' opinionative with the help of above two self-rating scales. In the third phase using appropriate statistical procedure is adopted to find out the significant relationship between Teacher stress and Teacher Job satisfaction. In the fourth phase using appropriate statistical procedures to find out the significant difference between the different demographic variables of teachers in their Teacher stress and Teacher job satisfaction.

### ANALYSIS OF DATA

The following statistics are calculated for arriving at conclusions likes co-efficient correlation to find the relationship between stress and job satisfaction and also obtained the critical ratio values variables wise.

**Table 1: Table showing significance of 'r' between Teacher stress and Teacher job satisfaction**

Variable category	N	Df	'r'	Probability
Teacher stress Teacher job satisfaction	178	176	0.69	Significant at 0.01 level

**Table 2: Table showing the inter-correlation Matrix of various Dimensions of Teacher stress of Uday's scale**

	Intensity of work	Students' Behavior	Professional growth	Extrinsic Annoyers	Total Teacher Stress
Intensity of work	1.00	0.46	0.36	0.58	0.41
Students' Behavior	-	1.00	0.62	0.45	0.38
Professional growth	-	-	1.00	0.54	0.61
Extrinsic Annoyers	-	-	-	1.00	0.45
Total Teacher stress	-	-	-	-	1.00

**Table 3: Table showing the inter-correlation Matrix of various Dimensions of Teacher Job satisfaction scale**

	professional	Teaching learning	Innovation	Inter-personal Relations	Total Teacher job satisfaction
professional	1.00	0.56	0.48	0.37	0.29
Teaching learning	-	1.00	0.65	0.45	0.34
Innovation	-	-	1.00	0.39	0.47
Inter-personal Relations	-	-	-	1.00	0.38
Total Teacher job satisfaction	-	-	-	-	1.00

**Table 4: Table showing the significance of difference of Mean between Teachers Taking the various variable into consideration in their stress**

Variable Category	Mean	S.D	N	C.R
Male Teachers	92.65	22.97	86	2.01*
Female Teacher	99.28	20.91	92	
Rural area Teachers	100.11	22.13	62	2.16*

Urban area Teachers	93.15	18.61	111	
Teachers with TTC	94.74	22.36	56	2.29*
Teachers with B. Ed,	102.54	19.33	122	
Below 35 years Experience	85.37	22.91	80	1.54@
Above 35 years Experience	90.64	22.74	92	
Married Teachers	102.37	19.31	94	1.8@
Unmarried Teachers	96.74	22.09	84	
Below 15 Years Age	97.29	20.86	98	2.06*
Above 15 years Age	103.51	19.46	80	
Residential School Teachers	96.72	21.73	74	3.87**
Non-residential School Teaches	91.14	17.85	104	

\*\* Significant 0.01 level \*Significant 0.05 level @ Not significant at any level

**Table 5: Table showing the significance of difference of mean Between Teachers Taking the various variable into consideration in their job satisfaction**

Variable Category	Mean	S.D	N	C.R
Male Teachers	94.65	21.62	86	1.78@
Female Teacher	100.26	20.22	92	
Rural area Teachers	99.49	18.71	67	2.65**
Urban area Teachers	92.12	16.87	111	
Teachers with TTC	95.54	20.44	56	1.84@
Teachers with B.Ed,	101.45	18.51	122	
Below 35 years Age	94.75	21.69	98	
Above 3 years Age	85.73	22.72	80	2.69**
Married Teachers	100.85	22.29	94	2.27*
Unmarried Teachers	93.74	19.43	84	
Below 15 Years Age	102.15	19.63	92	2.36*
Above 15 years Age	93.69	20.86	86	
Residential School Teachers	101.52	21.37	74	1.98*
Non-residential School Teaches	92.59	18.52	104	

\*\* Significant 0.01 level \*Significant 0.05 level @ Not significant at any level

**Table 6: Table showing the mean values of the Dimensions in respect of job satisfaction and stress**

(N= 178)

Job satisfaction			Stress		
Dimension	Mean	S.D	Dimension	Mean	S.D
Professional	24.38	4.29	Intensity of work	24.8	5.99
Teaching Learning	19.88	3.94	Student's Behavior	22.36	4.72
Innovation	16.57	3.71	Professional Growth	25.63	6.11
Inter-personal relations	18.45	3.29	Extrinsic annoyers	45.67	9.98

## RESULTS & DISCUSSION

1. There is significance of relationship between stress and job satisfaction among the secondary school Teachers.
2. There is significance of relationship between the dimensions of Teacher stress.
3. There is significance of relationship between the dimensions of teacher job satisfaction
4. In respect of teacher stress, there is significance of difference between the variables sex, Locality qualification, Age and Type of Institution. Whereas the Teachers in respect of Experience and marital status categories do no differ significantly.
5. In respect of Teacher job satisfaction, there is significance of difference between the variables- locality, Experience, Age marital status and type of institution. Whereas the Teachers in respect of sex and Qualification categories do not differ significantly.
6. In respect of job satisfaction professional aspect is highest in the merit order followed by teaching learning. Inter- personal Relations and innovation. While in the case of stress- Extrinsic Annoyers aspect is in the highest in the merit order follow by professional Growth, intensity of work and student's Behavior.

## CONCLUSIONS

The result of the study disclosed that the job satisfaction aspect influenced in respect of variables sex, locality, Qualification, Age, Experience and type of institution, whereas the stress aspect influence in respect of variables locality, age experience, marital tutus and type of institution. There is significance of difference between the teachers in their job satisfaction and stress in respect of variables – locality, experience and type of institution from the above findings it is concluded that the Teacher stress and job satisfaction aspects are independent and interdependent.

**REFERENCE**

- 1) Ahuja, D.C " Mental health Hazards among school Teachers' The Educational Review 8, 1976 155- 157
- 2) Barr, A.S 'Measurement of Teaching Efficiency' in growing points in Educational Research Official Report of American Educational Research Association, 1949.
- 3) Garrette H.E ' statistics in psychology and Education, New York David MC kay Co, Inc 1966
- 4) SGuilford J.P psychometric methods in psychology and Education Mac Grow Hill Pub.co, Inc. Tokyo 1978
- 5) Gupta ( 1081) Job involvement and patterns of primary school Teachers in relation to Teacher Effectiveness, Ph.D.Edu. All Univ.
- 6) Jenkins C.D Psychological modifiers of responses to stress, journal of Human stress Dec, 1979, 3.15
- 7) Kyriacou, C & Sutcliffe J. Teacher stress- prevalence, sources and symptoms', British journal of Educational psychology 1978, 158-167.

## INEFFECTIVE CORPORATE GOVERNANCE: CHALLENGES OF INTERNAL AUDIT FUNCTION

**DR. ISHOLA RUFUS AKINTOYE**

**SR. LECTURER, DEPARTMENT OF ACCOUNTING & FINANCE  
OLABISI ONABANJO UNIVERSITY, AGO-IWOYE  
NIGERIA**

**DR. RICHARD O. AKINGUNOLA**

**SR. LECTURER, DEPARTMENT OF ACCOUNTING & FINANCE  
OLABISI ONABANJO UNIVERSITY, AGO-IWOYE  
NIGERIA**

**JIMOH EZEKIEL OSENI**

**PH. D. SCHOLAR, FACULTY OF SOCIAL AND MANAGEMENT SCIENCES  
OLABISI ONABANJO UNIVERSITY, AGO-IWOYE  
NIGERIA**

### ABSTRACT

*Several literatures have established relationship between internal control functions and corporate governance. For instance, the literatures pointed out the need for effective internal control function for the development and effectiveness of corporate governance. Earlier studies did not give consideration to the importance and effectiveness of corporate governance as a necessity to guaranteeing the effectiveness of the internal control function. This study bridges the gap in the earlier studies by examining the risks internal auditors face in environments not characterised with effective corporate governance. We administered questionnaires to personnel that perform internal audit functions to ascertain the roles corporate governance plays in achieving effective internal control function. We found out that corporate governance promotes effective internal control function and where the latter is absent the former cannot but operate ineffectively.*

### KEYWORDS

Internal audit function, internal auditor, corporate governance, board of directors.

### INTRODUCTION

Internal audit and control functions are essential for every corporate entity that wants to thrive beyond survival and as well hinged on corporate governance. The essence of internal control and audit function is to ensure the going concern of an entity by safeguarding its assets, ensuring that all resources are efficiently deployed in the interest of the organisation, management and regulatory policies are complied with. The operators of internal control function could be referred to as internal auditors, quality assurance or compliance officers. It is their job to ensure that wastages are eliminated or minimised to achieve the common goal of the organisation.

Several literatures have established relationship between internal control functions and corporate governance, for instance, For instance, Bookal (2002) posits that internal audit is integral to good corporate governance. Also, KPMG (2003) argue that the development of corporate governance depends on the effectiveness of the organisation's internal control framework. The literatures pointed out the need for effective internal control function for the development and effectiveness of corporate governance. They did not give consideration to the importance and effectiveness of corporate governance as a necessity to guaranteeing the effectiveness of the internal control function. This study breaches the gap in the earlier studies by examining the risks internal auditor face in environments not characterised with effective corporate governance.

### LITERATURE REVIEW

#### CONCEPTUAL FRAMEWORK

Internal control system is the whole system of controls, financial and otherwise, established by management in order to carry on the business of the enterprise in an orderly and efficient manner, ensure adherence to management policies, safeguard the assets and secure, as far as possible, the completeness and accuracy of the records. On the other hand, internal auditing is generally defined as an independent appraisal function established by the management of an organisation for the review of the internal control system as a service to the organisation. It objectively examines, evaluates and reports on the adequacy of internal controls (Miglietta, Anaclerio and Bettinelli, 2007) as a contribution to the proper, economic, effective and efficient use of resources

The internal control function is preventive while internal auditing is reactive. According to University of California, effective control system provides reasonable, but not absolute assurance for the safeguarding of assets, the reliability of financial information, and the compliance with laws and regulations. In essence, internal control function is both a preventive and detective function of risks and infractions (errors and frauds) that could jeopardise the attainment of the predetermined overall goal of the organization. The Institute of Internal Auditors (1999) defined internal auditing as an independent, objective assurance and consulting activity designed to add value and improve an organization's operations. Internal auditing helps the organization to accomplish its objectives by bringing a systematic, disciplined approach to evaluate and

improve the effectiveness of risk management, control, and governance processes. Both internal auditing and internal control systems are management tools to achieving efficiency.

#### **THE CONCEPT OF CORPORATE GOVERNANCE**

Corporate governance is essential in today business world. Increasing attention is being attracted to the importance of corporate governance in ensuring transparency and quality decision making (Wu, 2002; Palmrose and Scholz, 2002), especially after the collapse of Enron and massive manipulations of financial statements by Cadbury Plc (Nigeria) and failure of other world class business entities in the recent years. According to Ali-Shah, Butt and Hasan (2009) corporate governance leads "to better corporate performance by preventing the expropriation of controlling shareholders and ensuring better decision-making. Good governance means little expropriation of corporate resources by managers or controlling shareholders, which contributes to better allocation of resources and better performance". Capulong, Edwards, Webb and Zhuang (2002) defined it as a system that consists of a set of rules that define the relationships between shareholders, managers, creditors, the government and other stakeholders (i.e., their respective rights and responsibilities) and the mechanisms that help directly or indirectly to enforce these rules. Ali-Shah, Butt and Hasan (2009) identified ownership structure, Board structure and Board Audit Committee independence as determinants of quality corporate governance excluding internal audit functions which other studies identified as one of the mechanisms required for the effectiveness of corporate governance along with external audit, directorship and Board Audit Committee ((Anderson, Francis and Stokes, 1993; Blue Ribbon Committee (BRC), 1999; Institute of Internal Auditors [IIA], 2002). However, Barac and Staden (2009) in their study of the correlation between perceived internal audit quality and defined corporate governance soundness in South African companies discover that no correlation exist between the defined soundness of the corporate governance structures and the perceived internal audit quality of participating companies. Barac and Staden (2009) expressed doubt with their findings and challenge further studies into the into the relevance of internal audit as a true corporate governance mechanism

It is therefore obvious from Capulong, Edwards, Webb and Zhuang's (2002) submission that effective corporate governance depends on the effectiveness of the internal control system. Similarly, Australian Governance Masters Index Fund Limited defined corporate governance as a set of systems, policies and procedures which define the way in which a company is governed. It establishes the objectives of a company ensuring that the administration and management of a company is undertaken in a manner which is consistent with the interests of the company's shareholders. Additionally, it establishes a system for monitoring and evaluating the achievement of those objectives. Corporate governance promotes responsibility and accountability for use of authority and resources in achieving the overall objectives of an organisation (BRC, 1999, Rezaee, Olibe and Minnier, 2003; Ribstein. 2005; Wu and Tsou, 2007). The responsibility for ensuring effective corporate governance differs from organisations and according to Broadley (2006), the BoD, BAC and other supervisory committees could be assigned that responsibility.

Wells (2009) defined effective corporate governance as demonstrating responsible stewardship to ensure the company's sustainability, being accountable to shareholders, and delivering a return on investment and credibility within the marketplace. According to him effective corporate governance can be achieved if the BoD put in place mechanisms for assessing internal control over financial reporting, decreasing vulnerability to fraud and misconduct and demonstrating integrity and advocating corporate responsibility.

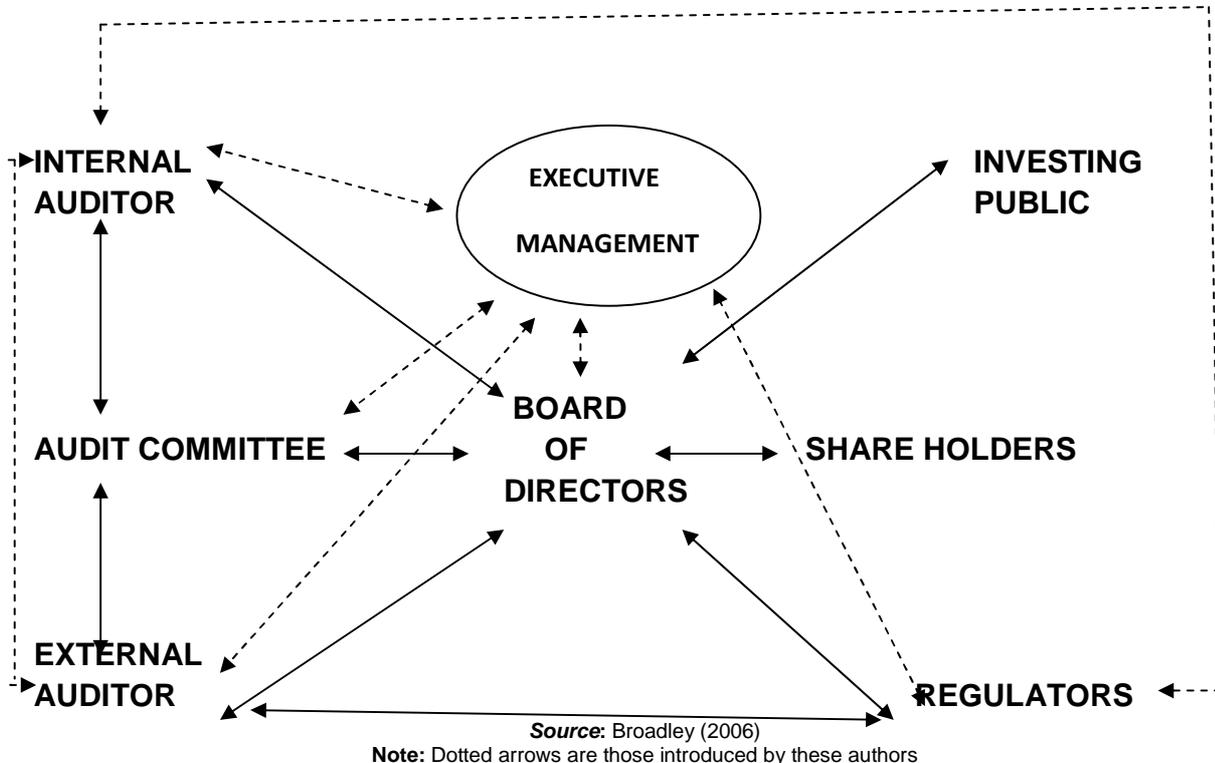
#### **THE ROLES OF INTERNAL CONTROL FUNCTION IN ENSURING EFFECTIVE CORPORATE GOVERNANCE**

Broadley (2006) in justifying the essence of corporate governance argues that no governance system, no matter how well designed, will fully prevent greedy, dishonest people from putting their personal interests ahead of the interests of the companies they manage. He further argues that the auditor does not have direct corporate governance responsibility but rather provides a check on the information aspects of the governance system.

There is no dispute as to the relevance of internal control function in ensuring effective corporate governance (Spencer Pickett, 2003; Green and Gregory, 2005; Jackson, 2005) except that there is consensus as to what the exact roles are. For instance, Abu Dhabi Centre for Corporate Governance (2010) identified two roles for internal audit function in ensuring effective corporate governance, namely: first, provide independent, objective assessment on the appropriateness of the organization's activities and secondly, act as catalysts for change, advising or advocating improvements to enhance the organization's structure and practices. The Internal auditor's unique position in an organization allows him or her to observe governance structure and design, while not having direct responsibilities on them. By supporting the audit committee in fulfilling its roles and providing assurance on the organization's risk management, control and governance processes, internal auditing becomes a key cornerstone for effective organizational governance.

From the Figure 1 below, Broadley (2006), shows that in corporate governance, internal control function relates with the Board of Directors (BoD) through the Board Audit Committee (BAC) unlike the external auditor that has direct relationship with both the Board and the BAC. But beyond the view of Broadley (2006), internal audit function in corporate governance is equally required in interfacing with both the Executive Management who are charged with the day to day affairs of the organisation, external auditors and the regulators, hence our dotted lines in the Figure 1 below (Broadley, 2006)

Figure I: Where Does The Auditor Fits in?



Julien and Rieger (2007), argues that internal audit function performs a pivotal role in strengthening corporate governance. Verlag (2007) in studying the role of internal audit in corporate governance in Europe identified eight roles for internal audit function in ensuring effective corporate governance. The roles as identified by Verlag (2007) and Gennaro (2007) are:

- i) Supporting an effective Enterprise Risk Management
- ii) Ensuring compliance with all the organizational policies
- iii) Taking a more active role in supporting companies code of ethics
- iv) Forming a supporting role in executive BoD tasks
- v) Increased cooperation with external auditors
- vi) Stronger support for the Board of Directors, and
- vii) Providing a closer cooperation and communication with controlling departments

KPMG (2004) emphasizing on its experience in Singapore argues that internal audit function assists the Board of Directors to discharge its corporate governance responsibilities by performing a review of the organization's control culture, an objective evaluation of the existing risk and internal control framework, systematic analysis of business processes and associated controls and reviews of the existence and value of assets. As we identified with dotted arrows in the Figure 1 above, the involvement of internal control function goes beyond those identified by Broadley (2006) as it can be seen that with the exception of the investing public, the shareholders and the BoD, it interacts virtually with all other stakeholders in the enforcement of effective corporate governance.

The roles of internal audit function may not be too different from the traditional roles of ensuring asset safety and ensuring compliance with all management policies but the challenges are more tasking than ever before. The relevance of internal audit function in ensuring effective corporate governance is of diversity and cuts across all the segments of the organization. Internal control function with its independence provides an oversight function over the day to day affairs of the organization on behalf of the BAC. To emphasize the importance of internal control function, Coram, Ferguson and Moroney (2007) described it as "crucial part of an entity's corporate governance"

#### METHODOLOGY

For the purpose of data collection, we issued out a structured questionnaire to one-hundred sampled internal auditors drawn from one-hundred organizations in the private sector. The sampling which is judgemental cuts across the various sectors: banking, service, manufacturing, oil and gas. All the organizations were listed on the Nigerian Stock Exchange. The questionnaires were delivered to the email addresses of the respondents obtained through the association of internal auditors.

The choice of private sector is influenced by the fact that corporate governance appears to have been more embraced in the private sector where competition and best practise drives business than in the public sector where competition is either less or inexistent. It is expected that listed companies would be display better commitment to corporate governance than those that are not listed on the stock exchange. The same disciplines on the private sector to have in place good corporate governance are absent in the public sector (Armstrong, 2001; Institute of Chartered Accountants of New Zealand, 2003; Prasad and Rao, 2009). The accounts of public sector and government agencies in Nigeria are seldom prepared (World Bank/International Records Management Trust, 2002; Jansson, 2005) and directives, policies and final decision are often made by the Heads of the organisation other than a body of directors as it is found in the private sector.

The structured questions are grouped into four, namely;

- i) Existence of effective corporate governance
- ii) Understanding the role(s) of internal auditing in ensuring effective corporate governance
- iii) Understanding the role(s) or importance of corporate governance in ensuring effective internal control function, and lastly
- iv) Understanding the challenges of internal control function in the absence of (effective) corporate governance

Only 92% of the questionnaires were returned by the respondents. Being a non-parametric data, we used the Likert-scale for ranking the responses from the questionnaire.

We tested one hypothesis:

H0: Corporate Governance does not impact on internal audit function

H1: Corporate Governance impacts on internal audit function

Developing a simple linear regression model as follows

$$IAF = f(CG) \quad \text{eqn. (1)}$$

We expand equation (1) to recognise the internal auditors understanding of the roles and importance of corporate governance in ensuring effective internal audit function

$$IAF = \alpha + \beta1U + \beta2R + \beta3I + \beta4C + \epsilon \quad \text{eqn. (2)}$$

Where:

IAF = Effective internal audit function

CG = Effective corporate governance

U = Internal auditors' understanding of the concept of corporate

Governance

R = Internal auditors' understanding their roles in ensuring effective corporate governance

I = Internal auditors' understanding the importance of corporate

governance in ensuring effective internal control function

C = Internal auditors' understanding the challenges of internal control

function in the absence of (effective)corporate governance?

## RESULTS AND DISCUSSION OF FINDINGS

### DESCRIPTIVE ANALYSIS

#### UNDERSTANDING THE CONCEPT OF CORPORATE GOVERNANCE

Corporate governance is found to exist only in twenty-nine companies representing 31.5% of the sample organizations but corporate governance was found to be effective in 5 organisations representing 5.1% of the total sample. The respondents who agreed that the corporate governance is ineffective provide the following reasons:

- i) the Board that has the oversight function in ensuring the existence and effectiveness of corporate governance hardly meets to discharge its responsibilities,
- ii) the decisions of the Board are seldom implemented and infractions on the part of management are not sanctioned, and lastly
- iii) the Board either does not require feedbacks from internal audit function (internal audit reports) or hardly given attention to the feedbacks when provided.

Eighty-two respondents agreed to the executive Management having the final say in decision making in their organizations in spite of the fact that functional boards exist. This finding implies that the executive Management exerts overbearing influence over the Board of Directors thereby suggesting the inexistence or ineffectiveness of corporate governance. We also observed that functional and operational policies are undocumented in many of the respondents' organisations as 76 of the respondents claimed that most of the policies are in memorandum and inherited traditions that could be displaced at will by the authority. The level of embracement of corporate governance in private sector is very low which could have accounted for many of the collapsed and non-performing institutions in Nigeria especially in the Banking industry where the Chief Executive Officers (CEOs) hold sway.

The internal auditors appear generally to have sufficient understanding of the concept of corporate governance, though, not many of them operate in environments that it is being implemented.

#### UNDERSTANDING THE ROLE (S) OF INTERNAL AUDITING IN ENSURING EFFECTIVE CORPORATE GOVERNANCE

All the respondents agreed that internal audit function is essential for the attainment of corporate governance objectives which include accountability by all stakeholders of the resources, authority and power entrusted to them. This findings confirm earlier studies (Broadley,, 2006 ; Julien and Rieger, 2007; Coram, Ferguson and Moroney, 2007; Verlag, 2007; Gennaro, 2007).

The respondents view their roles in a corporate governance environment as virtually different as there are more demanding, require more proactive and timely actions and team work than the traditional roles of internal auditing function as a watchdog. The internal auditors are stakeholders in corporate governance and they cannot be absolved from its successes and failures.

The internal auditor is expected to be a risk manager identifying possible risk areas, material or immaterial that could hinder the realization of the goals and rather than apportion blames for the risks, he is expected to proffer solutions to the management and see that the approved solutions are implemented. The roles are therefore demanding and put the internal auditor on a hot chair ensuring that he has good and up-to-

date product knowledge of the entire system and processes and must always be proactive against the reactive nature of internal audit function in the past.

In a nutshell, the internal auditor in a corporate governance environment is a part of the system and the process while maintaining its independence. His involvement in the process is proactive (error and fraud prevention) away from the usual reactivity (error and fraud detection), he is part of the process to the extent that he plays advisory roles (consulting and guidance) and ensuring approved policies are not breached. The internal auditor independence (highly subjective and contestable) is reasonably assured if he is not part of the initiation and approving process of the organisation transactions but where his appointment and promotion is determined by the auditee (Management), how independent could he be?

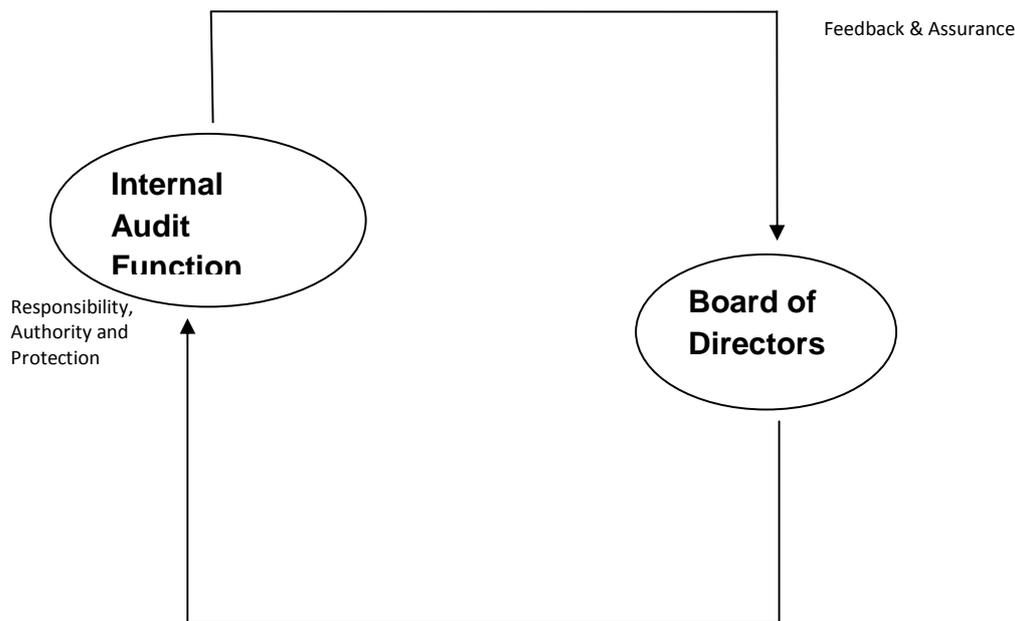
**UNDERSTANDING THE ROLE(S) OR IMPORTANCE OF CORPORATE GOVERNANCE IN ENSURING EFFECTIVE INTERNAL CONTROL FUNCTION**

One of the thrusts of this study is to understand the role(s) and/or importance of corporate governance in ensuring effective internal audit function. Earlier studies have shown that internal audit is crucial to achieving effective corporate governance but no study to our knowledge has shown that corporate governance is also essential to achieving effective and efficient internal audit function.

The role of external audit is to provide opinion of the true and fair view of the stewardship reports of the Management to the shareholders through the BoD. The external auditor performs a post-mortem examination and which is reactive and does nothing to change the situations under review unlike the internal auditor who in a proactive situation can foresee and make recommendations that would ensure that the organisation does derail (at least not too much) from the predetermined overall goals. Where corporate governance exist effectively, the internal auditor represents the Board in the day to day affairs of the organization, it derives its power from the highest authority (the Board) and also reports to it. The internal auditors response to the question of whether they have the will to carryout their assignments as expected is “yes”, but though they have the wil, they lack the power and the authority to do so.

All the respondents agreed that the effectiveness of the internal audit function is a function of the Management and Board supports as entrenched in corporate governance. Internal audit function thrives better in environments where corporate governance is effective than where it is inexistent or ineffective. If the Executive Management and the Board accord the internal audit function the required supports and importance, it would have the confidence to carryout its assignment, assured that its reports would receive attentions from the appropriate quarters. The internal control function cannot be stronger and more effective than the corporate governance which promotes accountability, regulations and compliance across the various levels of management in the organisation.

**Figure II: Relationship between Internal Audit Function and the Board**



Organisations where CEOs dominate the Board to the extent that the latter’s decisions can be ignored or approval not sought in situations that require it and infractions on the part of the former is unsanctioned, corporate governance is obviously inexistent and internal audit function if it exists would be ineffective as a Board oversight function of the day to day affairs of the organisation. From the *Figure II* above, effective corporate governance is a function of effective internal audit function while effective internal audit function is a function of effective corporate governance. In their contributions and supports for each other, both perform different roles. The BoD assigns responsibility, authority and protection to the internal audit function whereas internal audit function performs oversight function and provides feedback and assurance to the Board that is entrusted with the overall responsibility for ensuring effective corporate governance. The feedback from the internal audit function helps the Board to ascertain and improve on the effectiveness of the corporate governance as well as renew its supports, authority and protection for the latter. In a nutshell, both the Board and the internal audit function oil each other in an effective corporate governance environment for the good of both.

**UNDERSTANDING THE CHALLENGES OF INTERNAL CONTROL FUNCTION IN THE ABSENCE OF (EFFECTIVE) CORPORATE GOVERNANCE**

The presence of corporate governance boosts the morale of internal audit function to perform effectively therefore, its absence poses a challenge to the effectiveness of internal audit function. All the respondents agreed that effective internal audit function is threatened in the absence effective corporate governance, just as it is ineffective for corporate governance to exist where internal audit function is absent, so it is practically impossible for the latter to be effective where the former is either absent or ineffective.

The respondents identified the following as the challenges that could confront internal audit function in an environment that corporate governance is absent or ineffective. First, the independence of internal auditor which is considered essential for objective and impartial execution of his mandate may be threatened. If the appointment and promotion as well as other welfare of the internal auditor are in the custody of other levels of Management other than the apex body, the likelihood of succumbing to Management threats or enticements exists.

Secondly, related to independence is the safety of the internal auditor's job. An internal auditor would be more susceptible to job loss in an environment that lacks corporate governance than where corporate governance is entrenched and operates effectively. The likelihood that internal audit function would bow to CEO's threat is higher than where corporate governance is prevalent.

The third challenge that may hinder the effectiveness of internal audit function in an environment that lacks corporate governance is the lack of cooperation from the auditee – departments who ordinarily are expected to provide required information and documents to the internal auditor. The hostility from the auditee – departments and Management could be instigated or overlooked by the CEO who feels the internal auditor is looking too much into the books. Hostility is suppressed and cooperation is willingly or unwillingly given when the auditees know that internal auditor can seek redress from the Management or the Board

Lastly, inadequate infrastructure and audit tools pose a challenge to effective internal audit function. An organisation that has effective corporate governance would give required infrastructural supports to its internal audit function than the one that does not. While, the latter sees the infrastructures and audit tools as essential aids for effective internal audit function, the former sees it as unnecessary and possibly an attempt to frustrate its control.

**RESULTS OF THE HYPOTHESIS TEST**

R Square	0.999209836
Adjusted R Square	0.997629508
Standard Error	0.464238345
F-test	632.28
Sample Size	92

The observed adjusted R-square implies that the examined variables account for 99.76% of the effectiveness or otherwise of corporate governance on internal audit function. The examined variables bother on attitude and understanding of the internal auditors of the concept and impact of corporate governance on internal audit function.

We reject the hypothesis that corporate governance does not impact on internal audit function as our findings have shown that corporate governance significantly impact on the effectiveness of the internal audit function. The performance of internal audit function is rooted significantly in the organisation's corporate governance. A weak corporate governance system, where the Board is not effectively in charge of the organisation would lead to a weak and an ineffective internal audit function that could be manipulated and ignored by the Management at will.

**CONCLUSION**

Internal control function and corporate governance are both means and instruments for the organisation to achieve accountability, attainment of its overall goal and ensure it operates within regulations. Certainly, corporate governance promotes effective internal control function and where the latter is absent the former cannot but operate ineffectively.

Though corporate governance is not enforceable by law but it is generally accepted as a mean of ensuring efficiency and accountability in any organisation, public or private. We therefore, advise that any organization that is striving to ascend and/ or remain on top of its ladder should embrace corporate governance. It should also support its internal audit function as a mechanism for identifying and managing distractions that could hinder the attainments of its predetermined objectives.

Lastly, in line with Summer (2010 cited by Kramer (2010) internal audit function "must not be afraid to go against the grain and sometimes be a voice of reason and raise unpopular red flags, noting imbalances between risks and controls". Internal audit function is duty bound to uphold professionalism and maximum commitments to its responsibility regardless of the constraints and imbalances in the environments its operates.

**REFERENCES**

- Abu Dhabi Centre for Corporate Governance (2010). The role of internal audit in strengthening corporate governance, IIA Conference, 13 April. <http://iiaadubai.org/pdf/conference/The%20role%20of%20Internal%20audit%20in%20strengthening%20corporate%20governance.pdf>
- Ali-Shah, Syed Zulfigar; Safdar Ali Butt and Arshad Hasan (2009). Corporate Governance and Earnings: An Empirical Evidence from Pakistani Listed Companies. *European Journal of Scientific Research* Vol. 26(4): 624 – 638
- Anderson, D., J.R. Francis and D.J. Stokes. (1993) "Auditing, directorships and the demand for monitoring." *Journal of Accounting and Public Policy*. 12: 353-375
- Armstrong, Anona (2001). Evaluating public sector governance: issues, context and principles. Australasian Evaluation Society International Evaluation Conference, Canberra, October, 8 - 13
- Australian Governance Masters Index Fund Limited, Corporate Governance Charter: 1- 10
- Barac Karin and Marianne van Staden (2009). The correlation between perceived internal audit quality and defined corporate governance soundness, *African Journal of Business Management* Vol.3 (13): 946-958
- Bookal LE (2002). Internal Auditors: Integral to good corporate governance. *Internal Auditor* 59 (4): 44 – 49
- BRC (1999), report and recommendation of the blue ribbon committee on improving the effectiveness of corporate audit committees., Blue Ribbon Committee, New York Stock Exchange and National Association of Securities Dealers, New York, NY
- Broadley, Derek (2006), Auditing and its role in corporate governance, FSI Seminar on Corporate Governance for Banks, Bank for International Settlements

- Capulong, Ma. Virginita, David Edwards, David Webb and Juzhong Zhuang (2000). Corporate governance and finance in East Asia A study of Indonesia, Republic of Korea, Malaysia, Philippines, and Thailand: Volume One (A Consolidated Report). [http://www.adb.org/Documents/Books/Corporate\\_Governance/Vol1/default.asp](http://www.adb.org/Documents/Books/Corporate_Governance/Vol1/default.asp)
- Coram, Paul, Colin Ferguson and Robyn Moroney (2007). The importance of internal audit in fraud detection, Working Paper, University of Melbourne, <http://www.afaanz.org/research/AFAANZ%200642.pdf>
- Gennaro, Mauro Di (2007). The role of internal audit in corporate governance. Case: Fiat Group, International In-house Counsel Journal, Vol.1, No.2, November
- Green S and Gregory HJ (2005). The ripple effect. Internal Auditor 62(1): 48 - 60.
- Institute of Chartered Accountants of New Zealand (2003). Submission to the Securities commission corporate governance principles
- Institute of Internal Auditors (2002). Practice advisory 1110-2: Chief audit executive reporting lines, December.
- Jackson Gregory (2005). Corporate governance update. Corporate Governance: International Review 13(2): 345 - 350
- Jansson, Anders (2005). Improving internal audit in Nigeria Federal Government.
- Julien, Rick and Larry Rieger (2007). Internal audit plays a pivotal role in strengthening corporate governance, Crowe Chizek and Company, [http://folio.crowechizek.com/files/PDF/RPS5027B1A\\_InternalAuditors\\_lo.pdf](http://folio.crowechizek.com/files/PDF/RPS5027B1A_InternalAuditors_lo.pdf)
- KPMG (2004). Internal audit's role in modern corporate governance, [http://www.kpmg.com.sg/publications/ras\\_IntAuditsRole.pdf](http://www.kpmg.com.sg/publications/ras_IntAuditsRole.pdf)
- KPMG (2003). Internal audit's role in modern corporate governance. Thought Leadership Series: 1 - 7
- Miglietta, Angelo, Mario Anaclerio\*, Cristina Bettinelli (2007). Internal audit risk assessment and legal risk: first evidence in the Italian experience. Corporate Ownership & Control / Volume 4, Issue 4, Summer: 50 - 58
- Prasad, V.V.S.K. and T. Venkateswara Rao (2009). Corporate governance-a comparative study of select public sector and private sector companies in India <http://www.articlesbase.com/ethics-articles/corporate-governance-a-comparative-study-of-select-public-sector-and-private-sector-companies-in-india-868495.html>
- Rezaee, Zabihollah; Kingsley O. Olibe and George Minnier (2003). Improving corporate governance: the role of audit committee disclosures, Managerial Auditing Journal 18/6/7: 530-537
- Ribstein, Larry E. (2005). Accountability and Responsibility in Corporate Governance, University of Illinois Legal Working Paper Series
- Spencer Pickett KH (2003). The internal auditing handbook. Second edition. Wiley & Sons. New Jersey: 47 - 59
- Summers, Glenn (2010) cited in Joel Kramer (2010). Biggest internal audit challenges in the next five years. <http://www.proviti.com/en-US/Insights/Featured-Articles/Pages/Biggest-IA-Challenges-Next-Five-Years.aspx>
- University of California, Understanding internal controls: A Reference Guide for Managing University Business Practices: 1 - 19
- Verlag Erich Schmidt (2007), The role of internal audit in corporate governance in Europe: Current status, necessary improvements, future tasks, European confederation of Institutes of Internal Auditing (ECIIA) (Ed.): 39 - 44
- Wells, Jefferson (2009). internal audit From Corporate Policeman to Strategic Partner In GRC Success, Jefferson Wells International, Inc: 1 - 9
- World Bank/International Records Management Trust (2002). Evidence-based governance in the electronic age: case study - financial records systems in Nigeria: 1 - 13
- Wu, Chung-Fern and Sophie H. Tsou (2007). Corporate governance with capability, integrity and accountability of regulators and supervisors: An examination of the Financial Supervisory Commission in Taiwan, Web Journal of Chinese Management Review, 10(2): 1 - 17

## A NEXUS BETWEEN BOP ENTREPRENEURS AND BOP CONSUMERS: A SNAPSHOT FROM BANGLADESH

**KOHINOOR BISWAS**  
**ASST. PROFESSOR**  
**EAST WEST UNIVERSITY**  
**DHAKA**  
**BANGLADESH**

**M SAYEED ALAM**  
**ASST. PROFESSOR**  
**EAST WEST UNIVERSITY**  
**DHAKA**  
**BANGLADESH**

### ABSTRACT

*Poorest of the poor in the developing part of the world is defined as a promising market segment, namely BOP (Bottom of the Pyramid) with a market size of \$ 1.3 trillion. Traditionally, businesses are meant to serve a single bottomline: profit maximization. The new business model proposes that businesses can rather serve the double bottomlines of profit maximizing and poverty alleviation by capitalizing on the untapped potential of BOP consumers. This paper looks into the potential of BOP entrepreneurs in the segment of BOP consumers. The authors attempt to explore the consumption pattern and profile of the two different entities: BOP entrepreneurs and BOP consumers. 30 respondents are chosen from each category and in-depth interviews are conducted. The findings are: BOP entrepreneurs can exploit the untapped potentials of the BOP consumer market which would add to their earning and ease out the poverty condition. On the contrary, the BOP consumers would benefit from better quality and competitive price contributing towards more savings and better consumption.*

### KEYWORDS

BOP, BOP entrepreneurs, BOP consumers, Bangladesh

### INTRODUCTION

Almost four billion people especially those with incomes below \$3,000 (in case of local purchasing power) belong to the base of economic pyramid (BOP). The BOP comprises 72% of the 5,575 million people recorded by national household surveys that are available worldwide and a huge chunk of population in the developing countries of Africa, Asia, Eastern Europe, and Latin America and the Caribbean are home to almost all the BOP.

A huge number of people live in poverty. They fail to meet their demands. In the current U.S. exchanging rate, their incomes are less than \$3.35 a day in Brazil, \$2.11 in China, \$1.89 in Ghana, and \$1.56 in India. Despite all that they have substantial purchasing power as the BOP constitutes of \$5 trillion global consumer market.

The wealthier mid-market population segment - 1.4 billion people with per capita incomes ranging from \$3,000 to \$20,000 comprises a \$12.5 trillion market globally. This market is relatively well served; extremely competitive and mostly urban based; but in contrast, BOP markets are rural based in the growing Asian market. They are poorly served, and dominated by informality. They are relatively inefficient and incompetent at times (Hammond et al., 2007 ;)

In the book *The Fortune at the Bottom of the Pyramid: Eradicating Poverty through Profits*, C.K. Prahalad (2004), introduced double bottomline, by which he brings forth the need of accomplishing social goals with profit maximization. He also makes an attempt to come up with assumptions that consumers with low levels of income could prove to be a profitable segment of consumers. This notion has invigorated entrepreneurs of different regions to keep an eye on the potentiality of serving an un-served market and downsizing the scale of poverty.

In order to prove his assumptions right, Prahalad has cited examples from different corners to show how the business magnets ascending the throne at the top echelon in the global businesses can reverse the fortune of have-nots by empowering the poor and opening a door for them to make a valiant contribution in the coffers of global wealth. He rekindled the imagination of those who dream of seeing this world a better place with equal opportunities for all.

This is an appealing proposition, as Prahalad thinks that low income consumers provide a window of opportunity for the world's wealthiest companies to seek fortune and bring prosperity to the extreme poor dreaming of erasing the misfortune of living in poverty.

Traditionally, marketers regard profit incentive as the prime reason for marketing. Efficiency and profitability are the major concerns of companies concentrating solely on profit incentives. Not surprisingly, western business practices are molded on the "Top of the Pyramid"(TOP) approach for running operations. These businesses require identification, measure, substance, and accessibility for successful operation in the market segment. Thus, Zeithaml (Zeithaml et al., 2001) and her coauthors have showed how companies can use their tried and trusted marketing approaches to maximize efficiency and profitability. The key is to serve those customers most likely to generate profits. As a matter of fact, companies with limited resources should concentrate on their efforts of squeezing out maximum return. They demonstrate the value at the top of the pyramid (TOP) and shared strategies for serving those customers and also discouraged those companies from "firing" the lower-money-losing tiers. According to (Dennis A. Pitta, Rodrigo Guesalaga and Pablo Marshall, 2008), the customer pyramid approach is one of the best grounds to survive for profit seeking companies in the competitive market.

From the perspective of society, there are distinctive features between a market-based approach and the traditional approach. Traditional approaches help the poor out through charity and public assistance. Reducing poverty is one of their major aims. In contrast, a market-based approach indulges in commerce and market process instead of serving the poor. As a result of that all poor households are made to exchange cash or labor to meet a significant part of their basic needs. The latter approach is the ideal one for profit oriented companies which have embraced to pursue the BOP initiative (Dennis A. Pitta, Rodrigo Guesalaga and Pablo Marshall, 2008).

There are differences between business realities and development imperatives which are difficult to reconcile. Some recent case study works show how the early premise of capitalism is bearing no fruit. During the enlightenment period, capitalism set its journey with a notion of free trade which encapsulated unwarranted business growth, profit maximization and poverty eradication. Instead of providing equal opportunities for all, capitalism has created a huge gulf between the haves and have-nots, as it is seen that those who have all the money in the world have enjoyed power over those who have almost nothing to do anything on their own. (McFalls, 2007). Second, the traditional timelines for achieving social goods and earning profits differ (Harjula, 2005).

A key issue in understanding BOP markets is the informal economy. The International Labour Organisation (ILO 2002) estimates that almost 70% or more workforces in developing countries operate in the informal or underground economy. This ratio suggests that the most BOP livelihoods come from self employments and small business enterprises. This informal economy halves the total formal economy size. According to a detailed study by economist Friedrich Schneider (2005), the informal economy averages 30% of official GDP in Asia, 40% in Eastern Europe, and 43% in both Africa and Latin America and the rest in the Caribbean. Informality offers the option of potential growth for small and micro-financed businesses. Another important source of income for many BOP households is remittances they receive from family members working overseas. Informal money transferring channels are the feasible ways of money transference. (Hammond et al., 2007;)

The concept of informal sector was originated in the early 1970s and has gained widespread attention all around the world. This term is used for various purposes and has multilayered meanings (Source: Employment in the informal economy in the Republic of Moldova, ILO Bureau of Statistics in collaboration with the Department for Statistics and Sociology of the Republic of Moldova, Working Paper No. 41, December 2004). According to *The Dualists* (schools of thought on informal economy) school of thought though the informal economy is separated and marginalized it provides the safety net for the poor (ILO 1972). According to Swedish International Development Cooperation agency (SIDA) report (2004), the informal economy has three segments, these are :

A. *“Enterprises with the potential of becoming a significant contributor to the national economy and that take up informal economic activities because of their potential for generating growth or wealth. What attracts some is the fact that informal activities are thought to be unregulated and untaxed and, therefore, to have the potential for autonomy and profits.” (ILO, Supporting workers in the IE: a Policy Framework, 2002) These enterprises can be linked to organized and emerging national or international markets”.*

B *“ Individuals or households who take up informal activities for survival purposes. The factors that may attract them are the relative ease of entry, reliance on local resources and a minimum of capital investments. Informal activities also allow disadvantaged individuals or households to maximise their only asset: labour. This group operates informally either because the costs of formalising the activities are too high or because the procedures for registration are too complicated and time-consuming”*

C. *“Individuals that devote part-time to informal activities while working elsewhere. For instance, civil servants in both Asia and Africa, because of low and irregular salaries, have alternative incomes to secure their living”.*

The segments B is mainly involved in informal marketing. It also grooms up potential entrepreneurs, in other words BOP entrepreneurs. According to the definition of the informal economy, BOP entrepreneurs are not enlisted under the category of formal economy. They are characterized by negativities: tax evasions, unregulated enterprises, illegal or even criminal activities (Horn, 2002).

Hammond, A. L., W. J. Kramer, R. S. Katz, J. T. Tran and C. Walker (2007), identify three significant facts : the BOP market size, where is the Market and what does the BOP buy in the report, *The Next 4 Billion – Market Size and Business Strategy at the Base of the Pyramid* (World Resources Institute, Washington, DC)

#### **BOP MARKET SIZE**

Asia has the largest BOP market size that hovers around 2.86 billion people in 19 countries, with an aggregate income of \$3.47 trillion . The BOP market in these countries represents 83% of the region’s population and 42% of its total purchasing power—a significant share of Asia’s rapidly growing consumer market. Eastern Europe’s \$458 billion BOP market includes 254 million people in 28 surveyed countries, 64% of the region’s population, with 36% of the region’s aggregate income. In Russia, the region’s largest economy, the BOP market includes 86 million people and \$164 billion in income. In Latin America the BOP market of \$509 billion includes 360 million people, 70% of the population in the 21 countries surveyed. The BOP market accounts for 28% of the region’s aggregate household income, a smaller share than in other developing regions. In both Brazil and Mexico the BOP constitutes 75% of the population, representing aggregate income of \$172 billion and \$105 billion.

#### **WHERE IS THE MARKET?**

Urban areas dominate the BOP markets for water, ICT, and housing in all regions. BOP markets for transportation and energy are also heavily urban in western countries and rural in Asia and Africa. For food and health care, rural BOP markets are larger in most countries of Africa and Asia, and urban BOP markets are larger in most countries of Eastern Europe and Latin America.

#### **WHAT DOES THE BOP BUY?**

The survey figures record interesting patterns in the BOP households buying pattern. In health care, for example, more than half of BOP spending goes to pharmaceuticals. For ICT, phone service dominates its recorded expenditures. Many BOP households don’t pay cash for water. In Africa surface water is the primary source of 17% of BOP households, and unprotected wells are used as accessories for the source of water in that region. Access to electricity is virtually universal in Eastern Europe but high among BOP households in Asia and Latin America, and quite low in Africa. In all regions except the Eastern Europe, firewood is the dominant cooking option among lower BOP income segments, while propane or other modern fuels are dominant among higher BOP income segments and in urban areas.

#### **OBJECTIVE OF THIS STUDY**

The objectives of this study are as per following:

- a. to map demographic profile of both BOP entrepreneurs and BOP consumers.
- b. to explore the consumption pattern of the two groups and

- c. to find out the logical nexus between the potentials of BOP entrepreneurs and BOP consumers.

### RESEARCH METHODOLOGY

This research is conducted on two separate groups. One group is BOP food entrepreneurs involved in informal marketing and another is BOP consumers. 30 respondents are chosen from each group and then in-depth interviews are conducted alongside structured questionnaires are dispensed in order to collect the opinion from both groups.

### RESEARCH FINDINGS:

#### PROFILE OF BOP ENTREPRENEURS (INFORMAL SECTOR)

The respondent of this study are mostly in business for more than five years. Most of them started business in between 20 to 30 years of age. More than fifty percent of the respondents are married; the major profession that their fathers served was either business in informal sector or in blue color jobs. The main motivation to start a business is absence of employment. Personal loan is the main source of starting capital to start business in this sector. They buy merchandise mostly from the wholesaler; customer's payments are made both in cash and credit. Majority of the traders have mixed reaction about the condition of their business. The details descriptive statistics are shown in the table -1.

**TABLE: 1 DESCRIPTIVE STATISTICS (BOP ENTREPRENEURS)**

Variables	Frequencies	Percentage
<b>A. Year in business</b>		
• < 5 years	12	40
• 5< business length < 10	11	36.7
• >10 years	7	23.3
<b>B. Age when start the business</b>		
• Less than 20 years	8	26.7
• more than 20 but less than 30 years	17	56.7
• more than 30 years	5	16.7
<b>C. Marital Status</b>		
• Single	14	46.7
• Married	16	53.3
<b>D. Father's Occupation</b>		
• Self employed	16	53.3
• Not fixed	12	40.0
• Others	2	6.6
<b>E. Motivation to start the business</b>		
• To become independent	10	33.3
• because of unemployed	17	56.7
• Other	3	10.0
<b>F. Source of Capital</b>		
• Loan from others	11	36.7
• Personal savings	12	40.0
• Parents	7	23.3
<b>G. Source of merchandise</b>		
• Whole seller	20	66.7
• Retailer	10	33.3
<b>H. Customer payment method</b>		
• Credit payment	13	43.3
• Cash payment	17	56.7
<b>I. Present Business performance</b>		
• Not happy	6	20.0
• Average	14	46.7
• Good to very good	10	33.3
<b>Business status after five years</b>		
• Expansion	2	6.7
• No Change/ No Idea	22	73.3
• Out of business	6	20.0

#### PROFILE OF BOP CONSUMERS

The average age of the respondents group is 35 years. No. of dependent is average 4-5 and mostly have no education and maximum education is found to be primary school graduation. Average monthly income is \$ 40-\$65. The nature of job is manual; examples are Rickshapuller , security guard, domestic worker- all of them are unskilled job. Most of the respondents are not satisfied with their present job. The findings from the in-depth study are presented in table -2.

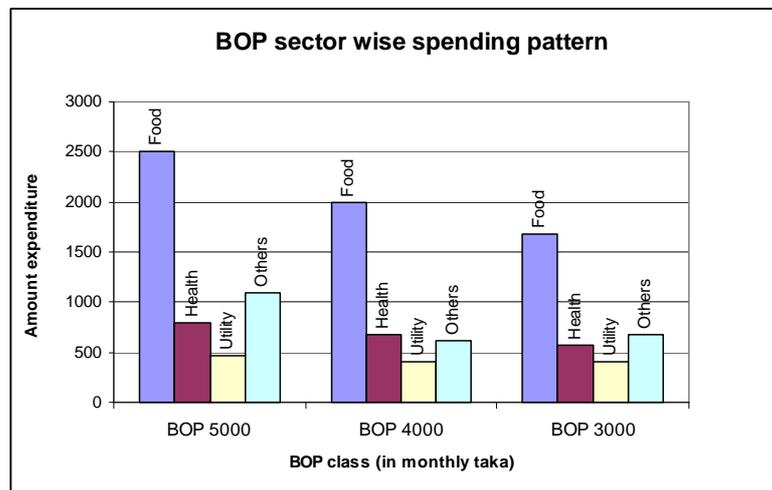
TABLE:-2 BOP CONSUMERS PROFILE

Variables	Result
Average age	35
Number of dependent	Average 5
Education	No schooling to School pass
Income starts	Mostly at the age of 12-14
Present monthly income	3000- 5000 taka per month \$ 43.16-\$71.94 ( 69.5 taka = 1 us dollar) Daily \$ 1.43 to \$2.39
Credit amount /month	1000-1500 taka (\$14.38-\$21.58), no extra cash is available to meet the food and non food expenditure even for a month
Nature of job	Rickshapuller , Security guard, domestic worker all of them are in unskilled job
Father's profession	Most of them are in agriculture sector
Status of satisfaction from the present employment	All of the interviewee are very dissatisfied

### SPENDING PATTERN OF BOP CONSUMERS

The sample respondents are divided in to three segments (based on monthly income as 3000 taka, 4000 taka and 5000 taka per month), these are labeled as BOP 3000, BOP 4000 and BOP 5000. BOP consumers spend most in the food sector (including water), followed by health sector. The next two important sectors are utility (energy and transportation) and others (meet unforeseen demand). These findings are shown in figure 1

FIGURE: SECTOR WISE EXPENDITURE PATTERN OF BOP CONSUMERS



### CONCLUSION

The double bottomline objectives of business; a merger between business goal and social goal has left some promising imprints by MNCs. As C K Prahalad points out the role of government, NGOs and financiers in increasing the purchasing power of the BOP consumers, establishing better distribution and communication system, it is imperative in Bangladesh perspective as well.

Literature reports that one of the bottlenecks for big or medium sized companies to reach out the needs and wants of BOP consumers is huge cost structure, leading to low LCV (lifetime customer value) of this segment that renders it unappealing. BOP entrepreneurs target low markups as their capital involvement is very low. Traditionally, in Bangladesh, BOP consumer segment has been served by the BOP entrepreneurs. Given, their substantial contribution to the GDP and growth, they deserve strategic policy support in order to increase their income and thereby more purchasing power leading to escalation towards prosperity out of poverty trap. For the BOP consumers, growth of BOP entrepreneurs would mean products and service available at better quality and competitive price; that would contribute to better savings, better consumption or better quality of life.

### REFERENCES

- Dennis A. Pitta, Rodrigo Guesalaga and Pablo Marshall, (2008), "The quest for the fortune at the bottom of the pyramid: potential and challenges" Journal of Consumer Marketing 25/7 393-401
- Hammond, A. L., W. J. Kramer, R. S. Katz, J. T. Tran and C. Walker: 2007, *The Next 4 Billion – Market Size and Business Strategy at the Base of the Pyramid* (World Resources Institute, Washington, DC).
- Horn, P. et al., (2002) *The Informal: The Informal Sector in Sub-Saharan Africa*, South Africa, Trade Union Research project, ILO
- Harjula, L. (2005), "Tensions between venture capitalists' and business-social entrepreneurs' goals: will bottom-of-the pyramid strategies offer a solution?", *Greener Management International*, Vol. 51, pp. 79-87.
- McFalls, R. (2007), "Testing the limits of 'inclusive capitalism': a case study of the South Africa HP i-Community", *The Journal of Corporate Citizenship*, Vol. 28, Summer, pp. 85-98.

Prahalad, C.K. and Hart, S.L. (2002), *"The fortune at the bottom of the pyramid"*, Strategy and Business, Vol. 26, January, pp. 54-67.

Prahalad, C.K. (2004), *The Fortune at the Bottom of the Pyramid: Eradicating Poverty through Profits*, Wharton School Publishing, Upper Saddle River, NJ.

Sridharan Srinivas, Viswanathan Madhu, (2008) *"Marketing in subsistence marketplaces: consumption and entrepreneurship in a South Indian context"* Journal of Consumer Marketing 25/7 455-462

Zeithaml, V.A., Rust, R.T. and Lemon, K. (2001), *"The customer pyramid: creating and serving profitable customers"*, California Management Review, Vol. 43 No. 4, Summer, pp. 118-34.

## KAIZEN IN THE INDIAN CONTEXT- A CASE STUDY

TUSHAR N. DESAI

FOUNDER CHAIRMAN, INDIAN INSTITUTION OF INDUSTRIAL ENGINEERING, SURAT CHAPTER  
ASSOCIATE PROFESSOR, MECHANICAL ENGINEERING DEPARTMENT  
S. V. NATIONAL INSTITUTE OF TECHNOLOGY  
SURAT – 395 007

N. K. KESHAVA PRASANNA

VICE PRESIDENT  
RELIANCE INDUSTRIES LTD., HAZIRA  
SURAT- 394 510

### ABSTRACT

Quality has become a prerequisite for success of any organization. It is being increasingly recognized that a high quality of products and services and their associated customer satisfaction are the key to survival for any enterprise. Quality consciousness of the customer and competitors has forced the manufacturers and service providers to search for more and more effective ways to achieve quality as defined by ultimate end users. In today's turbulent and market driven economy, only those companies will survive who will adopt such practices, programs or methods which help in considerable and continuous improvement in products and services offered by them. Total Quality Management (TQM) is widely accepted philosophy for achieving continuous quality improvements in all aspects of business. Kaizen, a philosophy, a strategy, a programme & an inherent part of the TQM process, helps to improve quality of goods & services of an organization. Continuous improvement (or Kaizen) is the philosophy of continually seeking ways to improve operations. It transforms the drive towards quality into a never – ending journey. Kaizen means improvement & ongoing – continuous & never ending improvement involving everyone in work life. This has been one of the key concepts in success of Japanese industries. Kaizen is built on the premise that the knowledge of how to improve the workplace should come from the workplace itself and not to be imposed from outside. This paper illustrates the concept, principles of kaizen with a structured approach for its implementation. This paper also presents an insight into the kaizen system in a large Petrochemical plant based at Surat, Gujarat, India. Areas for improvement of the system in this organization are also presented which helps to continuously improve quality and productivity of work processes of the organization and thereby helping the organization in setting and reaching higher and higher standards of performance.

### KEYWORDS

Kaizen, TQM, Petrochemical Unit, Kaizen Implementation

### INTRODUCTION

 Quality is one of the key attributes to a product or service that is used by customers to gauge organizations, in this present day of competitiveness. Many organizations worldwide constantly work towards improving quality, reducing unnecessary processes, involving all employees within the organization towards meeting the business objectives. These activities are being managed through various concepts with few aiming at major changes while others at small and continual improvements. One such popular concept is Kaizen. Kaizen is about making small improvements. In a growing economy many companies grow looking at big quantum changes. However, during lean market conditions many organizations look at small changes that can result in eliminating unnecessary processes, changes that can save cost, improve quality etc. Whether organizations look at big quantum or small changes, Kaizen, yields good results if implemented properly. Apart from the small continual improvements, Kaizen results into more employee participation and motivation.

Japanese companies have benefited to a great extent from this concept. Looking at this success many companies worldwide have adopted the same. Companies like Aarti Drugs Ltd, Andhra Petrochemicals Ltd, Assam Company India Ltd., Bhansali Engineering Polymers Ltd., Bongaigaon Refinery & Petrochemicals Ltd., Cairn India Ltd, Castrol India Limited, Chemcel Biotech Ltd, Chemplast Sanmar Ltd, Deepak Fertilizers & Petrochemicals Corporation. Ltd, Duke Offshore Ltd, Essar Oil Limited, GAIL (India) Limited, Hindustan Petroleum Corporation Limited, Hingir Rampur Coal Company Ltd, Indian Oil Corporation Limited, Indian Petrochemicals Corpn. Ltd, Indraprastha Gas Limited, Kesoram Industries Ltd, Manali Petrochemical Ltd, Mangalore Refinery & Petrochemicals Ltd., Marathwada Refractories Ltd., Multibase India Ltd, Nu Tek India Ltd, Oil and Natural Gas Corporation Limited, Oil India Limited, Rama Petrochemicals Ltd, Refex Refrigerants Ltd, Reliance Industries Limited, Sen Pet (India) Ltd, Shri Shakti LPG Ltd., South Asian Petrochem Ltd, SPL Polymers Ltd, Supreme Petrochem Ltd, SVC Superchem Ltd, Tamilnadu Petroproducts Ltd, Tide Water Oil Company (India) Ltd., Triveni Glass Ltd., UUnimers India Ltd, VVision Organics Ltd. to name a few, in India have adopted this concept; employees are encouraged to participate.

### TOTAL QUALITY MANAGEMENT

TQM is integration of all functions, processes and personnel with an organization in order to achieve continuous improvement of quality services to meet the needs and expectations of customers. TQM is about efficiency, productivity, long term success and adopting an attitude that all individuals can contribute to the pursuit of continuous improvement. It is about driving out fear, breaking down barriers and encouraging people to educate or develop themselves to work in teams, to think for themselves and believe that things can be continuously improved. Everyone in the organization needs to believe in quality to contribute towards it by constantly improving standards.

### KAIZEN (CONTINUOUS IMPROVEMENT)

Kaizen is a Japanese word. Kai means “to change or modify” and Zen means “to improve or make better” and together they mean continuous improvement & it means continuous, gradual and orderly improvements. Kaizen, the core concept of TQM, is a short term, cost effective and

result oriented technique, which helps to identify root causes of inefficient working and offer systematic approach to change the attitude of people, to eliminate causes of problems in the process, leading to improvement in quality of output and to miraculous organizational changes. Kaizen signifies step by step, gradual, large number of continuous improvements, no matter how small, which should be taking place all the time, in every process involving everyone from management to workers. In contrast to seeking improvement through radical technological change (i.e. break through improvement), Kaizen focuses on small, gradual and frequent improvements over the long run (Seth and Rastogi, 2004 ).

**Principles of Kaizen:** Kaizen implementation operates on the following principles:-

1. Human resources are company's most important assets. In the core of the system lies the fact that the best person to suggest improvement is the man on ground.
2. Success cannot be achieved by some occasional radical changes alone, but by incremental yet consistently arriving improvements.
3. Improvements must be based on a statistical or quantitative study of the performance of process.

**Concept of Kaizen:** Any activity directed towards improvements falls under the **Kaizen umbrella**. Activities to institute employee suggestion schemes, zero defects programme, CWQC, JIT, installing robotics and advanced technology – all leads to improvement & serve to enhance the quality of the firm( **Fig.1** ).Everybody deserves to and should be willing to improve himself/herself for the better continually.

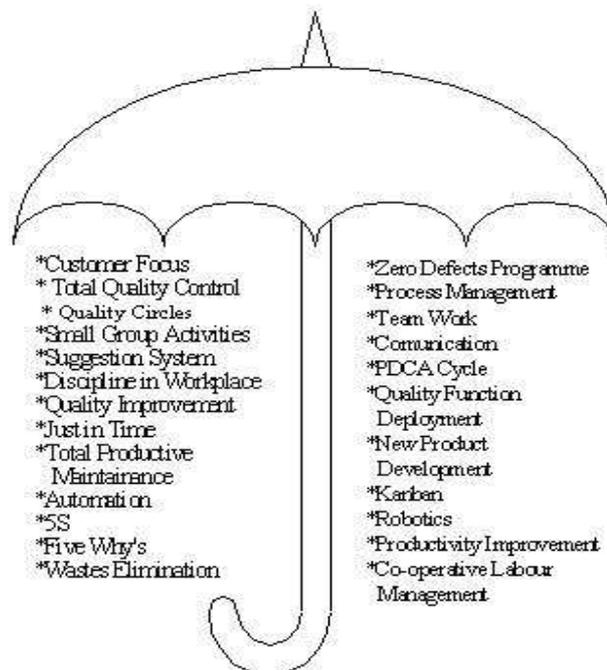


Fig. 1: A Kaizen Umbrella [ 3 ]

**THE KAIZEN PROCESS:** Kaizen process provides a disciplined & analytical approach to problem solving. Kaizen puts its emphasis on process-oriented way of thinking & management system that supports & acknowledges peoples' process-orientated efforts for improvement. The kaizen process is built on PDCA cycle & consists of seven basic steps ( **Fig.2** ), which allows any individual or team to solve problems scientifically, rationally & effectively.

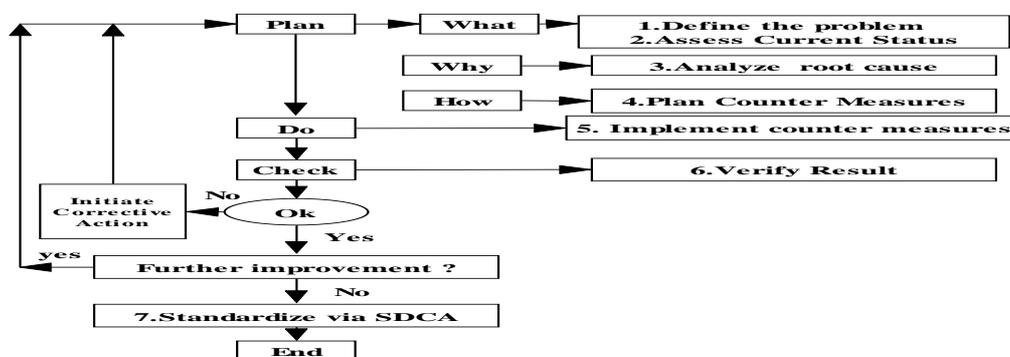
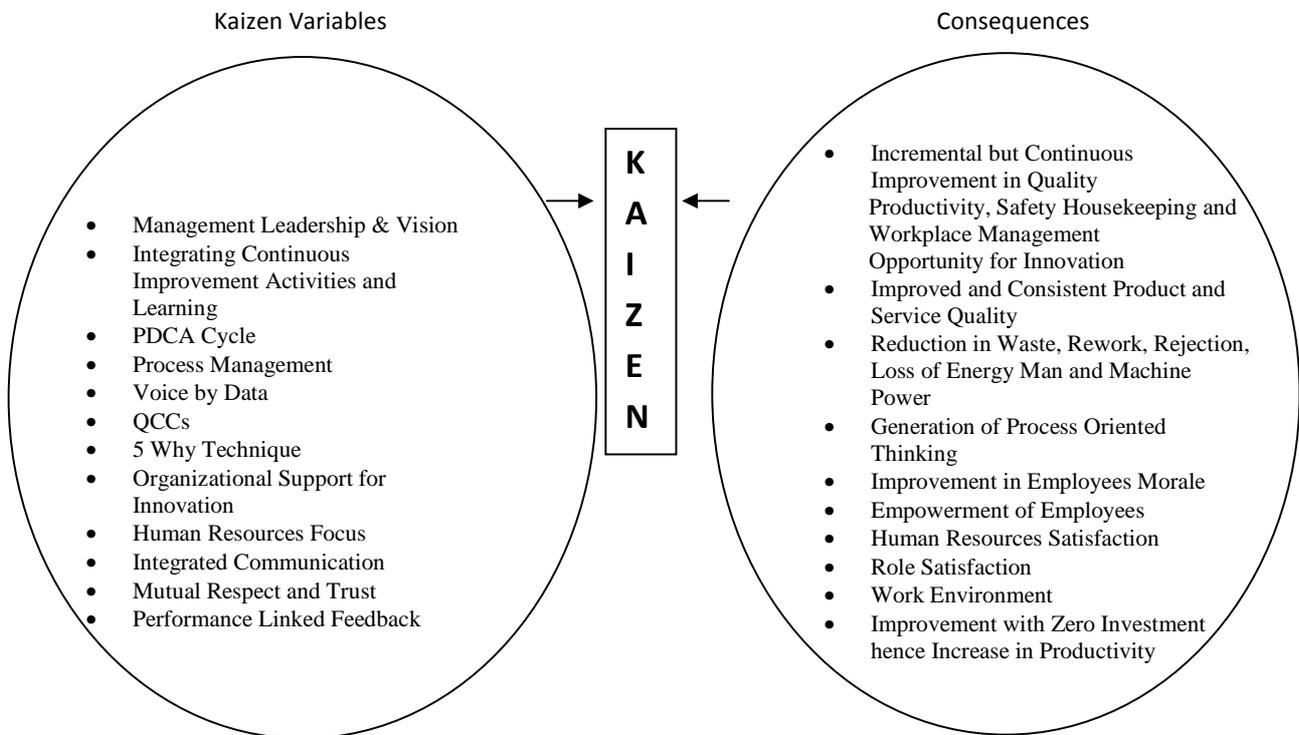


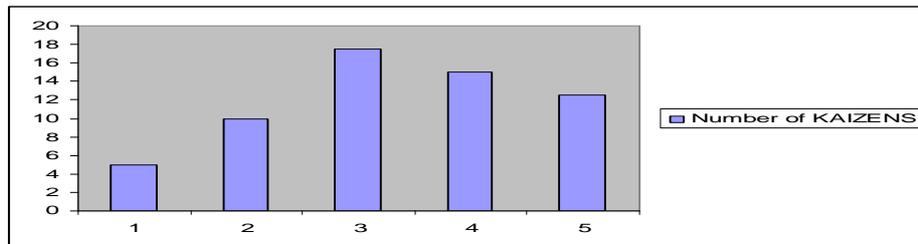
Fig. 2: Pictorial Form of Kaizen Process [ 4 ]

**Kaizen Variables & Organizational Performance:** - The relationship of Kaizen variables & its positive consequences on the organizational performance is presented in Fig 3.



**Fig 3: Kaizen Variables & its Consequences on Organizational Performance [ 3 ]**

**Kaizen Track Record:** - The organization can maintain kaizen track record as shown in Fig 4. The company can analyze their Kaizen movement from number of Kaizens per man –year. The Kaizen rate per man year may go up & then fall. Every company concentrates on quality in the first few years, so the number of kaizens initially always shows an uptrend then the number of kaizens falls as a result, before it stabilizes. That is quite normal.



**Fig 4: KAIZEN Track Record**

**Few aspects of a Kaizen system:** Few aspects of Kaizen concepts/practices are presented:

**(a) Employee participation**

The most important aim of Kaizen movement is employee participation. This is based on the philosophy that employees working in a function know the problems associated with their work and can solve their problems and generate creative proposals.

**(b) Characteristics of a Kaizen system**

If a Kaizen system has to bring positive results, it must have the following three characteristics:

1. Must be a compelling force: The ultimate compelling force is the attitude of the company’s senior managers. Any corporate activity depends on guidance and support from senior management, for survival. Another compelling factor is associated with the administrative structure. Managers are in-charge of departments, and they should be responsible as well for any activity that improves the management of business.
2. Must create motivation and incentives: Although creating a compelling top-down appeal is the fastest and most immediately effective way to promote improvement activity, a genuine kaizen movement requires more than that. Mistakes can be costly, because each mistake takes away employee interest. If managers exert force on employees, using quotas and other means for leverage, they may achieve an effect opposite to the one intended. While compelling force is useful in the initial stages before the improvement proposal movement picks up speed, educating the employees why they are doing the activities will help them stay motivated. If the intention is to create a system that looks good to company managers, employees may not take the system seriously.

3. Must be educational and must be instrumental in developing skills: A movement based only on willingness to participate has obvious limitations. With participation as the only criterion, it would be easy to give high marks to superficial and temporary measures that are not improvements in the real sense of the word.

**(c) Introducing and developing a suitable system**

Reward schemes differ from organization to organization. Some companies pay good amounts for a proposal received, while others pay a small amount. Some companies request ideas that can bring about big quantum changes, while other companies expect a series of small personal and innovative ideas.

Some companies form evaluation committees consisting of people in key positions. The managers who are responsible for specific areas decide whether to accept a proposal and determine the amount of reward.

Whatever the purpose of a system, success depends on whether the means to achieve that purpose is suitable for the purpose. If a system is in place, but gets no results, it is often because the purpose of the proposal system does not correspond with the system that is used.

**(d) Implementation of Kaizens**

When a company establishes a proposal system in which the problems of one department are open territory to the people of another department, suggestions are apt to pour in from every quarter. Soon the company is overwhelmed with suggestions, finding it difficult to implement the suggestions. Some projects would cost a lot of money to carry out. If it is a major proposal, it often involves some risk and a lengthy implementation process. Certainly, the implementation of such projects is much more time-consuming and labor intensive than the act of making the proposal.

That is why people who are busy trying to do their jobs postpone indefinitely the implementation of suggestions from other departments. If this is the reaction to a proposal that is sincerely meant, surely it is better for employees to concentrate on their own work and stop wasting their time making unappreciated suggestions.

So it is important that an organization decide upon the area within which Kaizens can be generated by employees.

**(e) Personnel for implementation of Kaizens**

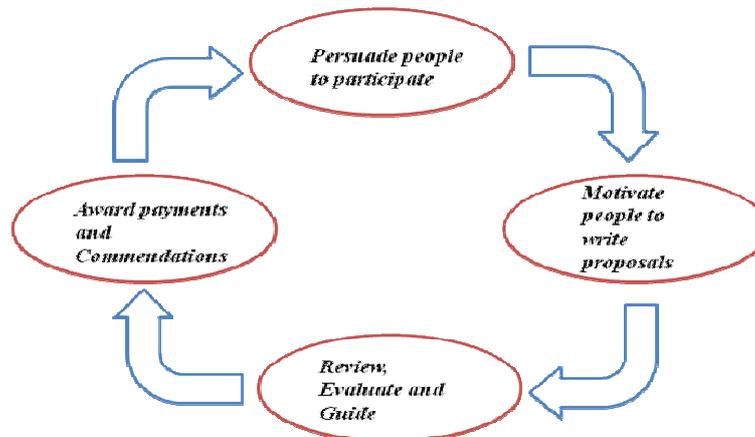
Many companies encourage the proposer actually implement the Kaizen. It was observed that the number of suggestions go up.

**(f) Skills and Abilities**

The more experienced one is in the area relevant to the proposal; the better is the chances for seeing that proposal realized. Improvements are usually proposed by people who have mastered the area needing improvement. A good proposal presumes the skills and experience of its author. Employees must cultivate their skills and abilities if they want to be able to implement their own ideas. In this respect, improvement activity can also be regarded as development of abilities.

**(g) Trends and Key points of the Kaizen cycle**

Kaizen proposal activity represents a cycle with four major components (Fig. 5)



**Fig 5: Kaizen Cycle**

Smooth flow of the cycle has to be ensured for effective implementation and running of the system. Even if a system is already developed there can be problems. It is essential to analyze the reasons for obstruction and initiate corrective actions.

**(h) Influencing proposal activities**

**Push strategy:** The push strategy includes methods of influencing people from outside, nudging them in the desired direction of proposal activity. Some of these methods are soft and subtle, some are forceful and convincing. Methods that use compelling measures, quotas, and targets will get positive results quickly, at least in the short term. They are definitely necessary in the initial period, until desired working habits have been established. Campaigns and events, on the other hand, represent more subtle methods, a "soft" push.

**Pull strategy:** This typically involves encouragement or incentive offered by one person to another or an employee getting a colleague involved in the activities. One tool that can be used in this strategy is payment of bonus awards. Even if the awards are modest, it is better to have some payments than none at all. Proposal activity based on continuous improvement uses bonus awards as one component that makes the pull strategy more attractive. The award represents recognition of a person's ideas. The other important pull components of the proposal activity are review, evaluation, guidance, and most of all, assistance with implementation. This combination of methods represents a powerful force that is instrumental in getting everybody involved.

**(i) Review and guidance**

The biggest stumbling blocks in the proposal cycle lie in the area of review, evaluation, and guidance. When people submit their ideas for evaluation and never hear back from the examiners, they may feel dejected and frustrated. When the review, evaluation, and guidance aspect

of the system functions properly, it can be a great motivating force. This force is more effective than money awards or campaign appeals from management to come up with proposals.

**CASE STUDY OF KAIZEN IMPLEMENTATION**

**(a) Background**

A large petrochemical firm, eager to implement quality improvement systems decided to implement Kaizen system. This was introduced along with few other Japanese quality systems. This system has been in place for the past seven years. These systems were brought into practice only after the organization operated without systems like these in place for more than a decade.

This petrochemical firm typically consisted of departments like operations, services, administration, technical, stores etc. Hierarchy of personnel, for a department, ranges from senior managers, managers, executives and technicians **Fig.6**. The role of senior management is typically administration, while that for managers is a combination of administration and shop floor work. The role of executives and technicians is typically shop floor work.



**Fig 6: Hierarchy in Service Department**

**(b) Highlights of Kaizen system**

In the initial years of implementation, the response to this system was Luke warm. To encourage participation of all employees various training sessions were conducted. However, the response didn't get better. So the management issued a guideline on the number of Kaizens that an employee should generate in a year. A computerized system was developed to enter a suggestion that is subsequently evaluated. Kaizens can either be given by an individual or by a team. A committee, consisting of top brass personnel, was put in place, to evaluate Kaizens within a given timeframe. A methodology to evaluate a Kaizen was developed with the key parameters for evaluation being:

- a. The areas of focus – Reliability improvement, Safety improvement, Quality improvement, Process simplification
- b. The cost of implementation
- c. The returns upon implementation of Kaizen – Tangible, intangible, recurring benefits, one-time benefit
- d. The cadre of the personnel generating Kaizen, with lower cadres being given a higher weightage
- e. The complexity of analysis needed to arrive at that Kaizen
- f. The degree of innovativeness involved in the Kaizen
- g. Feasibility for implementation

Kaizen received is evaluated in terms of the above and marks are assigned against each criterion. Later on the net score is calculated. For implementable Kaizens, necessary actions are initiated. Kaizens that are not feasible for implementation are rejected. For all those Kaizens that are accepted, the employee is monetarily awarded based on the score. This methodology is same for all employees irrespective of departments.

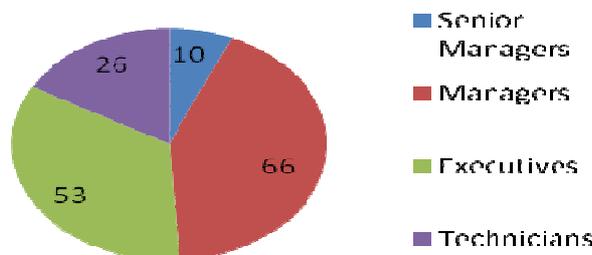
**(c) Data collection and compilation**

The case study presented below is based on the Kaizens received from employees from the service department. Total number of employees in this service department is One Hundred and Fifty Five.

- Technicians – 26
- Executives – 53
- Managers - 66
- Senior managers – 10

The number of Kaizens generated in one year is 576.

Manpower distribution in service department is shown in fig. 7



**Fig 7: Manpower distribution in service department**

Analysis of the trends associated with Kaizens indicated the following:

1. Number of Kaizens generated by contractor staff was 0
2. 56 Kaizens were generated by Technicians.
3. 179 Kaizens were generated by Executives.
4. 335 Kaizens were generated by Managers.
5. 6 Kaizens were generated by Top managers
6. 125 Kaizens were from areas other than individual's area of work.
7. 451 Kaizens were from areas within individual's area of work.
8. 336 were ones with low cost for implementation (Cost of implementation < Rs. 5000/-).
9. 213 were the ones with medium cost of implementation (Rs. 5000/- to Rs. 20,000/-).
10. 27 were the ones with high cost of implementation (> Rs. 20,000/-).
11. 305 were the ones with low returns (<Rs. 20,000).
12. 226 were the ones with medium returns (Rs. 20,000 to Rs. 1,00,000/-).
13. 45 were the ones with high returns (>Rs. 1,00,000/-).
14. 61 Kaizens were proactive in nature.
15. 515 Kaizens were reactive in nature.
16. 26 Kaizens were the ones received from personnel in Administrative role.
17. 548 Kaizens were the ones received from front line employees (shop floor personnel).
18. 228 Kaizens were generated for the same discipline.
19. 348 Kaizens were generated for a different discipline.
20. Number of Kaizens per employee is 5.0 (as per guidelines prevailing in the organization), while the average is 3.72.
21. The contributions made are not from every employee, but the average is due generation of more than 5 Kaizens by certain employees.
22. Most of the Kaizens arose out of the activity a person undertook during a repair work. The activity is non-repetitive, not standardized later on, nor in any way do helps resolve a similar problem. These were basically a documentation of an individual's response to a breakdown.
23. The content of many Kaizens simply reiterate an already well established engineering principle or practice, but were cited through an example.
24. Most of the cross-functional Kaizens (i.e. Kaizens for the target department) were basically system related. Systems were developed by departments without consulting the user departments.
25. 365 (63%) of the Kaizens await implementation, even though they can be implemented.
26. There is no system in place to link up Kaizens (those that can be implemented only during annual shutdowns) to the actual shutdown planning process. Many opportunities were missed.

Figure 8 presents comparative data for various cadres of employees.

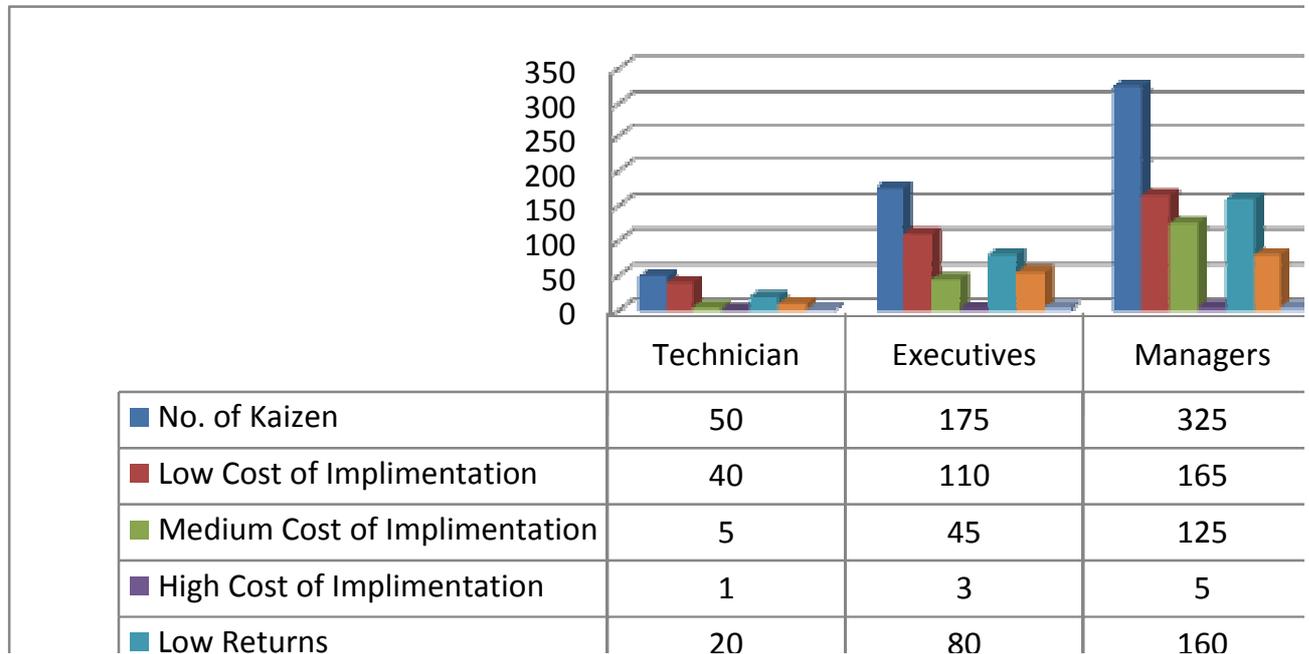


Fig 8: Comparative data for various cadres of employees

**(d) Discussion**

*On Kaizens received:*

From the above the following are evident:

- 9.72% of Kaizens were received from 16.7% of employees (Technicians).
- 31.08% of Kaizens were received from 34.2% of employees (Executives).
- 58.16% of Kaizens were received from 42.6% of employees (Managers).

- 1.04% of Kaizens were received from 6.5% of employees (Senior managers)
1. The number of Kaizens per employee is the highest in the Manager group (5.08) and the least in the senior manager group (0.6). This is probably due to the following reasons:
    - Effect of nature of work on the ability to generate a Kaizen
    - Acquaintance with shop floor
    - Understanding of Kaizen system
    - Work pressures
    - Associated mind set
    - Inadequate training programs
  2. More number of Kaizens was given in areas that were not within the line function of an individual. Most of these were out of a casual observation in other areas or were about systems developed by other departments. This probably is out of improper functional knowledge of employees or due to a rush to meet the targets or due to any inhibitions arising out of analyzing one's own functional area.
  3. Majority of the Kaizens were of the low cost of implementation type. This was not the outcome of a rigorous analysis to search for low cost solutions but were due to :
    - Improper concept of employees about Kaizen
    - Incapacity to evaluate the actual cost
    - Out of a reservation that the management would not appreciate Kaizens associated with high cost of implementation (even when the returns were good)
    - Inadequate knowledge of employees regarding concept of Kaizen
- Medium cost Kaizens were better worked out. High cost of implementation Kaizens were the ones that were associated with reliability, debottlenecking.
4. 10.6% of the Kaizens were generated in a proactive manner i.e. an improvement has been visualized, and suggestion towards improvement had been thoroughly analyzed and the solution derived. The rest of the Kaizens were reactive in nature implying that the solution had been developed after a failure occurred. Most of such Kaizens were based on repair activity that an individual adopted during trouble shooting or repairing a component, and these Kaizens didn't reflect the philosophy of Kaizen in a true sense, and they never aimed at any improvements. This is probably due to
    - Inadequate understanding of employees about Kaizen
    - Compulsion to meet the target
  5. Many employees generated Kaizens as a group, and of a low quality (in terms of the returns, content of Kaizen) suggesting a very marginal level of involvement into this scheme and is probably due to
    - Inadequate knowledge of a function
    - Compulsion to meet the targets
    - Ambitious in-charges eager to demonstrate their commitment by ensuring that their team achieves target
    - Inadequate awards and commendations system in place
    - Bias in evaluation of Kaizen thereby taking away the employee enthusiasm
    - Inadequate level of motivation generated by the senior management
  6. 63% of suggestions await implementation even after 365 days after acceptance of the Kaizen. Employees get greatly motivated when they see their Kaizens get implemented. It also speaks a lot on the commitment of management towards implementing and conducting the system of Kaizen. At present there is no effective system in place, to monitor the implementation of a Kaizen. This can be very demotivating factor.

*On Kaizen system adopted by the organization:*

The practice adopted by this organization in implementing and continuing the Kaizen system is identified here.

**(e) Rewarding**

The organization has a rewarding system that grades Kaizens in terms of the efforts put in and the results obtained. For higher and medium effectiveness Kaizens, the amount paid is of the order of Rs. 5,000/-, while the low effectiveness Kaizens are rewarded by a marginal amount of Rs. 100/- as an appreciation. However, the Kaizens that are rejected by the evaluation committee are not monetarily rewarded nor reasons for rejection provided.

Many of the accepted Kaizens are a simple reiteration of an established engineering principle or the course of action chosen by an employee in trouble shooting equipment. Even these types of Kaizens are rewarded. With many Kaizens in this low effectiveness type, there is a danger that high effectiveness Kaizens may receive a blow. Owing to this, many ideas, that could achieve high quantum results, are not floated at times, and personnel are more inclined to provide small Kaizens, in order to meet the targets.

At present both operations and service personnel are gauged on the same scale. However, this being a large scale production firm, there should be a difference between the criterion of evaluation between operations and service sector personnel. Owing to even a very small improvement in process parameters, the results will be quiet high. Achieving the same level of return by service personnel is quiet difficult.

**(f) Employee participation**

This company has systems developed by the senior management with little participation by employees. So the employees are also not much enthused with participation. The participation is basically to achieve the targets.

**(g) Implementation of Kaizens**

Majority of Kaizens await implementation after acceptance by the evaluation committee. This can send negative signals within the organization. This says that there is no effective way to implement the acceptable Kaizens, no definite responsibility on implementation of the same. This also reflects that the management is more interested in the figures regarding the generated Kaizens.

**(h) Skills and Abilities**

This organization is in existence for more than two decades, and personnel are very experienced. Even in spite of this, there seems to be a scope for greatly improving the quality of generated Kaizens. So the issue seems to be with the seriousness of implementation, commitment by the top management, lack of training in writing better Kaizens.

**(i) Influencing proposal activities**

Even after seven years of implementation, the only factor that seems to drive the scheme is the quota decided by management. Though this method is suitable during initial stages of the scheme, is not so good an indication of the health of the scheme.

**(j) Review and guidance**

There is no system in place for guidance though there is a system for reviewing the Kaizens. Guidance in the area of generating better Kaizens would be beneficial. This would provide lot of encouragement for the employees.

**(k) Documentation**

This organization has a good system for recording and storing Kaizens. This is quite a friendly system.

**AREAS FOR IMPROVEMENT**

Following areas for improvement are suggested for making the available system more effective:

1. Kaizens are at present evaluated by a team of technical personnel, holding high positions in their respective disciplines. Evaluation by a dedicated team, instead, comprising of members belonging to various cadres may be considered prior to evaluation by in-charges of individual departments.
2. Name of personnel should not be disclosed in order to eliminate the subjectivity associated with evaluation. Loss of motivation for some personnel can be eliminated this way. Also, the practice of total transparency will help maintaining a healthy environment.
3. For Kaizens that are rejected, the proposer should be given an opportunity to present his Kaizen, so that clarity can be improved.
4. As a part of motivating people, eliminate the system with targets, instead other methods like public recognition may be tried.
5. Every accepted Kaizen should be linked to daily job planning or to a shutdown job planning. The number of Kaizens that await implementation can be brought down.
6. The committee should release the status of implementation every month, clearly stating the reasons for pending, and the same should be projected to the senior management.
7. Continuous training of employees in their line function can help them contribute better on improvements front. Also, employees need to be guided in proposal writing of Kaizens.
8. To improve the level of motivation of the service discipline personnel, it is necessary to have a different criterion for evaluation of their Kaizens.
9. Contract manpower carryout most of the field work. It is really surprising to see that there is no system in place to tap the potential of this work force. To enable this, top management should adopt a system, where a contractor can also contribute to the company's improvement. Methodology for evaluation should be the different.
10. Regular audits on the effectiveness of Kaizen system should be conducted. Viewpoints of employees can be obtained by a questionnaire / survey.
11. Senior managers can focus on improving systems, i.e. in their own functional areas.

**ADVANTAGES OF KAIZEN**

Implementation of Kaizen in the industry resulted into following benefits:

1. Ensured incremental but continuous improvement in quality, productivity, safety, cleanliness and machine utilization.
2. Reduced process hassles.
3. Provided opportunity for innovation.
4. Improved morale of employees and brings commitment to work.
5. Improved team building, better participation and involvement.
6. Improvement of performance skills on job.
7. Improved sense of ownership.
8. Kaizen system works well in slow-growth economy.

**CONCLUSION**

From the cited example, companies can relook into their existing Kaizen systems by periodic audits to focus specifically on the effectiveness of the system. Regular training and guidance of the employees in this area will definitely help a lot. For companies with contract manpower, it is definitely advisable to include them in the scope of Kaizen system. Obtaining feedback from personnel can help a lot in maintaining the Kaizen system fit.

Kaizen focuses on small, gradual & frequent improvements over the long term with minimum financial investment. Pursuit of small improvements keeps people thinking about the process & its current operation. They identify potential improvements by analyzing the current situation & its relative inefficiencies. It begins with the notion that an organization can assure its long term survival and success only when everyone in the organization participates in the improvement to identify & implement improvements every day. Kaizen is described by a saying, "Every day and in every way, we are getting better and better." Kaizen has been proved as an effective way to identify small problems & eliminate them permanently by following the gradualist approach for improvement. With Kaizen system effectively in operation, people productivity increases through HRD, leading employees' development with organizational gain. There must be an established wisdom of introducing "Continuous Improvement" as a means of raising organizational standards. There is a need to give wide popularity to Kaizen strategy for improving companies, management world-over. Kaizen can be very helpful in implementing TQM in Indian organizations.

**ABBREVIATION**

- TQM – Total Quality Management
- PDCA – Plan Do Check Act
- JIT – Just In Time
- CWQC – Company wide Quality Control

**REFERENCES**

1. Kaizen Teian 1: Developing systems for continuous improvement through employee suggestions – edited by Japan Human Relations Association, Productivity Press, 1<sup>st</sup> edition, 1992
2. Global Management Solutions Demystified – by Dinesh Seth and Subhash C. Rastogi, Thomson, 2004, pp. 245-261.
3. Conference Proceedings of 49<sup>th</sup> Annual Convention of Indian Institution of Industrial Engineering organized at Bangalore during September, 2006.
4. L.C. Jhamb, Production Operations Management, Everest Pub. House, Pune, 2005.

## STRATEGIC INTERVENTION FOR HUMAN RESOURCE PLANNING AND DEVELOPMENT: MANAGING CHANGE IN BRITISH AIRWAYS

**DR. S. P. RATH**

**PROFESSOR - MANAGEMENT STUDIES  
INSTITUTE OF HOTEL MANAGEMENT  
(UNIVERSITY OF HUDDERSFIELD, U. K.)  
RAUZA BAGH  
AURANGABAD – 431 001**

**PROF. CHEF RAMESH CHATURVEDI**

**DEAN, CULINARY ARTS & PROFESSOR, FOOD PRODUCTION  
INSTITUTE OF HOTEL MANAGEMENT  
(UNIVERSITY OF HUDDERSFIELD, U. K.)  
RAUZA BAGH  
AURANGABAD – 431 001**

**PROF. BISWAJIT DAS**

**PROFESSOR - MARKETING  
KIIT SCHOOL OF MANAGEMENT, KIIT UNIVERSITY  
BHUBANESWAR - 751 024**

### ABSTRACT

*Human resource planning and development enable demand forecasting of manpower in the right ways. It is a planned strategic move to approach step by step. It is organized with the designed goals, objectives, mission and vision; to accomplish the target fixed. Managing changes in the organizations are necessary in the current times. It calibrate to the competition. It creates a stagnant organization amply kinetic and mobile. It happens by virtue of adopting cataclysmic changes seamlessly; in consonance to the business environment. The case in place is an example of human resource planning and strategic intervention in **British Airways**. This is a paradigm to envisage the facets of changes that occurred in the organisation. It a critical analysis to study the organizational processes and architecture (Haines, S. (Ed), 2006). In fact, the two books namely, 'Third Wave' and 'Future Shock' of Alvin Toffler propagated an ethos for change and highlighted its importance. It revolutionized the ideology of people to shift their focus. Both the books stated that, "Change is the process which pervades our life and it is important to look at it, not merely from the grand perspectives of history, but also from the vantage point of living, breathing individuals who experience it". Therefore, change is believed to be the only thing that is constant and change is inevitable. **British Airways** had to adopt change for mitigating its fiscal crisis and revived the shocking people from a stalemate phase of the company; but the process that it passed through was scientifically model driven. In reading the organizational charts of the British Airways, we can explore an overview of the organizational profile. The organizational processes that were needed to be changed for meeting the offing changes in the environment in 1980 are quite obvious. It happened with British Telecom too. It happened in the British political and people's mandate. Companies went though the changes in the business philosophy. Core mission changed in the organizations. It was a time of reformation and reconstitution of the organizations across the globe and was in the path of privatization process (Baron, J.N. & Kreps, D.M., 1999). Changes happened with the organizational structure, organizational cultural-mix, recruitment-job placement-training and promotion policy. Essentially these all and other aspects relevantly provided ideas for studying organizational change in British Airlines. It also catered to changes in the HR policy, organizational architecture and organizational culture and so forth (Baren, D.R. & Schuler, R.S., 2004). These processes being inter-related also influenced each other. They critically examined to ascertain the issues and challenges, bottlenecks and benefits, and facilitated improvisation in the performance of British Airways. These all contributed for designing the organizational architecture in consonance to the need. Equity based privatization process, reformative steps, reengineering and competition call for precision in the decision making of the organization. These aspects being treated rightly give a picture of an intelligent future organization.*

### KEYWORDS

HR Policy, Manpower Planning, Privatisation, Change Management, Rescue Measure

### AN OVERVIEW

**B** **BRITISH AIRWAYS**

The case in place is about British Airways and for that matter, we need to understand the history of the company and its networking in various levels. It is needed because British Airways, popularly known as BA is the world's renowned airline in UK, having extensions. It catered to domestic and international services and comprised of 155 destinations across 82 countries. It includes Central and Latin America, North America, Western Europe, Africa and Asia, etc. mostly. Strategically, BA's corporate headquarters is located at London, and central hub is

at both; Heathrow Airport and Gatwick Airport. And the strategic two airports are involved in short-haul and long-haul flights to destinations. BA had 287 aircraft which are mainly Airbus and Boeing jets. They had 40,000 employees to be engaged and paid salary (Hoovers, 2006)

#### **ORGANISATIONAL SETUP**

BA had typical bureaucratic organizational machinery and maintained a system typical in the government world over. It was revamped to make profit through privatization and revive from pecuniary doldrums. Consequently, operational plan of actions in the organizational chart was structured as a flat-organisation. It developed only one level hierarchy. It is the managing director at the top and the bottom-line employees. Mr William M Walls was working as CEO at that point of time. It had management level positions functioning from ten departments, and each department had its own subordinates. Departments included planning, investment, ground-operation, flight-operation, finance, law, human resource and so forth (Baron, J.N. & Kreps, D.M. 1999).

In fact, BA started in 1930s and 1940s as an offshoot of a merger. Couple of companies combined to create British Airways in 1974. It wanted to provide different facilities in different routes and developed as a single largest company. But again in 1981 BA suffered a huge financial loss. By 1988 it underwent a transformation in the organization based on the HR strategy applicable to the period of time.

#### **TOOLS OF MANPOWER PLANNING FOR REVIVAL**

As a matter of fact, British Airways employed the same tools and faced the same thing which others faced for revival. They opted for manpower planning and strategic movement. The future needs of manpower in the organisation was compared to that of the existing human resource incumbents. In doing that, it judged and identified skills and competencies. Based on this; the organization developed a plan for building the human resource strategy for retention and elimination with a compensation. The assessments and audit are important for catering decisions, which was employed.

A process-driven mechanism ultimately ensued to collect competencies that are essential in the organization. They are directed in line with the organisational mission, vision and strategic objective. They undertook HRP driven strategic decisions anticipating inevitable change in the organization. It employed demographic calculations and turnover projections. It opted for recruitment, replacements and changes in the manpower competencies in a systematic way.

#### **SYNDROMES FOR HR TO TACKLE**

British Airways undertook enterprise-based strategic functions to achieve its goals and objectives, to make the organisation sustainable and competitive. Syndromes of skill shortages, redundancy, down-sizing and right-sizing issues are obvious in different organizations. These situations presuppose an intervention. These processes incur a whopping cost. If not handled in the right time it reaches a point of no return. It has to be revised at the right time, reviewed and resurrected. Company needs agile actions (Krames, J.A., 2005).

Like in the British Airways, skill obsolescence in corporations are a major factor. It needs radical actions to be performed. Devoid of the performer it has slowdown in the economies of scale. It is envisaged today in 2008 in the financial market. Sub-prime lending is an offshoot of obsolete services in place, where real performers are absent and processes in chaos.

All processes involve costs, numbers, controls and systems interactions. It is also concerned with numerical forecasting too. Any organization for that matter has to categories its knowledge-set, smart people and skill-sets ensured with job definitions. It is always done with respect to hierarchy of the organization. Similarly, overstaffing increase direct cost, training cost and production cost. Understaffing affects values, morale and productivity. In order to create an optimised manpower planning designs the following points are salient. They are 1. Balancing of demand & supply, distribution and allocation of manpower 2. Controlling of human resource 3. Formulating policies on transfers, succession and relocation of manpower.

#### **INTERNAL AND EXTERNAL CHANGES IN ORGANISATION**

Internal and external changes in the environmental are quite natural. It can be bifurcated and categorized. They always contribute to innovations of competitive strategy. Change in the customer requirement and taste, amendments in the government policy are 'external'. 'Internal' change relates to product and service design innovation, appointment of knowledgeable senior managers for new ideas in delivering better services (Baron, J.N. & Kreps, D.M. 1999).

Amidst a set of fiscal problems, the only alternative that British Airways could take resort to was a privatization program. It had to sale government owned stakes to the private players. It influenced and improved the organizational performance; which was subjected to fierce competition.

#### **ADOPTION OF LEWIN'S MODEL**

The model that has been engaged for managing change is Lewin's model. By adopting three of the steps a strategic assessment has been made. **In step one**, it included unfreezing; which reduced the forces of change; which maintains behavior, identified the need for change and the points that needed improvement. **In step two**, movement for development of new attitude and behavior for the implementation of change was adopted, and **in step three**, re-freezing was adopted to stabilize change at the new level. It had to influence through supporting mechanism. These aspects have been dealt separately.

#### **PRIVATIZATION AS A RESCUE MEASURE**

Reformation through privatization bring forth drastic positive changes in the revival of financial crisis. It pulled the organization out of the penury trap. British Airways had a debt of 1 billion pounds and was having a burden to liquidate the public money. These public shares frightened the organization for drastic criticism. It was a time when competitors were taking away the stake of British Airways. Deregulation announced competitive pricing of fares and opened avenues for competitors in the domestic route. It made the organization change its structure, culture and mission statement to fight competition (Baren, D.R. & Schuler, R.S. 2004).

British Airways reformation measures were done by the internal agencies and personnel department. They did it through the help assistance of external agents; like consultants. Through manpower planning, organisations try to have the right number of people, right kind of people at the right places and at the right time. Manpower planning can also be defined as a strategy for acquisition, utilization, improvement and retention of human resources.

## ANTIQUITIES OF STRATEGIC MANAGEMENT

Management of human resources as a subject of study, as a concept of theory, dates back to 400 B.C. Chaldean employed Incentive Wage Plans, Babylonian civilization of Hammurabi in the 18th century BC propounded minimum wage. The principle of division of labour as a specialisation had originated in China as early 1650 B.C. Span of management concepts of organisations were reflected by Moses around 1200 B.C. Kautilya observed systematic management of human resources at around 4th century B.C. The great depression of 1920-21 threw many personnel out of jobs and this created a delusion for the profession. It developed different processes which are responsible for human resource strategies to crystallize in a phased manner. These processes made the British Airways employ techniques worthwhile for revival.

## KURT LEWIN'S CHANGE MODEL

As a matter of fact, Markov models and Monte Carlo simulations staff replacements are a couple of approaches we can be employed along with Delphi technique, for strategizing a perspective to manage change. But the application of Kurt Lewin given below is a comprehensive plan of approach to attack issues governing the idea of British Airways. In fact, Kurt Lewin (1947) studied the behavior of small groups, T-groups effectively identified the problems and models of excellence in human resource strategies emerged with a competitive advantage. TQM concepts, SGA concepts or QC concepts developed groups in consonance to the desired objectives of the organisation. It propounded various philosophies on culture, climate and matrix to accurately study organisations (Mabey, C. & Salaman, G., 1998).

**Kurt Lewin's three steps of change in British Airways** had positive and negative impacts on employees, structure and organisation. '**Unfreeze**' (first step of Lewin) the existing pattern of behavior to refrain resistance to change was ordained and was influencing the individual behavior. It employed downsizing of workforce policy and curtailed the incumbency of employees. It reduced hierarchical levels and empowered operating people and made the decisions percolate fast which resulted in better performance. It was handled with compassion and compensation. It introduced retirement schemes and was well received by the employees.

In British Airways top management also changed. Colin Marshall, the newly appointed CEO made the corporate culture democratic and introduced a new culture focusing on marketing and customer delight. It introduced training programmes to introduce and train people to fit into the culture of airline industry.

**Lewin's second model** was movement employed tactics to bring forth the highlight of top management to bottom-line. Obviously, it changed the internal structure and the system of British Airways and was complemented with incentives to absorb shock. New terminal at Heathrow airport opened the gateway and new offices were opened for training.

In order to stabilize change by placing the above systems in the behavioral pattern, a new performance appraisal was introduced. It emphasized on customer delight and integration of the entire team of people in the hierarchy. Image building exercises were introduced with uniforms, refurbishing aircraft, corporate coat of arms and a tagline titled '*We fly to serve*' was popularized.

## HR STRATEGY FOR ADVANTAGE

HR Strategy was dominantly conspicuous in the behavioral role theory pioneered by Katz and Khan (1978) and Jackson and Schuler (1995). Barney (1991) and Prahalad and Hamel (1990s) suggested HR on a sustainable competitive advantage. Human capital theory of Becker (1964) quantified on economic values and was developed by Flamholtz (1981). Rational choice theories and dependency theories on HR strategies empirically provided values for organisational performance.

British Airways' strategy was primarily concerned with the scope of an organisation's activity matching the environment in which it operates, having resource implications, operational decisions, values and expectations of stakeholders and long-term directions. Similarly, levels of strategy incorporate corporate levels, competitive or business strategy and operational strategy. In framing strategy, the plan has processes of thinking through the missions of the organisation having cognizance of the current environmental conditions which can guide for future decisions with a positive outcome (Krames, J.A., 2005).

## HR STRATEGY OF BRITISH AIRWAYS

British Airways introduced strategy in the rightful way; in the spirit of the business. Strategy is selected and implemented over time and are forward looking. The types of strategic control employed are basically of four types. They are premise controls, implementation control, strategic surveillance and special alert control. An example of operation control system is that, the operation strategy factors believe in number, type, size, location, buying decision, organisational structure, workforce selection and management style. It also includes information systems, production planning, inventory policy, quality control, improvement methods and so forth. Moreover, HR strategy factors encompass areas which are instrumental in the success of an organisation. They are mainly:

1. Recruitment and selection
2. Career development
3. Performance appraisal
4. Training and Development
5. Compensation designing

HR Strategy and its alignment with organisation are empirical yet inadequate. Strategies and policies are interdependent and have to have proper alignment. Strategies have direction and policies accomplish in a schematic manner. Forward looking organisations enforce proper control of the strategy through operational control. British Airways adopted the change and followed the HR strategy (Dowling, P.J., Welch, D.E. & Schuler, R.S., 2002).

## HR PLAN AND POLICY

Determining manpower gaps and barriers to HRP is important for the HR strategy and same was the case of **British Airways**. Keith Davis has rightly pointed out that, "*An organization should identify their short-run and long-run employee needs, examining their corporate strategies.*" In HRP, organizations can have company level plan, department plan and job-level plan. Similarly in the macro-aspect, it can be national level plan, sector level plan and industrial level plan.

In the approach of both the levels, what is important is to understand the approach factors, frequency and techniques for forecasting. In HR demand forecasting, we can make assessment through quantitative and qualitative approach employing techniques of statistical or

mathematical techniques, modeling or multiple predictive techniques and making trained analysis. Delphi techniques engage qualitative forecasting methods to summarize a judgment on the pre-selected individuals and groups. British Airways have the scope to similar approach for reformation.

#### **BRITISH AIRWAYS WAS BUREAUCRATIC**

British Airways had a style of bureaucratic functioning because of its large size and was criticized for its not rendering timely services. Privatisation infused democratic changes and hard-nosed service driven, market-driven accountability (Dessler, G., 1997).

In fact, **refreezing** introduced recruitment and job-placement as per the Lewin's model. Stabilising the behavioral pattern was calibrated to accomplish the target. Improvising on the recruitment policy and process was adopted to accept new employees with a new management style and value system. It introduced equality in identifying just candidates to feed into this system of new model that is launched. Schemes and processes gave vent to methodologies; to adopt and absorb competent and knowledge-skill savvy people; accepted right people with business acumen, motivated under a strong leadership and ensured teamwork. It introduced assessment methods for fresher's with psychometric tests and role-plays.

Promotional incentives were alluring. It became a service industry alike in the **unfreezing stage**. It introduces training program for all and special training program for special service providers. It introduced multitasking management style with a cutting edge (Chanda, A. & Kabra, S., 2000).

#### **PEOPLE-FIRST POLICY**

In order to become world's No.1 Airline, **British Airways** was driven with a marketing fervor; rather than process-driven company. As a result, it created human architecture more well-versed and awakened regarding market competitions and customer expectations. Each individual was given with a target and a goal to achieve in the best possible manner to make the airline the best in the world (Dessler, G., 1997).

#### **MANAGING PEOPLE**

Movement is important in bringing vision into the top management and employees of **British Airways**. Training program was introduced for managing people at the management level. They were groomed with stern feedback on the senior management, and staff support in an amicable smart-skill mode. It assumed a proportion of new leadership which envisaged the customer as the king for retaining a customer-oriented revenue model. Employee promotion was with respect to competency and values were given high priority. A make-believe style was introduced and values promulgated to be adhered to as the abiding principle of **British Airways**.

#### **ORGANISATIONAL CULTURE**

In BA organisational culture was pivotal for the art of differentiation. It started positioning a different culture of faith, belief and worship. British Airways amalgamated traditional values, attitudes and beliefs to attract people with the sacrosanct modes of attraction, to enable the new culture to prevail and pervade in everything, excepting none (Mabey, C. & Salaman, G., 1998).

Culture is important for organization; for giving all the employees a direction and giving them a track for creative application. It emanated with behavior and converges with harmony resulting in symphony in the organization. Companies change and re-vitalisation can get imbibed through culture, external or internal. Each employee should absorb and entertain them with renewable culture; accepted by the corporate mission.

### **REACTION TO CHANGE IN CULTURE**

#### **PRE-PRIVATISATION**

**British Airways** pre-privatisation decisions were believed to be technically haunted, bureaucratic and adamant. Authoritarian diktats resulted in impersonal relationships with employees and management, it introduced formality and negation. In BA pilots and managers having being recruited from Royal Air-force of the government were ego-centric, devoid of knowledge on customer-centric markets. (Baron, J.N. & Kreps, D.M. 1999) Safety-centric operations were paramount for them and services were not made in accordance to the competitors in the market. In this scenario, the devolution of PSUs in British Telecom and British Railways can also be reiterated to have faced the similar jolt.

#### **POST-PRIVATISATION**

Post-privatisation culture eradicated certain so-called autocratic values and attitudes with the corporate culture; going in the direction of the mission. New mission, new corporation introduced new programs and new feedback introduced changes in the system and improvised performance. Informality, novelty, customer-as-a-target and participatory method of modulating regulation became prevalent (Haines, S (Ed), 2006).

It believed in becoming a competitive airline, changing to the external environment. British Telecom transformed the organization effectively in the face of fierce competition. After privatization the loss of BA's company profit reduced from 466 million pounds in 1982 to 225 million pounds in 1987.

### **CALCULATIONS IN VARIOUS TECHNICAL MODES**

The essential calculation with respect to the changes occurring can happen through the application of moving average method; by forecasting employment level for next period; which can avoid random fluctuations to spike the process. But careful selection of the time-period must be warranted. In employing Delphi technique, we can resolve at an essential group process to achieve a consensus forecast; but the selection of the panel of experts has to appropriately add up to the crystallized series of questionnaire. It has to have a sequence scientifically interlinked and consequently changed. Cohort analysis is employed in homogenous groups taking up the length of service which can be adopted in the British Airways for wastage analysis.

### **FINDINGS AND SUGGESTIONS**

Tom Peters and J. Waterman in their book 'In search of Excellence' while judging successful companies on HRP state, "*Companies have to behave as community centers for employees with soft-skills which are compatible to the emotional quotient of employees.*" Microsoft Corporation, Reliance Industries, Mobil, Unilever, IBM- have one thing in common and the answer is change. Therefore, change is an inevitable phenomenon which the company has to inculcate in the organizational climate for building an architecture touching hearts (Ingham, J., 2007),.

In BG-HP (business growth, human process) matrix, it says that human processes of the organization should always contribute to the bottom-line and to the business growth. Correlation has to exist between HR functions and business growth. The BG-HP matrix defines this relation through 4 different quadrants: low-low, low-high, high-low and high-high.

**British Airways** changed itself for a change in future. Organisations change with respect to system and structures. But, essentially it might not change in the mind of the employees who drool over the past. It harbingers resistance, confrontation due to the unknown fear of the future. They resist in an environment of organizational change because of:

1. Selfish interest
2. Mistrust
3. Non-acceptance of evaluation
4. Intolerance for change

British Airways during its privatization changed its individual behavior and organizational behavior. The management style changed from becoming authoritarian to participatory and made the employees feel awkward due to the new environment. (Dowling, P.J., Welch, D.E. & Schuler, R.S., 2002) They readily withdrew to the comfortable zone of their mental wavelength without resorting to the implemented democratic level of change. In decision making, they tend not to come to a consensus. BA has handled chaos and resistance to resolve conflict; to create an amicable HR policy. It educated employees and convinced them to comply with the ethos. It facilitated change to combat new competition of Easy Jet and Ryan Air.

They adopted pricing strategy and brand-building exercise to create market share, mind share and heart share (Ingham, J., 2007). They revolutionized a phase of change through renaissance in the airline industry, overcoming the competition by bridging an alliance with American Airlines on logistic support system. Support systems were recruited and outsourced with a negotiated payment structure for organizational performance to enhance. Some people felt this was unfair, unassuming and insecure a job to work with BA and resorted to strikes at some points of time. The morale of the employees didn't recover with resistance, yet BA is stubbornly confident of the market forces to drive the manpower deployed and believes in awakening the workforce. BA believes in implementing change successfully through the HR planning strategies through the planning architecture conducive for good people to retain, recruit and train (Dessler, G., 1997).

Change agents change by HR intervention and reshuffling the HR architecture compatible with the business dimensions. They commensurate with the thinking of the minds of the managers, who shares responsibility. It requires specific knowledge to handle the project satisfactorily to work independently with effective collaborations wherever required.

The long history of organizational change of the **British Airways** have been internal and external pressure which adapted to the new cultural value and belief in order to incorporate better organizational performance. Through better HRP strategies and model implementation, changes can be handled rightly which are bound to be a change in market dynamics.

#### **BARRIERS TO BRITISH AIRWAYS**

1. Non-involvement of operating managers renders HRP ineffective.
2. HRP is not strictly on HR department function. Successful planning needs a coordinated effort on the part of operating managers and HR personnel.
3. Conflict may exist between short-term and long-term HRP strategy. Conflict between quantitative and qualitative approach to HRP is evident.

#### **REFERENCES**

- Baren, D.R. & Schuler, R.S. (2004), '**International Human Resource Management**' (Second Edition), Routledge – Taylor & Francis Group, p.113 – 126, p. 354-361.
- Baron, J.N. & Kreps, D.M. (1999), '**Strategic Human Resources**', John Wiley & Sons, INC. p. 17 – 25, p. 98-99, p.218-231, p.475-482.
- Chanda, A. & Kabra, S. (2000) '**Human Resource Strategy – Architecture for Change**', Sage Publication Ltd., London, p.61-182, p.253-271.
- Dessler, G. (1997), '**Human Resource Management**' (7<sup>th</sup> Edition), PHI, p.311 – 342, p.502-504.
- Dowling, P.J., Welch, D.E. & Schuler, R.S. (2002), '**International Human Resource Management**', Thomson Learning (3<sup>rd</sup> Edition), p.182-200.
- Haines, S (Ed) (2006), '**Strategic Thinking for Leadership – The Systems Thinking Approach**', - The Systems Thinking Approach (California) p. 148-157, p.189-196.
- Ingham, J. (2007), '**Strategic Human Capital Management – Creating Value Through People**', Butterworth-Heinemann, p.138-152, p. 169-173.
- Krames, J.A. (2005), '**Jack Welch and the 4 E's of Leadership**', TMH, p.175-182.
- Mabey, C. & Salaman, G. (1998), '**Strategic Human Resource Management – for Change Development & Performance**', Beacon Books, p.183-237.

## EMPLOYEE RETENTION: A COMPARATIVE STUDY OF INDIAN BPO COMPANIES

DR. SANGEETA GUPTA

DIRECTOR

OM INSTITUTE OF TECHNOLOGY AND MANAGEMENT  
HISAR

MS. N MALATI

READER & COURSE COORDINATOR (M.B.A.)

DELHI INSTITUTE OF ADVANCED STUDIES, ROHINI  
DELHI

### ABSTRACT

Attrition is the biggest problem faced by BPO's. Attrition rate in BPO's is more than the attrition rate in any other sector. It becomes imperative to control this attrition rate. Many schemes have been applied in BPO's for retention. A single tool alone is not sufficient for employee retention. The best results for employee retention can be achieved by applying different tools strategically. This paper highlights the main determinants affecting employee retention in the BPO sector. Further an attempt has been made to fathom out the retention practices prevalent in Indian BPO'S and compare the extent of employee satisfaction with respect to prevalent retention strategies adopted by Genpact and HCL.

### KEYWORDS

Attrition Rate, BPO's, Employee Retention, Job Satisfaction.

### INTRODUCTION

Emerging trends in today's fast changing corporations are pointing urgently to the need that business and human performance experts must address not only survival and security needs, but also the higher-level needs viz respect, recognition, achievement, and life-long learning. These workplace motivators and satisfiers are potent determinants of retention.

**The most challenging issue faced by corporate is to retain their employees as today's global workforce is more mobile than ever before.** Retention is one of the important aspects of an organization. The subject retention deals about **identification of human behavior** and **indicates their personnel feeling**. It is a process in which the employees are encouraged to remain with the organization for the maximum period of time or until the completion of the project. A good employer knows how to attract and retain his employees. This paper attempts to explore and identify the main determinants or factors affecting employee retention in the BPO sector. It also tries to identify the areas which otherwise are ignored while discussing about retention of employees. Further an attempt has been made to compare the retention practices of two BPO i.e Genpact and HCL.

### LITERATURE REVIEW

(Richard Lowther, 2006) identified that Dell has introduced a number of key initiatives which helped to increase employee morale and retention rates, he explained how management buy-in for diversity programs was vital for implementing a successful rollout of initiatives, and has empowered employees to manage their own workloads. (Monsen E & Boss R.W, 2009) study which focuses on employee stress, retention. It confirms that for both managers and staff, role ambiguity is positively related to intention to quit, but reports that, overall, and in opposition to hypotheses, and for both managers and staff, organizational entrepreneurial activity does not negatively influence perceptions of role ambiguity and hence intention to quit. A study undertaken by (Thomas Acton, Willie Golden, 2003) states that the IT workforce of a company may embody its most important strategic asset. Such an asset needs to be managed. At a company level, measures that support and encourage knowledge transfer amongst employees can help minimise the effect of the loss of skilled staff. (Margaret Deery, 2008) discusses the role of work-life balance (WLB) issues in an employee's decision to stay or leave an organization. (Ingg-Chung Huang, Hao-Chieh Lin, Chih-Hsun Chuang, 2006) further added that Marriage, gender, honored employee status, relative pay (both inter-firm and intra-firm wages), speed of promotion and economic cycles had a significant impact on how long the employees retained their jobs.

### RESEARCH OBJECTIVES

The Objectives of the study are as follows –

1. To identify and compare the various factors influencing decision of employees to leave BPO's
2. To find out the major factors affecting employee retention in BPO Sector in India.
3. To compare the extent of employee satisfaction with respect to prevalent retention strategies adopted by BPO's

### RESEARCH METHODOLOGY

The Research study is Exploratory in nature. Employee Retention questionnaire was used to collect the responses of the people working in BPO's. Two major BPO's were identified-Genpact and HCL. A sample of 100 was taken of which 50 each from Genpact and HCL were surveyed. Convenience sampling method was used to conduct the survey.

The questionnaire consisted of **Three Sections**. First section consisted of the demographic profile of the respondents. The second section had a question on the Factors affecting their decision to leave. Third section consisted of 5 questions which dealt with five major parameters that have an influence on retention of employees. These were: The Job itself, The Supervisor, The Department, The Management, Compensation and Benefits. The data was analyzed with the help of SPSS 17. The tools used to analyze the data included **Factor Analysis, Independent t-test and Cronbach's Alpha for testing the reliability of scales**.

## DATA ANALYSIS AND RESULTS

**Table: 1 Demographic Profile of the respondents**

	Variable	Percentage (%)
Organization	Genpact	50
	HCL	50
Respondents Job Title	Team Leader	24
	Team Member	33
	Customer Care Executive	19
	Technical support Executive	24
Education	High School	10
	Bachelors	69
	Masters	21
Gender	Male	73
	Female	27
Age	18-25	63
	26 and above	37

The sample size was of 100 employees from BPO's. Out of which 50 were from Genpact and the remaining from HCL. Out of this 24 percent were Team leaders; 33 percent were Team members; 19 percent Customer Care Executive and 24 percent Technical Support Executive. 10 percent of the respondents had completed their High School; 69 percent were bachelors and 21 percent had done their masters. 73 percent of respondents were males and 27 percent were females. Around 63 percent of employees belonged to the age group of 18 to 25 years and 37 percent of employees belonged to the age group of 26 years and above.

### RELIABILITY OF SCALES

The reliability for each of the scales was assessed by computing the coefficient of alpha ( $\alpha$ ). All coefficient of alpha ( $\alpha$ ) were found to be greater than 0.5 and therefore, were considered reliable and accepted (Nunnally, J., 1978). Table 2 gives a summarized view of  $\alpha$  value for each of the scale.

**Table2: Cronbach's Alpha Values for Reliability Analysis**

Parameters	Cronbach's Alpha	No. of items
Factors affecting decision to leave	.568	18
The Job itself	.667	10
The Supervisor	.822	7
The Department	.815	4
The Management	.670	11
Compensation and Benefits	.757	5

### Factors Affecting Decision to Leave

To identify the factors affecting decision to leave, a no of factors have been analyzed on the basis of mean score comparisons. The opinion indicated as "strongly influenced" has been assigned a weight of 5, the opinion indicated as "influenced" has been assigned a weight of 4, the opinion indicated as "Moderately influenced" has been assigned a weight of 3, the opinion indicated as "weakly influenced" has been assigned a weight of 2, the opinion indicated as "Uninfluenced" has been assigned a weight of 1. The resultant table on this basis against BPO Type as controlling factor is shown below:

**Table3: Factors Affecting Decision to Leave**

Factors	Genpact (Mean)	HCL (Mean)	Sig. (2 tailed)	T-Value
Another Position/ New Career Opportunity	4.36	4.36	1.00	.000
Dissatisfaction with Pay	<b>4.48</b>	4.08	<b>.008</b>	2.690
Lack of Recognition	3.44	3.70	0.108	-1.624
Dissatisfaction with benefits	2.88	2.76	.650	.455
Working Conditions	3.12	3.20	.689	-.401
Quality of Supervision	3.38	3.36	.904	.121
Self-employment	1.26	1.28	.851	-.188
Type of Work	1.96	2.04	.484	-.702
Conflict with co-workers	1.76	<b>2.26</b>	<b>.000</b>	-4.325
Conflict with Managers	2.66	2.98	.131	-1.523
No advancement opportunities	3.78	3.64	.435	.784
Health Problems	<b>1.70</b>	1.22	<b>.001</b>	3.463
Care for Family member	2.64	3.06	.067	-1.850

Transportation/Commuting problem	3.16	3.14	.927	.092
Relocation/Moving	2.06	<b>2.84</b>	<b>.000</b>	-3.909
Lack of Vacations	1.20	1.12	.414	.821
Company culture	1.84	1.62	.158	1.424
Company instability	<b>3.18</b>	1.30	<b>.000</b>	9.815

The table 3 shows the mean value of each factor affecting employees’ decision to leave. For the employees of **Genpact** the most important factors for leaving the organization are **dissatisfaction with pay**, followed by **New Career Opportunity, No Advancement Opportunities, Lack of Recognition Quality of Supervision**. While the least important factors that would influence their decision to leave an organization are **Lack of Vacations, Self Employment, Opportunity, Health Problems, Conflict with Co-workers and Company Culture**. So in this organization the most important factor to leave a job is their dissatisfaction with pay.

The case is almost the same with **HCL**, the top most factors influencing their decision to leave an organization are **New Career Opportunity, Dissatisfaction with Pay, Lack of Recognition, No Advancement Opportunities and Lack of Recognition**. The least important factors for leaving are **Lack of Vacations, Health Problems, Self-opportunity, Company Instability and Company Culture**.

It has been observed that there is a significant difference of opinion in the following factors:

- ☞ **Dissatisfaction with Pay:** The employees of Genpact (Mean 4.48)) are more willing to leave an organization due to dissatisfaction with pay.
- ☞ **Conflict with co-workers:** The employees of HCL(Mean 2.26) were moderately influenced to leave the organization due to conflict with their co-workers.
- ☞ **Health Problems:** Employees of HCL (Mean 1.22) have not been influenced to leave the organization due to health problems as compared to the employees of Genpact.
- ☞ **Relocation:** Employees of HCL (Mean 2.84) are more likely to leave the organization due to relocation as compared to the employees of Genpact.
- ☞ **Company Instability:** Most of the employees of Genpact (Mean 3.18) are leaving the organization due to company instability as compared to the employees of HCL.

**PARAMETERS FOR EMPLOYEE RETENTION**

In order to gain an insight into the parameters that affect employee retention, literature review was employed to identify 5 areas which have a significant influence on employees’ retention. They were **The Job itself, The Supervisor, The Department, The Management and COMPENSATION AND BENEFITS**

Each of these major areas had a number of item statements and each respondent was asked to indicate the degree of agreement or disagreement with each of the item statement on a scale of 1 to 5 with **1 being defined as Strongly Disagree and 5 as Strongly Agree respectively**. **Factor Analysis** was used to understand the interdependence amongst the factors, using principal component analysis method in SPSS windows.

**ADEQUACY OF THE DATA FOR FACTOR ANALYSIS**

**Table 4: KMO and Factor Loading**

Parameters	KMO	Factor Loading
Job itself	<b>.457</b>	60.24
Supervisor	.519	63.28
Department	.518	62.475
Management	.574	70.213
Compensation & Benefits	.503	<b>52.88</b>

Table 4 shows the **Kaiser-Meyer-Olkin (KMO) and Factor Loading** for each of the parameters.

As shown above on the basis of the KMO values, only T-test has been conducted for two parameters - **Job Itself** and **Compensation and benefits**. While for the other three parameters - Supervisor, Department and Management both factor analysis along with T-test has been undertaken.

**THE JOB ITSELF**

In order to fathom out the comparative view of the employees of both the BPO’s and the results are as follows:

**Table 4.1: Mean Comparison of BPO’s Employees on the basis “The Job Itself “**

Parameter	Genpact (Mean)	HCL (Mean)	Sig (2 tailed)	T-Value
Challenging Job	3.24	<b>3.62</b>	<b>.026</b>	-2.266
Skills Were effectively used	3.48	3.60	.599	-.528
Effective Job orientation	3.30	3.26	.821	.227
Reasonable Work Load	2.74	2.96	.231	-1.206

Sufficient Resources available	<b>4.62</b>	4.18	<b>.000</b>	4.342
Safe , comfortable work environment	4.20	4.24	.790	-.267
Satisfied Performance Feedback Policy	2.76	<b>3.60</b>	<b>.001</b>	-3.382
Satisfied Job	2.92	2.74	.301	1.041
Work Life Balance	2.14	<b>2.58</b>	<b>.041</b>	-2.075
Availability of Training / Educational opportunities	<b>2.20</b>	1.74	<b>.016</b>	2.461

Table 4.1 indicates that for the variables **Challenging Job, Sufficient resources available, Satisfied with performance feedback, Work Life balance and Availability of Training and educational opportunities**, the respondents possess a significant difference of opinion.

- a. **Challenging Job**- Employees of HCL( Mean 3.62) feel that the work is more challenging than the employees of Genpact ( Mean 3.24)
- b. **Satisfied with performance feedback policy**- Employees of HCL( Mean 3.60) were a bit more satisfied with their organization performance feedback policy as compared to their counter parts in Genpact.( Mean 2.76)
- c. **Work life balance** - HCL (Mean 2.58) follows relatively better work life balance practices than Genpact( Mean 2.14)
- d. **Sufficient Resources available** - Employees of Genpact (Mean 4.62) are better equipped with resources than HCL(Mean 4.18)
- e. **Availability of Training and educational opportunities** – Employee of Genpact (Mean 2.20) are indifferent with regard to the availability of training and educational opportunities whereas the employees of HCL( Mean 1.70) seems to be dissatisfied with the training and educational opportunities provided to them in the job.
- f. There is no significant difference of opinion among the respondents of both BPO's on **skills were effectively used, Effective job orientation, reasonable work load, Safe and comfortable work environment and Satisfied with the job.**

**THE SUPERVISOR**

This particular question dealt with the **Supervisor** of the respondents. In order to study this particular domain initially there were 7 statements. Factor Analysis was used to understand the interdependence amongst these 7 statements.

The factor analysis **results are shown in Tables 4.2a; 4.2b**. The variance explained by extracted components, and the rotated components have been displayed in Table 6b. The total variance shown in the Table 4.2a accounted for by all of the three components explains nearly 63 percent of the variability in the original 7 variables. The original dataset was reduced by using these three components. Varimax rotation was applied for these seven variables. The factor loadings of these four variables were then observed and variables were **clubbed into 3 factors**. The factors were named accordingly.

**Table 4.2a: Total Variance**

Total Variance			
Component	Eigen values		
	Total	% of Variance	Cumulative %
1	1.813	25.897	25.897
2	1.531	21.871	47.768
3	1.086	15.512	63.280

Factor I: **Supervisor’s knowledge of job**

Knowledge of job	.864
Knowledge of supervision	.863

Factor II: **Support to Employees**

Open to suggestions	.796
Recognized employee contribution	.650

**Table 4.2b: Rotated Component Matrix**

	Component		
	1	2	3
Knowledge of job	<b>.864</b>	-.126	.080
Knowledge of supervision	<b>.863</b>	.072	-.144
Open to suggestions	.082	<b>.796</b>	.222
Recognized employee contribution	-.394	<b>.650</b>	-.033
Communicated with employees	-.165	-.221	<b>.647</b>
Encourages co-operation	.044	<b>.681</b>	-.302
Effort to hear employee concerns	.100	.158	<b>.731</b>

The **Rotated Component Matrix** reveals **three factors** (which represents the three broad perceptual dimensions about employee retention)

**Factor 1 Supervisor’s knowledge of job.**

**Factor 2: Support to employees.**

**Factor 3: Communication with employees.**

Thereafter, to have a comparative view the factors affecting retention of employees in sampled BPO's, a T- test was conducted. Results of independent t-test are recorded in Table 4. 2c.

**Table 4.2c: Mean Comparison of BPO's Employees on the basis "The Supervisor"**

Parameters	Genpact (Mean)	HCL (Mean)	Sig. (2-tailed)	T value
Supervisor's Job knowledge	5.6816	6.6317	.000	- 3.679
Support to employees	7.0114	7.3018	.217	-1.245
Communication with employees	4.5375	4.6331	.500	-.677

Table 4.2c indicates that for the variable **Supervisor's Job knowledge**, the employees of HCL (mean 6.6317) agree that there supervisor had adequate knowledge of the job in comparison to employees of Genpact ( mean 5.6816)

For the variables **Support to employees and Communication with employees** the respondents of both the BPO's have same opinion i.e the employees feel that their supervisors are open to suggestions, provide recognition for their work but feel that there exists a communication gap about the work to be done.

**THE DEPARTMENT**

This question dealt with the **Department** of the respondents. Factor Analysis was used to understand the interdependence amongst these 4 statements. The result showed that the **KMO and Bartlett's test values as 0.518** which was considered as adequate to apply factor analysis. The criteria for extracting initial factors were Eigen value of over1.

The factor analysis **results are shown in Tables 4. 3a, 4. 3b**. The variance explained by extracted components, and the rotated components are displayed in Table 3b. The total variance of about 62 percent shown in table 3a was considered as appropriate for a research study of this nature.

Varimax rotation was applied for these four variables. The factor loadings of these four variables were then observed and variables were **clubbed into 2 factors**. The factors were named accordingly.

**FACTOR ANALYSIS**

**Table 4.3a: Total Variance**

Total Variance Explained						
Component	Initial Eigen values			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.385	34.635	34.635	1.291	32.273	32.273
2	1.114	27.840	62.475	1.208	30.202	<b>62.475</b>
3	.811	20.275	82.750			
4	.690	17.250	100.000			

**Table 4. 3b**

Rotated Component Matrix <sup>a</sup>		
	Component	
	1	2
Had Synergy in its various operations	.227	<b>.737</b>
Had Adequate equipment	<b>.783</b>	-.059
Was adequately staffed	<b>.781</b>	.144
Had efficient and effective Working conditions	-.129	.801

The **Rotated Component Matrix reveals two factors** (which represents the four broad perceptual dimensions about employee retention)

**Factor 1** incorporates the variables ---- the department had adequate equipment and the department was adequately staffed. Since all these variables are related to resources, it has been labeled as **Adequate resources available**.

**Factor 2:** incorporates the variables ----- the department had synergy in its various operations and having efficient and effective Working conditions. Therefore this factor has been labeled as **Effective and Efficient department**.

To gain further insight into the department itself affecting retention of employees, a qualitative analysis tool was used ----- **T- test**. Results of independent t-test is recorded in Table 4.3c

**Table 4.3c: Mean Comparison of BPO's Employees on the basis "The Department"**

Parameters	Genpact (Mean)	HCL (Mean)	Sig. (2-tailed)	T value
Adequate resources available	5.6778	<b>6.4755</b>	.000	-5.056
Effective and efficient department	5.0959	5.2548	.436	-.781

Table 4.3c indicates that for the variable **adequate resources**, the employees of HCL(**6.4755**) mean strongly agree that their department has adequate equipment and is adequately staffed in comparison to employees of Genpact (mean 5.6778)

For the variable **Effective and efficient department** the employees of both the BPO's have similar opinion. This implies that the employees of both BPO's agree that their departments have good synergy and efficiency in their working.

**THE MANAGEMENT**

This question dealt with the **Management** of the respondents' organization. In order to study this particular domain initially there were 11 statements.

Factor Analysis was used to understand the interdependence amongst these 11 statements. The result showed that the **KMO and Bartlett's test values as .574** which was considered as adequate to apply factor analysis.

The factor analysis **results are shown in Tables 4.4a; 4.4b**. The total variance of about 70 percent shown in table 4.4a was considered as significant for a research study of this nature.

Varimax rotation was applied for these eleven variables. The factor loadings of these eleven variables were then observed and which were then **clubbed into 5 factors**. The factors were named accordingly.

**FACTOR ANALYSIS**

**Table 4.4a**

Total Variance Explained						
Component	Initial Eigen values			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.190	19.907	19.907	2.002	18.203	18.203
2	1.922	17.469	37.376	1.833	16.660	34.863
3	1.385	12.589	49.964	1.478	13.438	48.301
4	1.195	10.859	60.823	1.309	11.901	60.201
5	1.033	9.389	70.213	1.101	10.012	<b>70.213</b>

**Table 4.4b**

Rotated Component Matrix <sup>a</sup>					
	Component				
	1	2	3	4	5
Fair & Equal Treatment	<b>.697</b>	-.150	.165	-.120	-.181
Available to discuss issues	<b>.799</b>	.097	-.258	.150	-.077
Welcomed Suggestions	<b>.678</b>	.291	.108	.099	.250
Maintained consistent policies	.030	<b>.712</b>	.330	.183	-.219
Provided recognition for achievements	.013	<b>.799</b>	-.095	-.182	-.070
Encouraged Co-operation and Collegiality	.098	<b>.617</b>	-.239	.337	.195
Provided Development opportunities	.004	.098	.045	<b>.875</b>	.075
Encourages Open Communication	-.240	.141	-.767	<b>.170</b>	-.076
Treats Employees with Respect	-.062	-.091	.024	.048	<b>.929</b>
Promoted Diversity	-.415	<b>.359</b>	.321	-.478	.171
Provides Equitable Compensation	-.417	.155	<b>.709</b>	.239	-.071

The **Rotated Component Matrix reveals five factors** (which represents the four broad perceptual dimensions about employee retention)

**Factor 1** incorporates the variables ---- Management gave fair and equal treatment, was available to discuss job related issues and welcomed suggestions and encouraged feedback. Thus, all these variables together have been named as **Fair treatment towards employees**.

**Factor 2:** incorporates the variables ----- Management maintained consistent policies and practices, provided recognition for achievements, encouraged Co-operation and Promoted diversity. Thus all these variables have been named as **Management support to employees**.

**Factor 3:** incorporates the variables ----- **Provides Equitable compensation**.

**Factor 4:** incorporates the variables ----- Management provided development opportunities and Encourages open communication. Thus, these variables clubbed together have been labelled as **Open communication and development opportunities**.

**Factor 5:** incorporates the variables ----- **Treats employees with respect**.

Thereafter, to gain further insight into the factor Management of the BPO's affecting retention of employees, we used a qualitative analysis tool- **t-test**. Results of independent t-test is recorded in Table 4.4c

**Table 4.4c**

Parameters	Genpact (Mean)	HCL (Mean)	Sig. (2-tailed)	T value
Fair Treatment by management towards employees	6.7284	6.8453	.712	-.371
Management support to employees	8.5255	8.2679	.401	.844
Provides equitable compensation	1.4464	<b>2.0845</b>	<b>.000</b>	-4.897
Open Communication & development opportunities	2.5453	2.8482	.057	-1.928
Treats employees with respect	3.6231	3.7160	.479	-.711

Table 4.4c indicates that for the variable **Provides equitable compensation**, **T value was found to be significant at 0.05 level of significance**, thus respondents have significant difference of opinion. It has been observed that the employees of HCL(mean **2.0845**) disagree that their management provides equitable compensation in comparison to employees of Genpact (mean 1.4464).

For the other variables the employees of both the BPO's have similar opinion, as they **agree** that their management **gives fair treatment and support their employees**. However employees of both the organization feel that there exists a **communication gap** between them and their management therefore **less development opportunities** are provided and they cannot treat **employees with respect**.

## COMPENSATION AND BENEFITS

Table 4.4d

Parameter	Genpact (Mean)	HCL (Mean)	Sig. (2 tailed)	T-Value
Medical insurance package	2.48	2.38	.611	.510
Health care plan	2.58	2.12	.007	2.772
Savings plan	1.48	1.84	.001	-3.298
Retirement program	1.36	1.34	.843	.199
Job market competitiveness of salary	2.90	2.74	.411	.825

\* Significant at 0.05 level of significance.

Table 4.4d indicates that for the variables **health care plan and savings plan**; T value was found to be significant at 0.05 level of significance, thus respondents has **significant difference** of opinion.

The employees of HCL (mean 2.12 ) feel that the **health care plan** is inadequate in comparison to employees at Genpact( mean 2.58).

The employees of Genpact (mean 1.48) are dissatisfied with the **Savings plan** provided by their organization in regards to employees of Genpact (mean 1.84)

Employees of both the BPO's are dissatisfied with **Medical insurance package, Retirement plans and Job market competitiveness of salary..**

## FINDINGS

The major findings of the study are as follows:

- The most important factors affecting employees' decision to leave are Dissatisfaction with Pay, New career Opportunity, No advancement and Development opportunities, Lack of Recognition, Quality of Supervision.
- Employees agree that their supervisors have knowledge of the work and provide recognition, but feel there is communication gap between them and their supervisor about the work to be done.
- The employees are also dissatisfied with the :
  - Compensation and benefits offered to them
  - Career development opportunities and work life balance
  - Training and Educational opportunities available to them.

## SUGGESTIONS AND CONCLUSION

Hence it is observed that organizations should aim at developing effective talent management policies and practices that demonstrate commitment to human capital as they result in more engaged employees and thus lower turnover. Consequently, employee engagement would have a substantial impact on employee productivity and talent retention. In addition, organizational culture and leadership development also have a significant impact on talent retention. Taking these factors into consideration, an integrated approach to talent management offers a pathway toward sustaining outstanding business results. But, the best retention intervention is not a single point resolution and organizations in this sector should understand that employees don't leave companies rather the companies enforce them to leave, so it is the duty of the policy makers to adopt best retention strategies to retain their best brains.

## REFERENCES

- Cooper, Schindler (2005), "Business Research Methods", The McGraw-Hill, 9<sup>th</sup> Edition.
- Employee Retention: Tips and Tools for Employee Retention (2010) viewed on 16 June 2010  
[http://humanresources.about.com/od/retention/Retention\\_of\\_Employees\\_Tips\\_and\\_Tools\\_for\\_Employee\\_Retention.htm](http://humanresources.about.com/od/retention/Retention_of_Employees_Tips_and_Tools_for_Employee_Retention.htm)
- Employee Retention (2010), viewed on sept. 30 <http://www.dittmanincentives.com/PDF/WhitePaperEmployee%20Retention.pdf>
- Ing-Chung Huang, Hao-Chieh Lin, Chih-Hsun Chuang (2006), "Construction factors related to worker retention", International Journal of Manpower, Vol-27, pp491-508.
- Margaret Deery (2008), "Talent management, work-life balance and retention strategies", International Journal of Contemporary Hospitality Management, Vol-20, pp792-806.
- Monsen E., Boss R. W. (2009), The impact of strategic entrepreneurship inside the organization: Examining job stress and employee retention.
- Naresh K. Malhotra (2006), "Marketing Research: An Applied Orientation", Prentice Hall India.
- Richard Lowther (2006), "Embracing and managing diversity at Dell: Introducing flexible working and a women's network to help retain key employees", Strategic HR Review, Vol-6, pp16-19.
- Thomas Acton, Willie Golden (2003), "Training the knowledge worker: a descriptive study of training practices in Irish software companies", Journal of European Industrial Training, Vol-27, pp137-146.

## NURTURING ENTREPRENEURSHIP IN RURAL COMMUNITIES

**SWAMY TRIBHUVANANDA H. V.**

MEMBER, ISTE, NEW DELHI

ASST. PROFESSOR - MBA PROGRAMME

BAPUJI INSTITUTE OF ENGINEERING & TECHNOLOGY

DAVANGERE – 577 001

**DR. R. L. NANDESHWAR**

DIRECTOR

OXFORD COLLEGE OF BUSINESS MANAGEMENT

BANGALORE – 560 102

### ABSTRACT

*The development of entrepreneurship can be a major means of fighting economic inertia in rural areas. In this paper, the researcher made an attempt to understand the determinant factors of entrepreneurial activity. 400 rural entrepreneurs are selected in 40 Villages of 8 Taluk in Karnataka State, India through multiple sampling methods. Research study involved an in-depth examination of entrepreneurial activity, socio-economic variables and motives associated with rural entrepreneurship. To conclude, the various motivational factors will influence the entrepreneurship activity and their development.*

### KEYWORDS

Entrepreneurial Motivation, Rural Development and Rural Entrepreneurs.

### INTRODUCTION

After centuries of colonial rule, we started to think about ourselves as a Nation. We had made up our minds that India needs the goodness of both capitalism and socialism. Hence, we adopted a middle path called mixed economy. It was a partnership of private and government enterprises. Government concentrated on basic infrastructure, core industries and others were left to the private sector. The father of the nation, Mahatma Gandhi said that "India lives in villages". Following the vision of ramarajya, first five year plan was dedicated to agriculture. From there onwards, we have not looked back. However, the pace of development was so slow up to 1980, that the Westerners termed it as the "Hindu rate of growth".

Promoting entrepreneurship is viewed as part of a formula that will reconcile economic success with social cohesion (Organization for Economic Co-operation and Development, 1998). Raising employment levels and encouragement of new entrepreneurs were recognized as some of the main objectives of the Bank Nationalization in 1969. History has shown that societies where people had shown qualities of initiative, courage and a forward looking attitude have always been ahead of other societies. Jagadeesan and Santana Krishnan (2008), is of the view that "the development in rural India can only be supported by the growth of rural entrepreneurship". Recent empirical research also has shown that people of more advanced and developed societies have evinced a greater degree of what is known as entrepreneurial qualities. In India also, a number of studies have proved that success in most fields is accompanied by a high degree of entrepreneurial qualities and the qualities of entrepreneurship can offset other disadvantages. With this background, the present research was undertaken. This study was aimed at assessing the relationship between Entrepreneurial activity and rural transformation. The paper, therefore, identified the factors influencing rural entrepreneurship amongst people in 40 villages of different taluk in Karnataka State.

### RESEARCH METHODOLOGY

The study had to be descriptive against the backdrop of the fact that the researcher had no control over the scheme of the prevalent and evolving dynamics of the research environment. In this sense, the research effort has made a sincere attempt to measure and report the most relevant factors in an unbiased manner. The researcher has opted Descriptive Research method. The researcher has used survey with field visits to select villages of Karnataka State to collect data.

#### DATA COLLECTION METHODS

The present study is based on both primary data and secondary data, in order to serve the purpose of the study and to achieve the research objectives. Primary data is gathered from the rural entrepreneurs spread across in different villages of Karnataka state using pre-tested structured questionnaire. One of the parameters by which the entrepreneur was chosen to be depicted is the age of business. The entrepreneurs are chosen with minimum criteria that at least they should be of one year of existence in business.

#### SAMPLE UNITS/RESPONDENTS

It consists of Entrepreneurs in Villages. The sample units for gathering the primary data, keeping in view the nature of the research problem and objectives have been decided to have the person involved in economic activity like Fertilizer, renting Farm equipment, Seeds, Dairy activities, Grocery, General store, Garments Shop, Garage, Chemist, Shoe store, Electronic goods, Commission agents, Sanitary goods, Tailor, Utensil store, Parlor, Goldsmith, Blacksmith, Carpenter, Cycle repair, Photographer, Sweet shop, Electric Shop, Tent house, Flour mill, PCO, Tea shop, Stationary Shop, Hotel and other similar business activities.

#### SAMPLING

In view of the regional diversity involved in the respondents, different sampling methods had to be adopted. The sample size under each category of respondents and how they have been drawn from sampling frame is portrayed in the following table

Table – 1: Composition of Sample Size

Sl. No.	Category	Sample Size	Sampling technique used
1	Districts	04	Random sampling
2	Taluk Place	08	Random Sampling
3	Villages	40	Random Sampling
4	Rural Entrepreneurs	400	Purposive Sampling

In each village, 10 entrepreneurs are selected using purposive sampling, who possess at least one year of experience as entrepreneurs. The sample is selected deliberately or purposively for study to represent different trades or businesses in that village.

## RESULTS AND DISCUSSIONS

**Demographic Variables:** Detailed analysis revealed that 88.8 percent of the respondents were male while 11.2 percent was female. About 88.5 percent was ascribed to those who were married, 9.5 percent to the unmarried and 2 percent to the widow / widower. 50 percent of respondents belong to the family size of 2-5 members and 40.3 percent to the Over 31 percent of the respondents had secondary level schooling and 24.8 percent Pre-University and 23.5 percent had primary schooling. 63 percent own agriculture land. 69.5 percent of the respondents are first generation entrepreneurs.

**Socio-economic Variables:** 71 percent respondents have no previous job experience. 44.3 percent of the respondents got business information through news paper, 42 percent by visiting market place and 62.5 percent through friends and relatives. The significant proportion of entrepreneurs under study- 31.50 percent- entrepreneurs had existence in business for more than seven and above years. The next category of entrepreneurs is between three years and five years accounted for the second highest category with 30.50 percent. The shortest of all is between one year and three years with 18 percent. About 54.5 percent of respondents said that their initial investment to the business is less than Rs. 25000/-.

41.5 percent of respondents agree that their income from entrepreneurial activity is between Rs. 25001/- to Rs. 75000/-. About 65.5 percent of entrepreneurs generated at least one employment to the maximum of 6.

69.7 percent of entrepreneurs own two wheelers, 70.3 percent have mobile connection, 76.5 percent have LPG connection, 74.8 percent of entrepreneurs own house, 82.5 percent have television set for entertainment. 24.5 percent of entrepreneurs are willing to look for new opportunities along with the existing one.

## FACTOR ANALYSIS

"Often among the many variables you measure, a few are more related to each other, than they are to others. Factor Analysis allows us to look at these groups of variables that tend to relate to each other and estimate what underlying reasons might cause these variables to be more highly correlated with each other", Jeff Miller, Vice President, Consulting and analytical, Burke, Inc. (Source: Marketing Research, Naresh K Malhotra).

This tool of SPSS was extensively used to classify a large number of variables into smaller number of factors. Factor analysis was used to determine whether there was any common constructs that represented entrepreneurial motives. 34 variables were analyzed using the Varimax rotation, the most commonly used method. Factor analysis was done using principal component analysis.

Bartlett's test of sphericity and Kaiser Meyer Olkin (KMO) measure of sampling adequacy were used to examine the appropriateness of factor analysis. The approximate chi-square statistic is 5463.421 with 561 degrees of freedom with p value 0.000. The KMO statistic (0.828) is also large (>0.5). Hence, factor analysis is considered an appropriate technique for further analysis of data.

Table – 2: KMO and Bartlett's Test

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.827956
Bartlett's Test of Sphericity	Approx. Chi-Square	5463.421
	df	561
	Sig.	0.000

Table 3 shows the results of varimax factor rotation pattern, in which the variables that had high loadings on each of the eight factors extracted in the analysis. Retaining only the variables with Eigen values greater than one (Kaiser's criterion), we can infer that 19.19 percent of variance is explained by factor 1; 12.56 percent of variance is explained by factor 2; 8.77 percent of variance is explained by factor 3; 6.24 percent of variance is explained by factor 4; 4.81 percent of variance is explained by factor 5; 3.61 percent of variance is explained by factor 6; 3.45 percent of variance is explained by factor 7 and 3.13 percent of variance is explained by factor 8 and together, all the factors contributed to 61.75 percent of variance. On the basis of Varimax Rotation with Kaiser Normalization, 8 factors have emerged. Each factor is constituted of all those variables that have factor loadings greater than or equal to 0.5. Factors extracted were labeled or named based on the researcher's subjective interpretation of experiences from literature and joint explanation or interpretation of the meaning of the highly loaded variables on each factor. Table 4 shows the eight (8) major factors derived with their latent roots as they associate with motivation. The factors extracted are Lucrative Business Environment (19.19%), Opportunity to generate additional income (12.56%), Community affiliation (8.77%), ability to cope with changing trends (6.24%), self orientation (4.81%), owning family responsibility (3.61%), family tradition (3.45%) and ability to mobilize the resources (3.13%). About 61.75 percent of the variation was explained by the eight factors. 38.25 percent of variation was explained by unknown factors. This relatively high value of the unknown factors may have been due to the influences of the myriad of indicators, which could not be individually isolated.

Table – 3: Rotated factor matrix for respondent's motivational factors associated with entrepreneurship

Variable	Factors							
	1	2	3	4	5	6	7	8
3. Market was Less Competitive	0.749	-0.022	0.182	-0.013	0.045	0.040	-0.054	-0.028
4. Circumstances / situations are conducive to become entrepreneur	0.724	0.060	0.118	0.106	-0.095	0.111	-0.194	0.144
6. Ample Opportunities were available	0.698	0.004	-0.033	0.016	-0.006	0.121	-0.065	0.197

8. Favorable Demographic and economic factors	0.674	0.251	0.005	0.053	-0.031	-0.002	0.281	-0.034
5. Impressive profit attraction	0.625	-0.025	0.091	-0.001	0.137	0.325	-0.177	-0.012
2. I was having better exposure / informed, so I thought of seizing that opportunity	0.612	-0.004	0.318	0.050	-0.002	0.156	-0.178	-0.167
10. To have self dependent life	0.321	0.247	0.030	0.155	-0.227	0.243	-0.212	0.091
26. Opportunity to utilize the profits for agricultural purpose	-0.128	0.786	-0.045	0.027	0.103	-0.046	0.006	0.063
27. This is one among different employment opportunities	0.054	0.701	-0.254	-0.226	0.231	0.172	-0.165	-0.008
30. Need for dominance	0.221	0.662	0.256	0.103	-0.030	0.038	0.060	0.320
18. I had Economic / financial stability	0.286	0.553	0.219	0.297	-0.232	-0.041	0.130	0.038
29. Fluctuations in income / To avoid seasonal income (income variations)	0.185	0.485	0.298	-0.124	0.152	0.321	-0.134	0.289
19. Encouragement from friends and relatives	0.103	0.148	0.760	0.115	0.060	0.049	-0.039	0.019
28. This was my last option / resort in life	0.123	-0.050	0.634	0.172	0.010	0.223	-0.120	0.287
32. Passion for work (Motivation to do the business)	0.500	-0.052	0.606	0.010	0.034	0.176	0.196	-0.046
34. Support and encouragement from NGOs	-0.019	0.482	0.559	0.064	0.243	-0.039	-0.010	-0.186
31. Need to shape my life	0.394	-0.090	0.500	0.031	-0.007	0.425	0.016	0.043
33. Self efficacy (beliefs about their capabilities)	0.472	-0.054	0.485	-0.090	0.033	0.074	0.057	0.216
16. I was having specialized expertise in technical Know-how	-0.061	0.059	0.109	0.838	0.127	0.061	0.024	-0.028
9. Technological developments / advancements	0.143	0.035	0.065	0.756	0.167	0.046	0.129	-0.062
15. I was having Business expertise	0.071	-0.207	-0.007	0.701	-0.081	0.270	0.027	-0.018
14. I was having Innovation motive	-0.180	0.393	-0.423	0.543	0.240	-0.076	0.041	0.039
20. I had Joint family background	0.092	0.055	0.123	0.463	0.140	-0.280	0.157	0.102
17. Previous Experience	-0.089	0.428	-0.436	0.452	0.112	-0.049	-0.002	0.065
22. Possessing Knowledge of different languages	0.127	-0.040	-0.033	0.386	0.714	-0.079	-0.011	0.157
21. Possessing required qualification / education	0.063	-0.011	0.232	0.407	0.679	0.004	-0.071	0.139
23. I had the support / influence of Politician	-0.087	0.142	-0.014	0.033	0.598	0.042	0.128	-0.101
24. Encouragement from Govt. Policy/ Schemes	-0.010	0.527	0.043	-0.009	0.584	-0.139	0.014	-0.146
25. Need for social security	0.057	0.313	0.411	-0.193	0.449	0.344	-0.047	-0.139
13. To Safe guard against uncertainty in life	0.250	0.164	0.115	0.075	-0.033	0.685	0.101	0.016
11. Responsibility of family	0.275	-0.113	0.226	0.088	0.003	0.656	0.023	0.065
7. To continue family tradition	-0.053	0.193	-0.052	0.238	0.180	0.022	0.768	0.044
1. Opportunity to create own Destiny (Achievement motivation)	0.273	0.325	-0.012	-0.068	0.090	-0.072	-0.728	-0.043
12. I was having the ability to organize and administer factor of production	0.087	0.173	0.071	-0.013	-0.027	0.034	0.066	0.825

Source: field survey 2009

Table – 4: Principal component analysis of independent variables associated with motivation to become entrepreneur

Factor Identified	Variables loading above 0.5	Loading	% of Variance	Cumulative % of Variance
Lucrative Business Environment	3. Market was Less Competitive	0.749	19.19	19.19
	4. Circumstances / situations are conducive to become entrepreneur	0.724		
	6. Ample Opportunities were available	0.698		
	8. Favorable Demographic and economic factors	0.674		
	5. Impressive profit attraction	0.625		
	2. I was having better exposure / informed, so I thought of seizing that opportunity	0.612		
Opportunity to generate additional income	26. Opportunity to utilize the profits for agricultural purpose	0.786	12.56	31.75
	27. This is one among different employment opportunities	0.701		
	30. Need for dominance	0.662		
	18. I had Economic / financial stability	0.553		
community affiliation	19. Encouragement from friends and relatives	0.760	8.77	40.52
	28. This was my last option / resort in life	0.634		
	32. Passion for work (Motivation to do the business)	0.606		
	34. Support and encouragement from	0.559		

	NGOs			
	31.Need to shape my life	0.500		
Ability to cope with changing trends	16.I was having specialized expertise in technical Know-how	0.838	6.24	46.76
	9. Technological developments / advancements	0.756		
	15.I was having Business expertise	0.701		
	14.I was having Innovation motive	0.543		
Self Orientation	22.Possessing Knowledge of different languages	0.714	4.81	51.57
	21.Possessing required qualification / education	0.679		
	23.I had the support / influence of Politician	0.598		
	24.Encouragement from Govt. Policy/ Schemes	0.584		
Owning family responsibility	13.To Safe guard against uncertainty in life	0.685	3.61	55.18
	11.Responsibility of family	0.656		
Family Tradition	7. To continue family tradition	0.768	3.45	58.62
Ability to mobilize the Resources	12.I was having the ability to organize and administer factor of production	0.825	3.13	61.75

## CONCLUSION

It is obvious that motivation is an essential part of all successful entrepreneurs. One or more factors together influence Entrepreneurial activities in villages. "Lucrative Business Environment", "Opportunity to generate additional income", "community affiliation", "ability to cope with changing trends", "self orientation", "owning family responsibilities", "continue family tradition" and "ability to mobilize the resources" are the eight motivational factors, which energizes the rural entrepreneurs. It might be comforting to conclude that the success of business venture or long term survivability of business totally depends upon the nature of entrepreneur motivational factors.

## REFERENCES

### JOURNALS

1. Abdolhamid Papzan, Kiumars Zarafshani, Malekeh Tavakoli & Mahya Papzan. (2008, September). Determining Factors Influencing Rural Entrepreneurs Success: A Case Study of Mahidasht Township in Kermanshah Province of Iran. *African Journal of Agricultural Research*, Vol, 3(9), p. 597-600.
2. Anabela Dinis. (2006, January). Marketing and Innovation: Useful Tools for Competitiveness in Rural and Peripheral Areas. *European Planning Studies*, Vol.14, No.1, p. 9-21.
3. Gry Agnete Alsos, Elisabet Ljunggren & Liv Toril Petterson. (2003). Farm-Based Entrepreneurs: What Triggers the Start-up of new Business Activities. *Journal of Small Business and Enterprise Development*, p. 435-443.
4. Gupta, S.K. (1989, January). Entrepreneurship Development: The Indian Case. *Journal of Small Business Management*, 27,1;ABI/INFORM Global, p. 67-69.
5. Gurpreet Bal. (2005, September 3). Violence, Migration and Entrepreneurship: Punjab during the Khalistan Movement. *Economic and Political Weekly*, p 3978-3986.
6. John E. Waldrop. (1972, July). Discussion: Economic and Social Indicators of Rural Development from an Economic Viewpoint. *Southern Journal of Agricultural Economics*, p 247 – 249.
7. Kari Mikko Vesala, Juuso Peura & Gerard Mc Elwee. (2007). The Split Entrepreneurial Identity of the Farmer. *Journal of Small Business and Enterprise Development*, Vol. 14, No.1, p. 48-63.
8. Kolawole, O.D., & Torimiro, D.O. (2005). Participatory Rural Entrepreneurship Development for Grassroots Transformation: A Factor Analysis. *J.Hum. E. Col.*, 18(3), p. 193-198.
9. Nath, V. (2000, Nov 25). Entrepreneurship by Regions and Castes: A Survey. *Economic and Political Weekly*, p. 4207-4211.
10. Peter Hazell (2007). Transformation in Agriculture and their Implications for Rural Development. *Electronic Journal of Agricultural and Development Economics*, Vol.4, No.1,p. 47-65.
11. Sandra Sattler Weber. (2007). Saving St. James: A Case Study of Farmwomen Entrepreneurs. *Agriculture and Human Value*, 24, p. 425-434.
12. World Bank Report, Attacking Rural Poverty: Strategy and Public Actions, No.6, p. 1-4.

### BOOKS

1. Swamy Tribhuvananda., Gopakumar (2009) "E-halli: an Opportunity to become Rural Entrepreneurs.", E-Governance Development and Diffusion, edited by Ganesh P.Sahu et al., Information Science Reference, Chapter 14, pp 264-271

## EMPLOYER BRANDING FOR SUSTAINABLE GROWTH OF ORGANISATIONS

**DR. V. T. R. VIJAYAKUMAR**

**CHAIRMAN & CHIEF EXAMINER OF M.B.A. BOARD, ANNA UNIVERSITY OF TECHNOLOGY, IRUNELVELI**  
**CHAIRMAN & CHIEF EXAMINER OF M.B.A. BOARD, ANNA UNIVERSITY OF TECHNOLOGY, CHENNAI**  
**PROFESSOR AND HEAD, DEPARTMENT OF MANAGEMENT STUDIES**  
**ST. XAVIERS COLLEGE OF ENGINEERING & TECHNOLOGY**  
**CHUNKANKADAI – 629 807**

**MRS. S. ASHA PARVIN**

**LECTURER, DEPARTMENT OF M.B.A.**  
**SUN COLLEGE OF ENGINEERING AND TECHNOLOGY**  
**ERACHAKULAM - 629 902**

**MR. J. DHILIP**

**HEAD, DEPARTMENT OF M.B.A.**  
**VINS CHRISTIAN COLLEGE OF ENGINEERING**  
**CHUNKANKADAI – 629 807**

### ABSTRACT

*Employer branding is the image of an organization as a great place to work in the minds of its current employees and key stakeholders. It is the development of such an organizational culture which fosters a sense of belongingness with the company and encourages the employees to share organization's goals for success. In short, it is the value of the company in external marketplace. The goal of employer branding is to create loyal customers; the customers here being the employees. From an HR point of view branding is very important. If your organization has a good brand image in the market, it will help you in getting right workforce at right time and at the same time you will have a control over the employee cost. An organization with no brand name has to shell out lots of money to attract and retain the right candidate. This paper begins by defining the concept of Employer Branding practices carried out by the organisations to attract talents which help them to move towards their vision in a successful style. Types of Employer Branding, Branding Strategy and the benefits received by the organisation by adoption of the concept of Employer Branding in Indian context are then discussed.*

### KEYWORDS

Employer Branding, Employer Branding Strategy, Benefits, Employer Branding in India.

### INTRODUCTION

The concept of branding for products and services is well known. Employer branding may be the least known type of branding yet is becoming more important to organizations. The reason is changes in workforce demographics. The baby-boomers are retiring and the pool of new recruits is not sufficient to fill the gap. According to an Accenture survey, 60% of CEOs are very concerned about attracting and retaining people. The concept of Employer Brand has gained importance since 1990's or it is a result of Global manic competition but above all it has become a magnetic force, a catalyst, an accelerator and a prime factor which determines an organization success and future. Employer brand has overshadowed and synchronized all other factors which had their individual importance like customers, relationship, PR, networking, 2- way communication etc and is now the sole prima factor or the turnkey of success.

In the present job markets, where companies compete for attracting the best of the talent, employer brand, sometimes, becomes more relevant when compared to various critical factors like job profile and the compensation package. Employer branding is the image of an organization as a great place to work in the minds of its current employees and key stakeholders. It is the development of such an organizational culture which fosters a sense of belongingness with the company and encourages the employees to share organization's goals for success. In short, it is the value of the company in external marketplace. The goal of employer branding is to create loyal customers; the customers here being the employees.

From an HR point of view branding is very important. If your organization has a good brand image in the market, it will help you in getting right workforce at right time and at the same time you will have a control over the employee cost. An organization with no brand name has to shell out lots of money to attract and retain the right candidate.

This paper begins by defining the concept of Employer Branding practices carried out by the organisations to attract talents which help them to move towards their vision in a successful style. Types of Employer Branding, Branding Strategy and the benefits received by the organisation by adoption of the concept of Employer Branding in Indian context are then discussed.

### CONCEPTUAL ANALYSIS OF EMPLOYER BRANDING

Brett Minchington (The Employer Brand Institute), defines employer branding as "the image of the organization as a 'great place to work' in the minds of current employees and key stakeholders in the external market (active and passive candidates, clients, customers and other key stakeholders)." (1) It is the 'sum of a company's efforts to communicate to existing and prospective staff that it is a desirable place to work'

(Lloyd 2002) (2). Increasingly, it is likely to also be used to create what has in the popular business press recently been referred to as 'employment brands' building and sustaining employment propositions that are compelling and different. The moniker 'employer brand' appears to have first been coined by Ambler and Barrow (1996) (3), who defined it as 'the package of functional, economic and psychological benefits provided by employment, and identified with the employing company'. The authors go on to suggest that, just like a traditional brand, an employer brand has both personality and positioning. Employment branding is therefore concerned with building an image in the minds of the potential labour market that the company, above all others, is a 'great place to work'. According to human resources consultants Hewitt Associates, there are four steps to developing a strong employer brand:

- (i) understand your organisation,
- (ii) create a 'compelling brand promise' for employees that mirrors the brand promise for customers,
- (iii) develop standards to measure the fulfilment of the brand promise,
- (iv) 'ruthlessly align' all people practices to support and reinforce the brand promise,

Moreover, it is posited that companies with strong employer brands can potentially reduce the cost of employee acquisition, improve employee relations, increase employee retention and even offer lower salaries for comparable staff to firms with weaker employer brands (Ritson 2002) (4). Collins (1995) (5), confirming prior research, suggest that early recruitment activities are indirectly related to intentions and decisions through two dimensions of employer brand image: general attitudes towards the company and perceived job attributes. Examples of employer brands, and indeed employer advertising, are becoming increasingly common.

Employer branding is the development and communication of an organization's culture as an employer in the marketplace. It conveys organisations "value proposition" - the totality of organisations culture, systems, attitudes, and employee relationship along with encouraging organization's people to embrace and share goals for success, productivity, and satisfaction both on personal and professional levels.

Employer branding is the essence of the employment experience, providing points that commence with initial employer brand awareness, and continuing throughout the tenure of employment, even extending into retirement. Employer branding is a distinguishing and relevant opportunity for a company to differentiate itself from the competition creating its branded factors as its USP for employee satisfaction and happiness resulting in retention, productivity and efficiency (6).

### RISING IMPLICATION OF EMPLOYER BRANDING

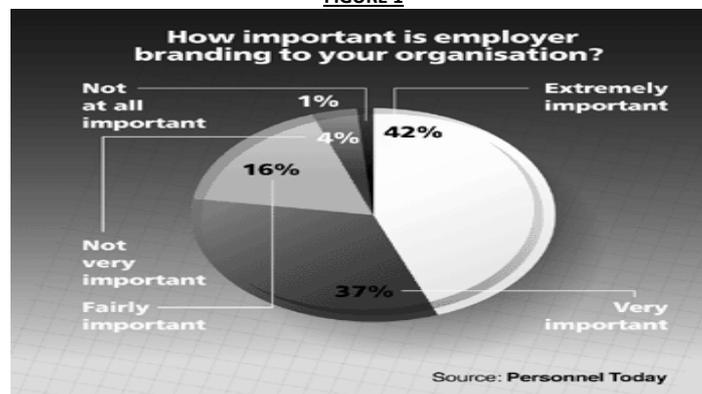
It is said that an unsatisfied customer tells ten people about his experience while an unsatisfied employee tells a hundred. Employer branding reflects the work culture in an organization. It has become more critical in today's times, as most professionals are looking at a stable career and establishing a long-term relationship with the company. Research shows that employees of industrial brands feel a much greater sense of pride, attachment and trust towards their employer. They are also significantly more likely to recommend their company to others and claim it treats employees well. Through right branding, the company can recruit the best talent and reinforce its positioning amongst its employees. It helps build trust and reliability. A good employer brand makes it easy to attract good talent and curb attrition. The strength of an organization's brand has a significant impact on the performance of its employees. Working with one of the largest or most innovative companies in a specific industry acts as a motivator too.

But as one moves higher in his career, brand name becomes of little significance as job role takes over. Brand name is the most important factor but at entry level only. When one is a fresher and embarks on one's career, the brand of a company matters. It helps in reflecting a stronger resume. With career growth, one places importance on things that are more meaningful to one's sense of purpose. It is also being argued that in most cases, companies treat employer branding as a mere short-cut for attracting the talent. Instead of self-analysis, the HR departments tie up with ad agencies to conjure up an image that may be attractive to their target market, even if not their own. While some argue that organizations like Google with strong employer brand hardly spend money in building the brand; instead they focus on living the brand. Sasken, for example, has a stated 'People First' policy to emphasize that employees are the focus. Fedex has a core philosophy of 'people - service - profit' to indicate what comes first. Bill Marriott of Marriott Hotels does not tire of repeating the founder's belief "Take care of the associates, and they'll take good care of the guests, and the guests will come back." These organizations reveal a high degree of trust in the management of the organization. Managements must understand that the core value offering of the organization is to engage employees towards being productive and responsive to customers. In the end, it is believed that if the company takes care of people, people will take care of the company. (7)

### SURVEY RESULTS

An exclusive survey of 1,889 *Personnel Today* readers with responsibility for recruitment reveals that 95% of respondents believe employer branding is 'important' (Fig. A) (8).

FIGURE 1



**BRANDING STRATEGY****A) NATURE OF BUSINESS**

Branding should be based on the nature of business. Like if an IT company goes for a fashion show, it may not yield the same results as it would have got by going to IT Fair or something similar. A real estate company may go for some road show on property market.

**B) NATURE OF MARKET**

It is always recommended to gauge the market before going for any project which involves market risk. Like if targeting to explore a financial market or banking and at the same time it is marred by some other factors like Inflation, you need to design your strategy which could help you in overcoming the negative trend.

**C) RECEPTION TARGET**

It's always good to define the reception target or the audiences. The audiences under employer branding are the internal customers of the organisation. The attempt of employer branding boosts up the morale of the employees and thereby keep the employees feel satisfied.

**D) LONG TERM MISSION OF ORGANIZATION**

Also the long term as well as short term goals of the organization should be kept in mind. If the organization does not have any long term goals in the target market or location, it's always recommendable not to go for branding or it is very much required go for a small, low budgeted branding event.

**E) ORGANIZATIONAL STRUCTURE**

Organizational structure is also very vital part for deciding any strategy. Organizational structure is the strength of any organization and any event or branding can be done based on that. Like if the organization does not have lots of hierarchy steps, it can boast of Flatness and claim of equal behavior. And if it has different layers, it can market the clear definition of roles etc.

**EXTERNAL BRANDING**

External branding refers to branding which is done by using external sources and which may (or may not) require some investment in monetary or other forms. The different means of doing external branding are;

**(A) USE OF JOB SITES** – As HR the first thing which comes to the mind is recruitment, so Job sites also offer good branding opportunities through different means like Pop ups, pop ins etc. It's always better to go for pop ins as most of web browsers come with pop-up blockers.

**(B) BANNERS** – Banners are also a good mean for branding. Banners can be of both types' means Online Banner and Street banners. By Online banner, your organization name will be flashed on different web pages as per your choice and price. Street banners are good for bigger requirements.

**(C) ROAD SHOWS** – Road shows are also an important mean for creating brand awareness. Corporate can organize talks, presentations, seminars etc. for attracting people towards your organization.

**(D) CORPORATE SOCIAL RESPONSIBILITY** – Corporate social responsibility refers to corporate getting associated with society for some noble cause. The association can be in any mode either getting associated with a Charitable Trust or a NGO or some other public venture. Corporate can align and attach with any of these and share the stage. Always keep in mind that choose as per organization status meaning if it's a small firm, do associate with a medium sized organization and if medium it can align with either of these- large or medium. Idea should be getting a nice coverage in the popularity cake.

**(E) PUBLIC EVENTS** – Public events are one of the major ways of creating a brand image. An organization can participate in any of the public event and assuring that it does not get disappeared in the crowd of many brands or big names.

**(F) NEWSPAPERS** – Branding can be done through newspapers as well. If you target the local public, you can go for advertisements considering the individual day circulation, target readers, rapport of newspaper, type of newspaper etc. If you target only to employ people for your workforce requirement, you can place job Ads which may seem expensive at the first glance but in terms of attracting the correct workforce, it can do magic.

**(G) EMAIL** – For mail ids related to job portals, you can create an auto reply which can contain brief description of the key aspects of candidate's and public interest and at the same time introducing your company to the public. It should be informative as well as crispy so that the audience reads it and just doesn't do Shift Delete.

**(H) TAGLINE** – Create a nice, attractive tagline or a punch line for your brand and give it a significant visibility in all your branding efforts. The tag line should be in accordance with the organization values, goals, work etc. so that it reflects an overall image of the brand everywhere.

**(I) ALIGN WITH CELEBRITY** – Aligning with a celebrity is also a good way of creating a brand image. But this may cost big bucks and ultimately increasing your cost dramatically. This is an expensive method of branding.

**INTERNAL BRANDING**

Internal Branding is comparatively a cheaper way of branding. Organisation can use its internal organizational staff for this purpose.

**(A) FRONT OFFICE** – Always pay attention to your front office because first impression is last impression. It should be kept neat and clean with a pleasant receptionist who always maintains freshness and welcomes the guests with courtesy.

**(B) STAYS INTERVIEW** - HR can always conduct stay interviews in which they can interact with the employee and ask them regarding their career prospects, there alignment with the company, there feedback regarding their concerned departments, etc. These feedbacks can be analyzed and used for different purposes by which you can create an internal brand image of the country.

**(C) EXIT INTERVIEW** – An exit always carries a fair chance of initiating the chain reaction among the employees so always be very careful in analyzing the exiting reasons so that you can overcome the justified ones in the future.

**(D) EMPLOYEE SATISFACTION** – Employee satisfaction is always very important for any organization to grow. A satisfied employee is a productive employee. If your employee is satisfied, you can relax because they will create a good and positive rapport for the company in the market outside.

**(E) POLICY INFORMATION** – Always design your policies very strategically. A policy should be designed in such a way that it holds good even after a long period of time. A frequent internal policy change sends a message to the outer world that the company is not consistent and knowledgeable and reliable.

**(F) CUSTOMER ORIENTATION** – Customers are always the most important factors. Always keep your workforce motivated towards delivery of customer oriented services. Customers can be of either type, internal or external.

**(G) EMPLOYEE PARTICIPATION** – Ensure the maximum participation from the employee side, either in terms of internal events participation or external events.

**(H) TRAINED EMPLOYEES** – Always ensure proper training of employees before they are engaged in work. The training should be in all the aspects like policies, vision, mission, organization. This will project a good picture of organization on the new employee (9).

### EMPLOYER BRANDING IN INDIA

“The Employer Branding—A Strategic Tool to Attract, Recruit and Retain Talent” highlights that HR uses the employer brand for three main reasons: 1) organizational culture and employee fit; 2) positive outcomes for recruiting; and 3) retaining talent with corporate values and a team-based culture. At its most effective, the employer brand is a long-term strategy with a transparent message that promotes the organization as an employer of choice. The increasing focus on competitive advantage is leading many firms to rethink their employer brand (10). “India, Inc.”—a common term used in India to refer to India’s corporate sector—aims to positively build on opportunities as the world economy strengthens, and the employer brand is a prime example of a progressive HR practice in India. The fit between employer and employee is important for hiring compatibility. Yet, research shows that Indian companies do not always intentionally develop employer branding interventions. “Infosys, Wipro and TCS did not intentionally build their brands; rather, they focused on building a productive workplace, resulting in happy employees, and their brands were the result of that foundation,” “For other organizations in India, such as RMSI and Google, which already have strong employer brands, their goal is to ‘live’ the brand.” As Indian firms focus on strategies of turnaround, diversification, expansion and internationalization, human resources and human capital performance in India have become increasingly important. Consequently, HR’s role in effectively using the employer brand has tremendously expanded and grown in importance. Employer branding becomes a tokenism when it doesn’t fit in the DNA of the company. And, there needs to be a lot of self-sustained and conscious effort needed to create such a fit; to ‘become oneself’. The Tatas would never like to become like Reliance, or vice-versa. The brand as an employer must provide a long-term advantage. And this advantage comes only when the profile of the candidate fits well with the profile of the company. Also, one must also appreciate that employer branding works mainly at the entry-level since the middle level workforce and upwards look at other things, such as job profile, career enhancement et al (11).

Outcome of effective employer branding:

Employer branding gives an organization a competitive advantage. Employer branding is a tool to attract, hire, and retain the “right fit it also has an impact on shareholder value, creating positive human capital practices, contribute to bottom-line. Strong employer brands have employer value propositions (EVP’s) which are communicated in company actions and behaviors and evoke both emotive (e.g. I feel good about working here) and tangible benefits (this organization cares about my career development) for current and prospective employees. These organizations segment and communicate EVP’s which reflect the image that the organizations want to portray to its target audience. Employer Value Proposition (EVP) is a set of associations and offerings provided by an organisation in return for the skills, capabilities and experiences an employee brings to the organisation. A company’s employer brand is reflected in the actions and behaviors of leaders and is affected by company policies, procedures, and practices and the same when well planned and implemented results in profitability of organizations. Thus to retain talents inside the organisation not only during the bliss of the organisation but also in its tough times employer branding strategy plays a vital role.

### CONCLUSION

Thus it can be concluded that not only there is a need of creating a satisfaction in minds of employees (Internal customers) but there is an urgent need of creating this positivism in the minds of external customers and stakeholders. The created image has to be monitored and sustain in such a way so that it will help in increasing profits as well as would create belongingness, pride, self actualization and true commitment in true words and spirit.

### REFERENCES

1. Ambler T and Barrows (1996), “The Employer Brand – Attract, Engage , Retain, Collective Learning Australia
2. Collins, J 1995), Built to Last, Random House, UK
3. Lloyd.S (2002) ,”Branding from the inside out’, Business Review weekly,Vol 24 No 10, pp 64-66
4. Madhukar Shukla, Employer Branding is tokenism in India, www.economicstimes/indiatimes.com
5. Minchington.B (2010) “Employer Brand Leadership- a Global Perspective, Collective Learning Australia.
6. Minchington.B(2006), Your Employer Brand – Attract, Engage, Retain, collective Learning Australia
7. Ritson (2002), “ Employer Branding and Retention” ,www.mbs.edu
8. Rohit Minton, “ Employer Branding – A New HR Arena”, www.contentwriter.in
9. Vijit Chaturvedi, “Employer Branding: A Ripple effect for organizational effectiveness”, www. indianmba.com
10. www.naukrihub.com
11. www.personneltoday.com

### NOTES

<sup>1</sup> Minchington.B (2010) “Employer Brand Leadership- a Global Perspective, Collective Learning Australia.

<sup>2</sup> Lloyd.S (2002) ,”Branding from the inside out’, Business Review weekly,Vol 24 No 10, pp 64-66

<sup>3</sup> Ambler T and Barrows (1996), “The Employer Brand – Attract, Engage , Retain, Collective Learning Australia

<sup>4</sup> Ritson (2002), “ Employer Branding and Retention” ,www.mbs.edu

<sup>5</sup> Collins, J 1995), Built to Last, Random House, UK

<sup>6</sup> Vijit Chaturvedi, “Employer Branding: A Ripple effect for organizational effectiveness”, www. indianmba.com

<sup>7</sup> www.naukrihub.com

<sup>8</sup> www.personneltoday.com

<sup>9</sup> Rohit Minton, "Employer Branding – A New HR Arena", [www.contentwriter.in](http://www.contentwriter.in)

<sup>10</sup> Minchington.B(2006), Your Employer Brand – Attract, Engage, Retain, collective Learning Australia

<sup>11</sup> Madhukar Shukla, Employer Branding is tokenism in India, [www.economicstimes/indiatimes.com](http://www.economicstimes/indiatimes.com)

## A STUDY ON THE RELATIONSHIP BETWEEN EMOTIONAL INTELLIGENCE AND PERSONALITY OF PROFESSIONAL AND NON-PROFESSIONAL STUDENTS- AN EXPLORATORY EVIDENCE

**G. M. ARCHANA DAS**

**ASST. PROFESSOR (OB/HRM), GITAM SCHOOL OF INTERNATIONAL BUSINESS  
GITAM UNIVERSITY  
VISAKHAPATNAM**

**T. V. ANAND RAO**

**PROFESSOR & HEAD OF THE DEPARTMENT OF PSYCHOLOGY  
ANDHRA UNIVERSITY  
VISAKHAPATNAM**

### ABSTRACT

*Students with high Emotional Quotient are highly successful and bag laurels in any context. Perhaps, high success rate of these students could be attributed to their Emotional competencies and efficacy. The present study examines the relationship between Emotional Intelligence and Personality of professional and non-professional students. The total sample comprises 246 students with a mean age of 22.43 of Visakhapatnam district, out of which 57% constitute male students, 43% constitute female students. 68 % constitute professional students and 31% constitute non-professional students. Two inventories were used for data collection. Emotional intelligence scale developed by Dr.Meera Shanker and Dr.Omer Bin Sayeed (2006) was used to examine the emotional intelligence of students. Myer Briggs Type Indicator Form G developed by Isabel Myers and Katherine Briggs (1977) was used to measure the personality preference on 4 dichotomies that includes extraversion vs. introversion (E-I), sensing vs. intuition (S-N), thinking vs. feeling (T-F), judging vs. perceiving (J-P). Significant positive and negative correlations were found within male and female student groups on some factors of Emotional Intelligence and Personality. Results indicate significant positive correlation between Extraversion and some EI factors like impulsiveness, self acceptance, problem solving, self awareness, and personal fulfillment within professional student group and a negative correlation between Extraversion and some EI factors like empathy and anxiety and stress within non-professional student group. Most of the findings were consistent with the results reported elsewhere in the literature.*

### KEYWORDS

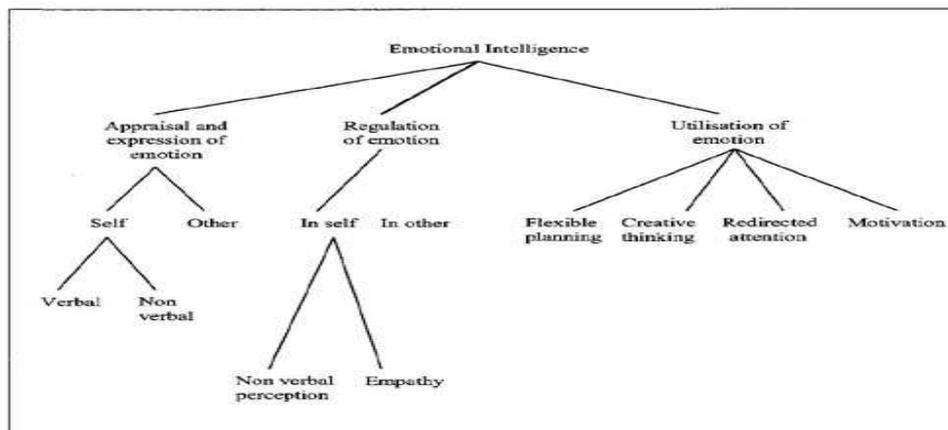
Emotional Intelligence, extraversion, feeling, intuition, introversion, judging, perceiving, sensing, thinking.

### INTRODUCTION

The concept of emotional Intelligence has gained popularity as the outcomes associated with high Emotional Quotient are manifold. The term emotional Intelligence has been proposed in 1985 with Wayne's Leon Payne's doctoral thesis, "A study of emotion: Developing emotional intelligence", that provided a clear understanding of the nature and characteristics of Emotional Intelligence. Mayer and Salovey are often credited with the work of Emotional Intelligence. Mayer and Salovey defined Emotional Intelligence as "the subset of social intelligence that involves the abilities to monitor one's own and other's feelings and emotions, to discriminate among them and to use this information to guide one's thinking and action". (p.189).According to Mayer and Salovey's Ability model there are four related abilities:

1. Ability to identify emotions
2. Ability to use emotion to facilitate thinking,
3. Ability to understand emotions,
4. Ability to manage emotions

The below given illustration is a pictorial representation of Mayer and Salovey's Ability Based Model.



(Salovey & Mayer, 1990)

Emerging research studies (Nelson & Low, 2003; Pearson, 2002,) suggest that Emotional intelligence and Personality factors are important constructs for students. Nelson and Low in their positive Education model, stated that high levels of Emotional Intelligence is a key factor in physical and mental health, academic achievement, personal satisfaction, and career excellence. According to the evidence provided by Goleman (1995 & 1998) students with high EQ can manage their behaviors, communicate with others effectively, face change well, solve problems and use humor to build close relationship with others in difficult or tense situations. As most Emotional skills can be learnt, academicians can incorporate some good exercises and assignments that will help the students to learn Emotional competencies. Eminent researchers like Mayer and Salovey support the importance of incorporation of Emotional Intelligence in the standard curriculum (1993). Edwin M Hartman (1998) asserted that course in business ethics can help develop self-awareness, a trait that professionals should have. In 2002, Vitello-Cicciu conducted a study on university students and found that self awareness was the most vital trait for professional success. Shipper and Davy, (2002) asserted that lack of self awareness, resulted in negative performance among MBA students. Knowing this important finding, it becomes imperative for teachers and academicians to train the students in such a way that they learn and imbibe these emotional competencies to be successful in any context. But to enhance students self efficacy, it is essential for teachers to learn and apply effective and healthy stress management skills in order to cope with pressure and remain healthy and positive.

Theorists like (Schultz, 1990; Allport, 1937; Rogers, 1959; Skinner, 1982; Freud, 1924 and Jung 1968) have described personality and its importance for human growth and development. According to Gordon Allport human Personality was something distinct within a person that leads an individual to think and behave in a particular way. The meaning of Emotional Intelligence have been expanded and characterized by a list of personality distinctions (Mayer 1999). Some studies indicate that there is a relationship between Emotional Intelligence and Personality. For instance, Personality type influences how we develop our emotional quotient, and Emotional Quotient influences how we apply and develop our personality type

Mayer (2005) also stated that there are specific and important reasons to understand the relationship between Emotional Intelligence and Personality and they are:

1. Connecting Emotional Intelligence with Personality will help in understanding many aspects of Emotional Intelligence and Personality.
2. Understanding Emotional Intelligence as a part of Personality system may identify many parts of Personality that influence Emotional Intelligence.
3. Understanding that Emotional Intelligence is a part of Personality indicates a great deal about how it will be expressed.
4. Understanding Personality helps link Emotional Intelligence with relevant parts of personality to identify target variables.

The present study has focused on Jungian's personality type theory and utilized Myer Briggs Type Indicator to examine the personality types of the students. Thereby, the researcher intends to comprehensively give an explanation of the theory. The idea of psychological types originated in the theoretical work of Carl Jung and William Marston. Personality type refers to the psychological classification of different types of people. Personality types are distinguished from personality traits, which come in different levels or degrees. According to type theories, for example, there are two types of people, introverts and extraverts. According to trait theories, introversion and extraversion are part of a continuous dimension, with many people in the middle.

## PERSONALITY TYPE THEORY

Personality type theory is an outcome of Jung's work. Jung has suggested that there are two pairs of attitudes or orientations in type theory. They are:

**EXTRAVERSION:** In extraverted attitude, energy and attention flow out. The individual experiences a desire to rely on the environment for stimulation and guidance. Extraverts are action oriented, impulsive, and show an eagerness to communicate with others.

**INTROVERSION:** In introversion, energy is drawn from the environment toward inner experience and reflection. They show an interest in the clarity of concepts, ideas, recollected experience, and prefer detachment and privacy.

**JUDGING:** In judging attitude a person is concerned with making decisions, seeking closure, planning operations, or organizing activities. People preferring judging are purposeful, decisive and organized.

**PERCEIVING:** In the perceiving attitude a person is attuned to incoming information. The perceiving attitude is open, spontaneous, adaptable, curious, and interested.

The essence of Jung's comprehensive theory of type is that everyone uses four basic mental functions or processes that are called sensing and intuition, thinking and feeling.

### TWO KINDS OF PERCEPTION:

Jung divided all perceiving attitudes into two categories namely sensing and intuition which he referred as irrational functions.

**SENSING:** Individuals showing a preference for sensing tend to focus on the immediate experiences available to their five senses. They develop characteristics associated with awareness such as enjoyment for the present moment, realism, acute powers of observation.

**INTUITION:** Refers to the perception of possibilities, meanings and relationships by way of insight. Individuals high in intuition are imaginative, theoretical, abstract, and future oriented, original and creative.

### TWO KINDS OF JUDGMENT:

Jung divided all judging activities into two categories such as thinking and feeling and referred them as rational functions.

#### THINKING:

Individuals who are primarily oriented toward thinking are very objective, analytical, and show a concern with principles of justice and fairness.

#### FEELING:

Individuals who are primarily oriented toward feeling are more likely to be attuned to the values and feelings of others as well as to their own values and feelings. They show a strong desire for affiliation, warmth, harmony and a time orientation that includes preservation of enduring values. Jung gave 16 types and these types result from a preference for one plot of each of the four dichotomous over the opposite pole.

## REVIEW OF LITERATURE

### EMOTIONAL INTELLIGENCE IN EDUCATIONAL SETTINGS

Research on Emotional Intelligence, Personality type, and the relationship between Personality and Emotional Intelligence are gaining immense amount of attention as the findings would give some substantial inputs to academicians on the ways to improve effectiveness of educational

activities. Goleman proposed that a child's effective learning depends on the amount of skill training he or she has received. Goleman also reported that Emotional Intelligence is a better predictor of academic and personal achievement. (1995) Goleman found that distinguished organisation leaders are not only defined by high IQ but also by their high Emotional Quotient levels. Goleman also identified some people skills that distinguish these superior leaders from others and they are understanding others, developing others, leveraging diversity, political awareness, communication, conflict management, leadership, change catalysts, building bonds, collaboration and cooperation and team capabilities.

Goleman proposed guidelines for emotional competence training for best practices in teaching competence based on Emotional Intelligence. These guidelines were:

1. Access to job
2. Access the individual
3. Deliver assessments with care
4. Gauge readiness
5. Motivate
6. Make change
7. Make Self directed
8. Focus on clear and manageable goals
9. Prevent relapse
10. Give performance feedback
11. Encourage practice
12. Arrange support
13. Provide models
14. Encourage
15. Reinforce change
16. Evaluate.

Educational Institutions should cater utmost attention to student's interests of developing their emotional skills as they are the future leaders responsible for escalating organisation development and effectiveness. Goleman et al. (2002) suggested that the best leaders create resonance in their organizations and poor leaders create dissonance in the workplace. Goleman also asserted that leader's emotional intelligence is infectious. When the leader provides resonant energy the organisation thrives with vitality and improved productivity, but when the leader spreads dissonance, organizations collapse. So the curriculum should be set in such a manner that they become resonant leaders but not dissonant leaders with poor emotional competencies.

#### **EMOTIONAL INTELLIGENCE AND GENDER**

Although studies conducted in the past indicate contradicting results on Emotional Intelligence between males and females, common conclusions suggested that females are emotion oriented than males. (Argyle, 1990; Bernet, 1996; Heatherington, Stets and Mazzerella, Sutarso, Baggert, Sutarso, & Tapia 1996). According to Bar-On's findings, females demonstrated more proficient interpersonal skills than males. But males demonstrated a more capable interpersonal ability than females. Males also are reported to be better at managing emotions and are more adaptable than females. (Bar-On, 1997). Females are empathetic and socially responsible (Bar-On, Roberta Bampton; 1999, Elizabeth J. Austin; 2004, Paul; 2007)). Bar-on also postulated that males are adept at coping with stress, solving problems and were more optimistic than females. Females characterized a closer linkage between self-esteem and body attitudes than males (Furham & Greaves, 1994). Females looked for emotion support, seeking emotion focused coping methods to a greater extent than males (Tapia & Marsh, 2001). Males tended to focus on problem-coping strategies while females emphasized mood and emotion when facing problems (Butler & Nolen Hoeksema, 1994; Ptaseck, Smith & Dodge, 1994). Female students were less confident and more anxious than males in solving mathematical computations and this was very evident in co-education (Charlotte Grassi, Vermeer, Harriet J; 2000)

Men reported more inhibition of aggressive feelings (Mc Conatho, Lightner, Deaner, 1994). Girl's demonstrated higher levels of self-monitoring behavior than boys (Cole, 1994; Davis 1995). Women showed high personality preference for Intuition (Kristin Backhaus, 2007) Empirical studies in review of literature indicate that there are many areas that have to be unraveled with respect to gender in the area of Emotional Intelligence. Most important finding revealed from the growing research and application is that improving emotional intelligence skill is an essential element for academic success, personal health, career performance and leadership (Low & Nelson, 2006).

#### **EMOTIONAL INTELLIGENCE AND PERSONALITY TYPE**

According to Pearman, MBTI personality types reflect how individuals see and act on these components of emotional intelligence. Li-Fang Zhang aimed to explore the relationship between thinking styles and emotions among 99 2nd-year (23 men, 76 women) university students in Hong Kong. Participants responded to the Thinking Styles Inventory-Revised (TSI-R), and the Iowa Managing Emotions Inventory (IMEI). Results indicated that thinking styles were associated with emotions and had predictive power for emotions beyond age. Fretz, Bruker (1967) found that students who improved academically after an educational skills course exhibited preference for a judging attitude, in contrast to a perceptive one. Malcolm Higgs found that Intuition and Extraversion are significantly and positively related to higher levels of EI such as interpersonal sensitivity, decision making. MBTI extraverts are not specifically described as being sensitive to others needs and are more self-centered. There is a positive relationship between MBTI extraversion and motivation. Malcolm Higgs found that MBTI feeling is significantly negatively correlated with emotional resilience. Sensing is negatively correlated with interpersonal sensitivity, decision making and total EI. MBTI perception is also significantly correlated with Intuitive decision-making. Felder aimed to study the effects of personality type on 116 engineering student performance and attitudes. There was a significant mean difference between intuitors and sensors on problem-solving ability and intuitors were high on problem-solving ability than sensors.

Kilduff conducted a study on 170 MBA students and suggested that extraverts were high in self monitoring and quick decision making. Kenneth O Doyle, (2000) using survey on U.S. adult population found that extraverts were happier than introverts, and tender minded were happier than tough minded. Eysenck, Pearson, Easting, & Allsopp, (1985) conducted a study on 51 female occupational therapy students and found that impulsiveness is positively correlated with extraversion, .57(p<.01). Corulla (1989) showed impulsiveness to be more aligned with extraversion than with psychoticism. Brackett, Nezlek, (2004) found a positive relationship between the ability to manage emotions and the quality of social interaction, on a sample of 118 American college students. Argyle (1990), Diener (1984), Diener et al (1992); Emmons and Diener (1986), Myers

and Diener, (1995) came with the consistent result that extraversion tends to predispose people toward positive affect regardless of the level of social contact. Joseph P. (1990) conducted a study on 137 students who completed the Eysenck Personality questionnaire and found that, impulsive subjects were neurotic extraverts and anxious subjects were neurotic-introverts.

Ugur Sak (2004) conducted a study to examine the personality type of 5,723 gifted adolescents. The most common personality types among gifted adolescents were "Intuition" and "Perceiving." They were higher on Introversion, Intuition, Thinking, and Perceiving dimensions of the personality scales of the Myers-Briggs Type Indicator (MBTI) when compared to general high school students. The gifted males were higher than the gifted females in the Perceiving dimension. Ugur Suk (2004) found that gifted females were significantly higher in Extraversion, Intuition and Feeling dimension when compared to the gifted males ( $p < .01$ ). There were no significant differences between gifted females and gifted males in the judging-perceiving scale. Dulewicz and Higgs (1999a) demonstrated, in a study of 111 senior and middle managers, and indicated positive relationships between the MBTI feeling pole, and the thinking pole with the EI element of self-awareness.

Garland and Garland (1987) found that the two most common personality types for both business students and non-business students were SFJ and NFJ. Several studies have found that ISTJ, ESTJ, and INTJ are the most prevalent personality types among professional accountants. Professionals and entrepreneurs were high in self-esteem than non-professionals and students who were not entrepreneurially inclined.

Uslaner (1990) used personality and attitudinal variables to study high school student dropout status. The study concluded that male sensing-perceiving type students may be at a higher risk for dropout from traditional high schools. Schweiger and Jago (1982) focused their research on decision-making and problem-solving by using MBTI. Their study indicates that Sensing types were more likely to be more participative than Intuitive types in their choice of autocratic or participative decision-making methods. Seides (1989) found that female participants scored higher than males on the feeling ego function, empathy, cognitive and emotional measures. Seide's study claimed that MBTI personality type ISFJ, INFP and INFJ had the highest scores on emotional empathy and ENFJ, INFP, INFJ, INTJ had the highest scores on cognitive empathy. Ugur Sak et al found a positive correlation between Intuition, Thinking and Emotional Intelligence. Intuitors were more likely to flourish in academics due to their objective and analytical inclination. Kristin Backhaus (2007) examined the role of intuition and cognitive styles and approaches to studying in business education on 222 American undergraduate business students. Kristin reported positive relationship between intuition and grade point average, self confidence and intuition.

Donald H. Saklofske conducted a study on a sample of 354 students to examine the relationship between personality traits and Emotional Intelligence. EI was found to be negatively and significantly correlated with Neuroticism, and positively and significantly correlated with Extraversion, Openness, Agreeableness and Conscientiousness.

### GAPS IN THE REVIEW OF LITERATURE

The gaps in the literature are enumerated clearly below:

- The relationship between emotional intelligence and personality is not that clear and the present research aims to determine the exact connection of emotional intelligence and personality on professionals and non-professional students.
- Studies on the relationship between extraversion and empathy are unclear and confusing. Some studies indicate a positive correlation and some studies indicate a negative correlation.
- Personality type has been shown to impact student performance in introductory economics courses. However, research did not ascertain the degree to which this relationship might vary across professional and non-professional courses.
- Studies in gender differences are inconclusive. Although some research has found that women are more emotionally intelligent than men, other studies have found no significant differences between males and females.

### SIGNIFICANCE OF THE PRESENT STUDY

The present study intends to examine whether there is a significant relationship between an individual's personality and emotional intelligence among professional and non-professional students. This kind of study was not done by the researchers in the past in India. Studies in gender differences are inconclusive. Although some research has found that women are more emotionally intelligent than men, other studies have found no significant differences between genders. In this way this study would also bridge the gap in the review and add to the existing storehouse of knowledge. The study also indicates the personality preferences of professionals and non-professionals. The study can also be used as a basis to indicate the kind of profession; students can join by knowing the personality type. So in this way when there is a proper match, success would emanate. Research studies indicate that despite possessing a high IQ rating, success does not automatically follow. So this particular study enables an individual to realize the need to be emotionally intelligent, or learn the ways to enhance this ability and be prepared for all kinds of novel situations and cope with the situation very effectively and efficiently.

### OBJECTIVE

The objectives of the study are:

1. To study the relationship between Emotional Intelligence and personality within professional students
2. To study the relationship between Emotional Intelligence and personality within non-professional students
3. To study the relationship between Emotional Intelligence and personality within male students
4. To study the relationship between Emotional Intelligence and personality within female students

### SAMPLE

#### PARTICIPANTS

Sample was selected from student population. The total sample comprises 246 students with a mean age of 22.43 of Visakhapatnam district. 68% constitute professional students and 31% constitute non-professional students. The sample was divided into professional students and non-professional students by considering the course that is being pursued by the students. Students pursuing MBA, MCA, B.E and B.TECH constitute professional course holders and students pursuing M.A in Psychology, English Literature, Social Work, Librarian Sciences, and Anthropology are ramified under non-professional course holders taking the Indian education system under consideration. Disproportionate stratified random sampling, a probability sampling method was used to collect the data from student population.

## INSTRUMENTATION

## DEMOGRAPHIC SHEET

Information on biographical variables like age, gender, educational qualification and so on were procured.

**Emotional intelligence scale** developed by Dr.Meera shanker and Dr.Omer Bin Sayeed (2006) was used to examine the emotional intelligence of students. This is 6 point scale with '1' indicating strongly disagree,'2' indicating disagree, '3' indicating mildly disagree, '4' indicating disagree '4' indicating mildly agree '5' indicating agree, '6' indicating strongly agree. The scale consists of 61 items measuring 10 factors such as emotionality and impulsiveness, self- acceptance, problem-solving orientation, self-awareness, self-confidence, decisiveness and Independence, personal fulfillment, empathy, anxiety and stress, assertiveness. The psychometric properties of the items( corrected item to total correlation) and cronbach alpha reliabilities calculated for the subscales were quiet satisfactory. The median corrected item total correlations for ten accepted scales ranged from a minimum of 0.45 to 0.74.

**Myer Briggs Type Indicator Form G** developed by Isabel Myers and Katherine Briggs (1977) is used to measure the personality preference on 4 dichotomies that includes extraversion vs. introversion (E-I), sensing vs. intuition (S-N), thinking vs. feeling (T-F), judging vs. perceiving (J-P).This questionnaire consists of 126 items.

## ANALYSIS OF DATA

Data analysis was carried out by using SPSS 16.0 version.

- Pearson product moment correlation was used to examine the relationship between Emotional Intelligence and Personality of professional and non-professional students.

**TABLE 1: INDICATING CORRELATION BETWEEN EMOTIONAL INTELLIGENCE AND PERSONALITY WITHIN MALE GROUP**

EMOTIONAL INTELLIGENCE FACTORS	PERSONALITY DIMENSIONS							
	Extraversion	Introversion	Sensing	Intuition	Thinking	Feeling	Judging	Perceiving
Emotionality and Impulsiveness	.274**	-.298**	-.061	-.059	.052	-.127	.045	-.079
Self- Acceptance	.241**	-.197 *	-.103	-.009	.055	.020	.106	-.065
Problem Solving Orientation	.154	-.121	-.061	-.027	-.008	-.069	.150	-.085
Self-Awareness	.129	-.120	.049	-.041	-.031	-.035	.178*	-.146
Self-Confidence	-.050	.078	-.007	-.090	-.034	.014	.122	-.084
Decisiveness and Independence	.154	-.184*	-.028	-.028	.146	-.150	.008	.008
Personal Fulfillment	.209*	-.278*	-.080	-.005	-.007	-.120	-.049	.039
Empathy	-.091	.063	.035	-.067	-.303**	.118	.028	-.105
Anxiety and Stress	-.091	.063	.035	-.067	-.303**	.118	.028	-.105
Assertiveness	.062	-.109	-.152	.041	.034	-.155	.053	-.097

\*P<0.05, \*\*p<0.01

The above table 1 indicates that there are significant correlations within male group between emotional intelligence factors and personality dimensions. There is a significant positive correlation between extraversion and emotionality & impulsiveness (.274, p<.01) and self-acceptance (.241, p<.01), personal fulfillment (.209, p<.05) within male groups. This indicates that male students showing a high preference for extraversion is happier, more impulsive, and has a high positive self concept. This finding is consistent with the previous finding arrived by Eysenck, Pearson, Easting, & Allsopp, (1985).

Self awareness is positively correlated with judging (.178, p<.05) and this indicates that male group showing a high personality preference for judging are high in self monitoring their strengths and limitations.

There is also a significant negative correlation between introversion and emotionality & impulsiveness (-.298, p<.01), self-acceptance (-.197, p<.01), decisiveness and independence (-.184\*, p<.01), personal fulfillment (-.278, p<.05) within male group supporting the previous findings inferred by Malcolm Higgs, Dulewicz and Higgs (1999). This indicates that male group showing a high preference for introversion is less impulsive, less happy and less likely to accept themselves due to negative self concept. Male students also have difficulty in making decisions.

There is a significant negative correlation between thinking and empathy and anxiety & stress (-.303, p<.01) and this indicates that male group showing a high preference for thinking are less empathetic and are less likely to feel anxious and stressed. Roberta Bampton, (1999), Paul (2007) found a negative correlation between thinking and empathy and anxiety & stress.

**TABLE 2: INDICATING CORRELATION BETWEEN EMOTIONAL INTELLIGENCE AND PERSONALITY WITHIN FEMALE GROUP**

EI FACTORS	PERSONALITY DIMENSIONS							
	Extraversion	Introversion	Sensing	Intuition	Thinking	Feeling	Judging	Perceiving
Emotionality and Impulsiveness	.140	-.200*	-.057	.189	-.095	.148	.301**	-.295**
Self- Acceptance	.372**	-.353**	-.022	-.013	-.187	.154	.315**	-.282**
Problem Solving	.283**	-.311**	-.061	-.045	-.127	.082	.138	-.140

<b>Orientation</b>								
<b>Self-Awareness</b>	<b>.419**</b>	<b>-.432**</b>	-.060	.094	-.062	.162	<b>.282**</b>	<b>-.269**</b>
<b>Self-Confidence</b>	<b>.348**</b>	<b>-.429**</b>	.023	.146	-.170	<b>.239*</b>	<b>.197*</b>	-.161
<b>Decisiveness and Independence</b>	.107	-.111	-.148	.117	<b>.228*</b>	<b>-.252**</b>	<b>.214*</b>	<b>-.263**</b>
<b>Personal Fulfillment</b>	<b>.268**</b>	<b>-.320**</b>	-.009	.052	-.109	.077	-.100	.068
<b>Empathy</b>	-.126	.086	.188	-.030	<b>-.195*</b>	<b>.197*</b>	.183	<b>-.198*</b>
<b>Anxiety and Stress</b>	-.126	.086	.188	-.030	<b>-.195*</b>	<b>.197*</b>	.183	<b>-.198*</b>
<b>Assertiveness</b>	<b>.231*</b>	<b>-.285**</b>	-.072	.005	-.003	-.040	.114	-.157

\*P<0.05, \*\*p<0.01

The above table (2) indicates that there are significant positive and negative correlations within female group on Emotional Intelligence factors and personality dimensions.

There is a significant negative correlation between introversion (**-.200, p<.05**), perceiving (**-.295\*\***, **p<.01**) and emotionality and impulsiveness. This indicates that female group showing a high preference for introversion and perceiving are less likely to be impulsive. There is also a significant negative correlation between introversion (**-.353\*\***, **p<.01**), perceiving (**-.282\*\***, **p<.01**) and self- acceptance within female students. This indicates that female students showing a high personality preference for introversion and perceiving are less likely to accept themselves.

There is a significant negative correlation between introversion and problem-solving (**-.311\*\***, **p<.01**), self-awareness (**-.432\*\***, **p<.01**), self-confidence (**-.429\*\***, **p<.01**), personal fulfillment (**-.320\*\***), assertiveness (**-.285\*\***, **p<.01**), emotionality & impulsiveness (**-.200\***, **p<.05**) and this indicates that female group showing a high preference for introversion are less confident, less assertive, and have poor problem solving ability. There is a negative correlation between thinking and empathy (**-.195\***, **p<.01**), anxiety and stress (**-.195\***) within female group. This shows that female students showing a high preference for thinking are less empathetic and less anxious.

There is a significant positive correlation between extraversion and self- acceptance (**.372\*\***, **p<.01**), problem solving (**.283\*\***, **p<.01**), self-awareness (**.419\*\***, **p<.01**), self-confidence (**.348\*\***, **p<.01**), assertiveness (**.231\***, **p<.05**), personal fulfillment (**.268\*\***, **p<.01**) and this indicates that female group showing a high preference for extraversion are very confident, assertive, happy and have high problem solving ability and this is consistent with the earlier studies conducted by Adriane Arteche, Brackett, Nezlek, (2004).

Judging is positively correlated with emotionality & impulsiveness (**.301**, **p<.01**), self-acceptance (**.282\*\***, **p<.01**), self-confidence (**.197\***, **p<.01**), decisiveness & independence (**.214\***, **p<.01**), and this indicates that female group showing a high preference for judging is very self reliant, confident.

There is also a significant positive correlation between feeling and self-confidence (**.239\***, **p<.01**), empathy (**.197**, **p<.05**), anxiety and stress (**.197\***, **p<.05**) and this indicates that female students showing a high preference for feeling is more empathetic, anxious and stressed. There is a significant negative correlation between feeling and decisiveness & independence (**-.252\*\***, **p<.01**) and this indicates that female group showing a high personality preference for feeling is indecisive and dependent.

TABLE 3 INDICATING CORRELATION BETWEEN EMOTIONAL INTELLIGENCE AND PERSONALITY WITHIN PROFESSIONAL GROUP

EI FACTORS	PERSONALITY DIMENSIONS							
	Extraversion	Introversion	Sensing	Intuition	Thinking	Feeling	Judging	Perceiving
<b>Emotionality and Impulsiveness</b>	<b>.228**</b>	<b>-.256**</b>	-.014	-.028	.017	-.047	<b>.166*</b>	<b>-.182*</b>
<b>Self- Acceptance</b>	<b>.263**</b>	<b>-.225**</b>	-.075	-.007	-.046	.082	<b>.186*</b>	-.151
<b>Problem Solving Orientation</b>	<b>.229**</b>	<b>-.177*</b>	-.057	-.043	-.031	.026	.119	-.077
<b>Self-Awareness</b>	<b>.239**</b>	<b>-.249**</b>	.022	-.006	-.069	.049	<b>.202**</b>	<b>-.187*</b>
<b>Self-Confidence</b>	.023	-.005	.005	-.054	-.031	.039	.138	-.098
<b>Decisiveness and Independence</b>	.123	-.141	-.048	.007	<b>.217**</b>	<b>-.219**</b>	<b>.182*</b>	<b>-.189*</b>
<b>Personal Fulfillment</b>	<b>.249**</b>	<b>-.270**</b>	.002	-.008	.077	.016	-.004	.041
<b>Empathy</b>	-.068	.044	.080	-.102	<b>-.264**</b>	<b>.191*</b>	.064	-.136
<b>Anxiety and Stress</b>	-.068	.044	.080	-.102	<b>-.264**</b>	<b>.191*</b>	.064	-.136
<b>Assertiveness</b>	.115	-.142	-.142	.046	-.033	-.018	<b>.158*</b>	<b>-.209**</b>

\*P<0.05, \*\*p<0.01

The above table (3) indicates that there are significant positive and negative correlations between EI and personality dimensions within professional students. There is a significant positive correlation between extraversion and emotionality and impulsiveness (**.228\*\***, **p<.01**), self-acceptance (**.263\*\***, **p<.01**), problem-solving (**.229\*\***, **p<.01**), self-awareness (**.239\*\***, **p<.01**), personal fulfillment (**.249\*\***, **p<.01**), within professional group and this indicates that professional group showing a high preference for extraversion were very impulsive, happy and more likely to accept themselves. They also have high levels of problem solving ability (Shipper and Davy, 2002)

There is also a significant positive correlation between judging and emotionality and impulsiveness (**.166\***, **p<.05**), self-acceptance (**.186\***, **p<.05**) decisiveness and independence (**.182\***, **p<.05**), assertiveness (**.158\***, **p<.05**) self-awareness (**.202\*\***, **p<.01**) and this indicates that professional students showing a high preference for judging are very impulsive, decisive, assertive, independent and have positive self concept.

There is a significant negative correlation between perceiving and emotionality and impulsiveness ( $-.182^* p<.05$ ) within professional group. Perceiving is negatively correlated with self-awareness ( $-.187^*$ ,  $p<.05$ ), decisiveness and independence ( $-.189^*$ ,  $p<.05$ ), empathy ( $-.198^*$ ,  $p<.05$ ), assertiveness ( $-.209^{**}$ ) within professional group and this indicates that professional group showing a high preference for perceiving are less empathetic, less impulsive, indecisive, unassertive, and unaware of their strengths and limitations.

There is a positive correlation between thinking and decisiveness and independence within professional group ( $.217^{**}$ ,  $p<.01$ ) and this shows that professionals showing a personality preference for thinking are decisive and self-reliant. There is also a negative correlation between thinking and empathy ( $-.264^{**}$ ,  $p<.01$ ), anxiety and stress ( $-.264^{**}$ ,  $p<.01$ ), within professional group and this indicates that professional students showing a high preference for thinking are less empathetic and less anxious and stressed.

There is also a significant positive relationship between feeling and empathy ( $.191^*$ ,  $p<.05$ ), anxiety and stress ( $.191^*$ ,  $p<.05$ ) within professional group and this indicates that professional students showing a high preference for feeling are more empathetic, anxious and stressed.

There is also a negative correlation between introversion and emotionality and impulsiveness ( $-.256^{**}$ ,  $p<.01$ ), self-acceptance ( $-.225^{**}$ ,  $p<.01$ ), problem-solving factor ( $-.177^* p<.05$ ), self-awareness ( $-.249^{**}$ ,  $p<.01$ ), personal fulfillment within professional group ( $-.270^{**}$ ,  $p<.01$ ), and this indicates that professional group showing a high preference for introversion are less impulsive, less happier with themselves due to negative self-concept. They have very poor problem-solving ability and do not introspect their strengths and weaknesses.

There is also a significant negative correlation between feeling and decisiveness and independence within professional group ( $-.219^{**}$ ,  $p<.01$ ). This indicates that professional group showing a high preference for feeling are indecisive and dependent.

TABLE 4 INDICATING CORRELATION BETWEEN EMOTIONAL INTELLIGENCE AND PERSONALITY WITHIN NON-PROFESSIONAL GROUP

EI FACTORS	PERSONALITY DIMENSIONS							
	Extraversion	Introversion	Sensing	Intuition	Thinking	Feeling	Judging	Perceiving
Emotionality and Impulsiveness	.159	-.206	-.161	.174	-.107	.158	.101	-.118
Self-Acceptance	<b>.332**</b>	<b>-.287*</b>	-.042	-.041	-.098	.189	.196	-.143
Problem Solving Orientation	.102	-.177	-.043	-.042	-.164	.062	.220	-.176
Self-Awareness	.215	-.157	-.031	.023	-.035	.202	<b>.235*</b>	-.175
Self-Confidence	.119	-.186	-.020	-.007	<b>-.257*</b>	<b>.235*</b>	.151	-.108
Decisiveness and Independence	.163	-.191	-.146	.079	.126	-.169	-.067	.049
Personal Fulfillment	.142	<b>-.272*</b>	-.172	.054	-.023	-.029	<b>-.235*</b>	.120
Empathy	<b>-.229*</b>	<b>.228*</b>	.132	.002	<b>-.287*</b>	<b>.249*</b>	.119	.110
Anxiety and Stress	<b>-.229*</b>	<b>.228*</b>	.132	.002	<b>-.287*</b>	<b>.249*</b>	.119	.110
Assertiveness	.148	<b>-.233*</b>	-.059	-.030	.108	-.191	-.090	.094

\* $p<.05$ , \*\* $p<.01$

The above table indicates that there are significant positive and negative correlations within non-professionals on emotional intelligence factors and personality dimensions.

There is a significant positive correlation between extraversion and self-acceptance ( $.332^{**}$ ,  $p<.01$ ) within non-professional group. This shows that non-professionals showing a high preference for extraversion are more likely to accept themselves despite some strengths and weaknesses. There is a significant negative correlation between extraversion and empathy and anxiety and stress ( $-.229^*$ ), and this shows that non-professionals showing a high preference for extraversion are less empathetic, less anxious.

There is a significant negative correlation between introversion and self-acceptance ( $-.287^*$ ,  $p<.05$ ), personal fulfillment ( $-.272^*$ ,  $p<.05$ ), assertiveness ( $-.233^*$ ,  $p<.05$ ) and this shows that non-professional group showing a high preference for introversion are unhappy, less assertive and are less likely to accept themselves (Furnham, Adrain, 1993). There is a significant positive correlation between introversion and empathy, anxiety and stress factor ( $.228^*$ ,  $p<.05$ ), and this indicates that non-professional group showing a high preference for introversion are more empathetic, anxious and stressed and this is consistent with earlier studies conducted by Joseph P. (1990)

There is a significant negative correlation between thinking and self-confidence ( $.235^*$ ,  $p<.01$ ), empathy, anxiety and stress factor ( $-.287^*$ ,  $p<.05$ ) and this indicates that non-professional group showing a high preference for thinking are less likely to understand others' feelings and feel less stressed.

There is a significant positive correlation between feeling and self-confidence ( $-.257^*$ ,  $p<.05$ ), empathy ( $.249^*$ ,  $p<.05$ ), anxiety and stress factor ( $.249^*$ ,  $p<.05$ ), and this shows that non-professional group showing a high preference for feeling are empathetic, confident and are more likely to be anxious.

There is a significant positive correlation between judging and self-acceptance within non-professional groups ( $.235^*$ ,  $p<.05$ ), and this shows that non-professional group showing a high preference for judging are high in self-monitoring and have good problem-solving ability.

There is a significant negative correlation between judging and personal fulfillment factor within non-professional groups ( $-.235^*$ ,  $p<.05$ ), and this shows that non-professional group showing a high personality preference for judging are more likely to be prone to feelings of apathy, disappointment.

## IMPORTANT FINDINGS

### GENDER:

- There is a positive correlation between extraversion and self-acceptance, personal fulfillment on both male and female groups.
- There is a negative correlation between introversion and impulsiveness, self-acceptance, decisiveness, personal fulfillment factor on both male and female groups.

- There is a negative correlation between thinking and empathy, anxiety factor on both male and female groups.
- There is a positive correlation between judging and impulsiveness, self acceptance, self-awareness, decisiveness within the female group.

#### PROFESSIONAL VERSUS NON PROFESSIONAL GROUP:

- There is a positive correlation between extroversion and other EI factors like impulsiveness, self acceptance, problem solving, self awareness, personal fulfillment within professional students. But more number of negative correlations is seen between extroversion and empathy, anxiety among non-professionals.
- There is a negative correlation between introversion and impulsiveness, self acceptance, problem solving, self awareness; personal fulfillment among professionals. The above relationship is not true for nonprofessionals.

#### CONCLUSION

Results indicate significant positive and negative correlations within professional and non-professional student groups on some factors of Emotional Intelligence and Personality. This study would act as an alarm to educational setting in terms of identifying students who are emotionally weak and give some interventions immediately to enhance their quality of life and psychological well-being. As the pressures for professionals are very high when compared with non-professionals, professionals should be trained by teachers to handle all kinds of novel situations. These kinds of training sessions or simulations would not only act as preventive measures but promotes professional success in their future endeavors.

#### SUGGETIONS FOR FUTURE RESEARCH

- There appears a need to conduct future studies in a wider range of organizations, in order to test further the findings and build a more generalisable basis for interpretation of the results. This development of a more generalisable level of result would be aided if such future studies would be conducted with more balanced populations in terms of gender
- Future studies can examine the concept of emotional intelligence within the framework of pharmacy or pharmacy education as there is no research done on that area. .
- This research does not consider factors like age and ethnic background, which might have an impact on the emotional intelligence and personality type.
- Future studies should investigate steps that management schools can take to help alleviate these emotional problems.

#### REFERENCES

- 1..Abowitz, Deborah, Knox, David. (2003). Goals of college students: some gender difference students. *Journal of college students*, 28 (1), 1-2.
2. Arnod, Thomas, Many (2004) .Understanding Emotional Intelligence Can Help Alter Problem Behavior. *Journal of Personality & Individual Differences*, 30 (5), 36-40.
- 3.Daniela Beckmann, Lukas Menkhoff, Bern. (2008). Will Women Be Women? Analyzing the Gender Difference among Financial Experts. *The Journal of Management Development*, 61(3) 364.
4. David, E. J. R, Okazaki, Sumie, Saw, Anne. (2009). Bicultural self-efficacy among college students: Initial scale development and mental health correlates, *Journal of Counseling Psychology*, 56(2), Apr 2009, 211-226.
5. David.R, Caruso, John .D, Mayer, Peter Salovey (2002). Relation of an Ability Measure of Emotional Intelligence to Personality. *Journal of personality assessment*, 79(2), 306–320.
- 6.Feingold, Alan. (1994). Gender differences in personality: A meta-analysis. *Psychological Bulletin*, 116(3), 429-456.
7. Gary J.,Sipps .(1991) .The Multifactorial Nature of Extraversion-Introversion in the Myers-Briggs Type Indicator and Eysenck Personality Inventory. *Journal of Psychology*, 122-127.
8. Isabel Briggs Myers, Mary.H, Mccauley, Naomil.Quenk Allen.L, Hammer (1998). A Guide to the development and use of the Myers-Briggs Type Indicator.MBTI Manual, 3,7-566.
9. John D. Mayer, Peter Salovey, David Caruso. (1991). Models of emotional intelligence. U.K, Cambridge university press.
10. Lightsey, Owen Richard, Hulsey .C, Duncan. (2002).Impulsivity, coping, stress, and problem gambling among university students. *Journal of Counseling Psychology*, 49(2), 202-211.
11. Lucas, Richard .E, Fujita, Frank. (2000). Factors influencing the relation between extraversion and pleasant affect. *Journal of Personality and Social Psychology*, 79(6), Dec 2000, 1039-1056
12. Omer Bin Sayeed, Meera Nayer. (2006). Assessing emotionally intelligent managers: development of an inventory and relationship with manager's professional development. *Journal of organizational behavior*, 12-18
13. Paul, R.Pearson (1990). Is Impulsiveness Aligned With Psychoticism or With Extraversion? *Journal of Psychology*, 124(1), 134-138.
14. Southard, Sherry. (2005). Technical versus Non-technical Students: Does Emotional Intelligence Matter? *Journal of Accounting Education*, 52(1), 104-105.
15. Yao-Hui Liang, 2007.*The Relationship between Personality Type and Emotional Intelligence in A sample of College and University Faculty in Taiwan*. Ph.D. Texas A&M University.

## ORGANIZATION CULTURE IN MANAGEMENT INSTITUTIONS WITH SPECIAL REFERENCE TO JAIPUR, RAJASTHAN

**PROF. ANIL MEHTA**

**COORDINATOR, SYLLABUS DESIGNING COMMITTEE (M.B.A.), CENTRAL UNI. OF RAJASTHAN, JAIPUR  
PROFESSOR, DEPARTMENT OF BUSINESS ADMINISTRATION  
UNIVERSITY OF RAJASTHAN  
JAIPUR**

**DR. PANKAJ NAGAR**

**ASST. PROFESSOR, DEPARTMENT OF STATISTICS  
UNIVERSITY OF RAJASTHAN  
JAIPUR**

**BHUMIJA CHOUHAN**

**FACULTY  
INTERNATIONAL SCHOOL OF INFORMATICS AND MANAGEMENT  
JAIPUR**

### ABSTRACT

*Management is an exciting field where you can have an immediate impact on the operations of any business. The field of Management is a constantly changing hotbed of activities. New tools and techniques are continually being introduced to improve the efficiency, productivity, and profitability of any organization. All organizations and their departments, functions, or groups use Management methodologies, which include problem solving techniques and guidelines for various related activities. This research throws light on organization culture and its impact on management education of Rajasthan employee's affectivity and efficiency. It analyses the importance of healthy organization culture, improvement of employees and organizational efficiency. The research paper proposes various ways of building an innovative organization culture and importance of quality of work life. The researcher has done a critical study of the impact of organization culture on faculty members of selected institution of Rajasthan. Professors, Readers and Lecturers working with selected management colleges of Rajasthan have been surveyed and their working condition, organization culture and satisfaction etc. has been deliberated. The purpose of research is to discover answers to the questions through the application of scientific procedures.*

### KEYWORDS

Correlation & Regression Analysis, Efficiency, Leadership Style, Organizational Culture, Work Satisfaction.

### INTRODUCTION

The conceptualization of culture within the context of an organization is primarily adapted from the field of anthropology and sociology. Culture has typically been defined as the traditional ideas and values of a group of people. In other words, a group of people will develop a system of shared values that guides the activities of its members. S. A. Sackmann (1997) identifies three approaches as using a holistic perspective or a cognitive perspective, both of which describe the internal state of culture members. Not all cultures agree on what is good, what is normal, and how things "should be done."

According to Kroeber and Kluckhohn (1952), "Culture consists of patterns, explicit and implicit, of and for behavior acquired and transmitted by symbols, constituting the distinctive achievement of human groups, including their embodiment in artifacts. The essential core of culture consists of traditional (i.e. historically derived and selected) ideas and especially their Artifacts and social Institutions Values, beliefs and assumptions Behavior of people attached values. Culture systems may, on the one hand, be considered as products of action, and on the other, as conditioning elements of further action." The Indian perspective of culture given by Sinha (2000) suggests, "Culture consists of totality of assumptions, beliefs, values, social systems and institutions, physical artifacts and behavior of people, reflecting their desire to maintain continuity as well as to adapt to external demands."

The culture is a hidden but unifying force that provides meaning and direction to a system of shared meanings, or systems of beliefs and values that ultimately shapes employee behavior. Schein (1985, 1992) defined organizational culture as a pattern of basic assumptions invented, discovered or developed by a given group as it learns to cope with its problem of external adaptation and internal integration. These values are then taught to new members in the organization as the correct way to think and feel in relation to those problems. For Schein (1999), culture is the sum of all the shared, taken for granted assumptions that a group has learnt throughout its history. Also, culture is determined to be the residue of success. Culture is also the structure and control system to generate behavioral standards.

A more formal definition of culture that the researcher identifies with is that "organizational culture is a pattern of basic assumptions that a given group has invented, discovered, or developed in learning to cope with its problems of external adaptation and internal integration, and that have worked well enough to be taught to new members as the correct way to perceive, think and feel in relation to those problems" (Schein, 2004).

Organization culture can be a set of key values, assumptions, understandings and norms that is shared by members of an organization. Organization values are fundamental beliefs that an organization considers being important, that are relatively stable over time, and they have an impact on employee's behaviors and attitudes.

Organization Norms are shared standards that define what behaviors are acceptable and desirable within organization. Shared assumptions are about how things are done in an organization. Understandings are coping with internal or external problems uniformly.

#### **MANAGEMENT EDUCATION IN RAJASTHAN**

Study of management is among one of the sectors in Rajasthan that is enjoying rapid development. Over the last few years, opportunities for students who aspire to pursue career in management has grown manifold. With the increasing number of management institutes and improvement in the quality of education being imparted, local as well as multinational companies are finding the competence of management students in Rajasthan quite satisfactory. The proof of this fact is that most of the students are being hired directly through campus placement after completion of their management studies. In the modern economic scenario all over the world- **"Management" – as a stream of education and training has acquired new dimensions.**

Management is an exciting field where you can have an immediate impact on the operations of any business. The field of Management is a constantly changing hotbed of activities. New tools and techniques are continually being introduced to improve the efficiency, productivity, and profitability of any organization. All organizations and their departments, functions, or groups use Management methodologies, which include problem solving techniques and guidelines for various related activities.

The modern day Business Managers are required to have proficiency in:

- Functional knowledge of a business organization.
- In-depth knowledge of minimum one discipline of Management.
- The ability to adapt to new environments at micro and macro levels.
- Problem analyzing and solving.
- Inter-personal skills.
- Knowledge of functional interdependencies and adaptability.
- Communication skills.
- Self-confidence and motivational skills.
- Drive to succeed and control with initiatives.

Management can be christened as an art of conducting and directing the modern day organizational, businesses and other related activities. It characterizes the process of leading and directing various organizational activities - often a business and its various resources like human, financial, material, intellectual and so on. Management encompasses five basic functions such as Planning, Organizing, Leading and Coordinating.

An individual can achieve proper knowledge and training about management through management education. Educational institutions that teach management are usually called "Business Schools". A business school is normally a university-level institution that teaches topics such as accounting, finance, marketing, organizational behavior, strategic planning, quantitative methods, etc. These include schools of "business", "business administration", and "management".

#### **OBJECTIVE OF STUDY**

The purpose of research is to discover answers to the questions through the application of scientific procedures. The main aim of research is to find out the truth which is hidden and which has not been discovered yet. Though each research study has its own specific purpose, then also research objectives can be categorized into following groups:

- To gain familiarity with a phenomenon or to achieve new insights into it.
- To portray accurately the characteristics of a particular individual situation or a group.
- To determine the frequency with which something occurs or with which it is associated with something else.
- To test a hypothesis of a casual relationship between variables.

Therefore the objectives of proposed study are on the basis of portraying accurately the characteristic of faculty member's of selected management colleges of Rajasthan to know their organization culture. The objectives are as follows:

1. To study management education in Rajasthan
2. To study organization culture for faculty members of management institutions of Rajasthan.
3. To determine major factors contributing to organization culture.
4. To suggest improvements in the organization culture of faculty members of management institutions of Rajasthan

#### **HYPOTHESIS OF STUDY**

Hypothesis is usually considered as the principal instrument in research. Its main function is to suggest new experiments and observation. In fact, many experiments are carried out with the deliberate objective of testing hypothesis. Testing hypothesis enables researcher to make probability statements about population (Probability Distribution) or its parameter(s) . The hypothesis may not be proved absolutely, but in practice it is accepted if it has withstood a critical testing. Hypothesis means mere assumption or some supposition to be proved or disproved. Hypothesis can even be defined as a propositions set forth as an explanation for the occurrence of some specified group of phenomena either asserted merely as a provisional conjecture to guide some investigation or research, or it can also be accepted as highly probable in the light of established facts.

- Faculty Members of Management Institutes understand the need Organization Culture for better professional environment in the institution.
- Leadership style is the Major Determinant of Organization Culture.

Variables which affect the organization culture of any institutions/organization are as follows:

- PWR - Power
- FOCUS - Focus on Strategy
- TRANSPRY- Transparency
- RESPBLY - Responsibility
- COMMITMNT- Involvement of Commitment
- L\_TRUST - Level of Trust
- PARTNRNG – Partnering
- SHARING - Sharing of relevant Information
- L\_STYLE – Leadership Style
- EFFCNCY – Efficiency
- WORK\_SAT Work Satisfaction

## METHODOLOGY

The current study aims at measuring the organization culture and its effect on Professors and Lecturer, and offering recommendations for improving the same and thus deductive methodology would be the appropriate choice as theory obtained from published works is tested empirically during the research. The inductive methodology is not chosen for this study because generation of new theory is not the purpose of this study.

Various methodologies like graphs, matrices, comparison tables for analyses of responses of various questions is being used after questionnaire survey. The research is under descriptive study which includes large population studies in which data on lots of different variables is being collected.

The statistical techniques which are being used are:

- Descriptive Statistics (Univariate & Bivariate Data-Analysis)
- Test of Significance

The variables like leadership skills, power, decision making authority, suggestions in strategy making, value of accountability, employee – employer relationship, involvement and commitment, personal responsibility, trust, sharing of information and factors of OCTAPACE is taken into consideration to analyze the data collected during research work.

## SAMPLING METHOD

Data is collected from the academicians of most of the Management Institutions of Jaipur, on the basis of questionnaire prepared with the help of instruments like Organizational Climate Survey and Organization Diagnosis & Instruments for HRD and OD of Professor Udai Pareek published by Tata Mc Graw Hill etc.

Probability and non-probability sampling are the two methods that are used for social researches. Probability sampling is "a sampling technique in which every member of the population has a known, non-zero probability of selection." (White & McCain 2000). Whereas in non-probability sampling units of the sample are selected on the basis of personal judgment or convenience. Probability of any particular member chosen is unknown within non-probability sampling. Since all the selected Management Institutions are felt behaving in a similar manner because they all are governed by the common Government body AICTE (All India Council of Technical Education). Thus need, to apply a certain sampling technique for the collection of data, was not considered so important. But the criteria of random selection of respondent, was considered in different manner.

The questionnaire was distributed to all the existing teaching staff and a dead line is fixed to receive the responses. Those entire respondents who responded within the deadline, have been considered as part of the study. Due to the limitation of resources, time and the availability of coverage area, convenience sampling have been considered a better alternative to be used for collecting information from the respondents. It was earlier decided that a sample of 50% of total member (273) will be considered as an appropriate sample for the study. But fortunately the respondents took a very good interest in providing the required information. 190(69.6%) faculty members, responded within the deadline. Therefore, the sample of size 190 academicians out of 273 is considered in this study consisting of Professors, Associate Professors, Assistant Professors and other teaching staff of various AICTE approved institutions of Jaipur. It is understandable that the sample represents the population as the number of actual faculty members working in these institutions. The institutes which were selected for the data collection are performing well in Rajasthan are mentioned in Appendix A.

## SCALE

The study has used a variety of questions to find out the complete information about the topic under research. Apart from dichotomous and multiple-choice answers of the questions, interviews which include statements of the respondents required to rate on the basis of different scales like the likert scale, rating scale etc are also being used.

## SCOPE OF STUDY

Organization Culture plays an important role to identify and examine the internal environment of any organization. Organization Culture tells information of the employees working. Organization culture is today's hot issue to be discussed by various famous companies to increase the productivity of employees because work culture is the major player which puts impact on the working style and art of employees.

Organization culture performs a number of functions in an organization.

- It has a boundary defining role i.e. it creates of distinctions between one organization and others.
- It conveys a sense of identity for organization member.
- It facilitates the generation of commitment to something larger than ones individual self interest.
- It enhances the stability of the social system.

- It lays the stability impact on attitude and behavior.

The complete knowledge of these facts about organization culture and its impact on employees is given the effectiveness and efficiency of both organization; and employees which can list them among the top organization and employees which can list among top organization. So this study holds importance in today's scenario because work culture is directly related with the satisfaction of employees and productivity of employee.

**LIMITATIONS OF STUDY**

1. The collection of data was prolonged because it was lingered by respondents to an extent.
2. Respondents were less cooperative and were more conscious for getting their identity disclosed.
3. Respondents were hesitating to respond openly to the questionnaire.
4. Respondents may be biased. And may not be sincerely responding to the questionnaire survey.

**ANALYSIS AND INTERPRETATION**

According to the study conducted the hypothesis of research can be tested by testing of the equality of mean responses after applying scaling by using t-test ( as sample is large for statistical point of view the population can be easily considered as normally distributed & t-test can be replaced by z-test). The testing technique will differ in different situations so we can consider some of the important situations. A statistical software SPSS (Statistical Packages for Social Sciences) version 16.0 has been used for all statistical analysis.

**Table 1: Descriptive Statistics of Responses with respect to 11 Identified Predictors of Organizational Culture**

Predictors	Mean	Std. Deviation	Lower Limit	Upper Limit
pwr	2.9684	.79286	2.17554	3.76126
focus	3.0681	.78185	2.28625	3.84995
trust	2.9834	.53383	2.44957	3.51723
respblty	2.7826	.58555	2.19705	3.36815
comitmnt	3.2874	.56918	2.71822	3.85658
l_trust	3.0473	.58831	2.45899	3.63561
partnrng	3.0786	.68686	2.39174	3.76546
sharing	3.1645	.51907	2.64543	3.68357
l_style	3.0145	.39029	2.62421	3.40479
effcncy	3.1201	.54517	2.57493	3.66527
work_sat	3.0481	.25751	2.79059	3.30561

**Table 2: Number of Respondents\* with respects to their Average Responses towards the Predictors of Organizational Culture in Management Institutions**

Response	Predictors								
	PO	FS	T	R	IC	LT	P	SI	LS
1-2	10	1	5	5	4	2	6	1	0
2-3	60	80	81	101	33	66	56	55	83
3-4	94	73	96	73	127	103	99	122	105
4-5	25	32	7	10	24	17	25	11	2
Total	189	186	189	189	188	188	186	189	190

\*: The Incomplete responses, with respect to a predictor variable, have not been considered in the analysis

**Figure -1: Average Response of Predictors for Organizational Culture**

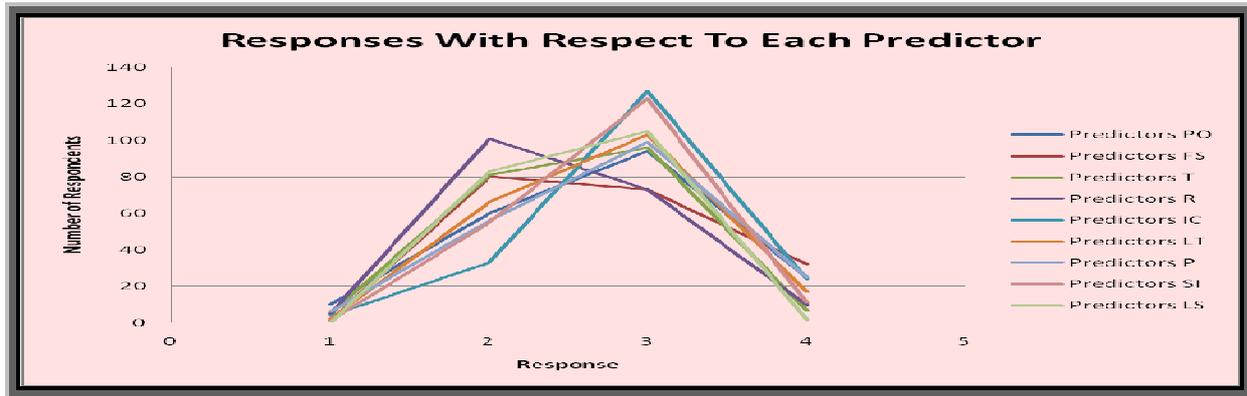


Table 3: Regression Coefficients with other useful Statistics (Output of SPSS)

Model		Unstandardized Coefficients		t	Sig. (p-value)	95% Confidence Interval for B	
		B	Std. Error			Lower Bound	Upper Bound
1	(Constant)	.270	.053	5.065	.000	.165	.375
	work_sat	.913	.017	52.405	.000	.878	.947
2	(Constant)	.142	.030	4.762	.000	.083	.201
	work_sat	.854	.010	85.835	.000	.834	.873
	effcncy	.098	.005	20.959	.000	.089	.108
3	(Constant)	-.001	.002	-.408	.684	-.005	.003
	work_sat	.819	.001	1221.222	.000	.818	.820
	effcncy	.091	.000	294.170	.000	.090	.092
	l_style	.090	.000	208.879	.000	.089	.091

**DISCUSSION**

The results of Table-4 show that there is a significant correlation of ‘Power’ with ‘Focus’, ‘Transparency’, ‘Responsibility’, ‘Level of Trust’, ‘Partnering’ and ‘Leadership Style’. That is, if Power is being raised then automatically Focus on Strategy, Trust, Responsibility, Partnering and Leadership all will get positively affected which all together form a standard of organization culture.

The graph, in Figure-1, represents that faculty member at management institutions in Jaipur City think that sharing of information is the major variable which affects the organization culture; along with sharing of information involvement of commitment does also play a vital role in formation of organization culture. The relationship is very clear that if information would travel properly from top to bottom then the commitment level increases and brings a positive working environment in the organization as it make the employees feel the feeling the part of organization.

Table 4: Correlation Along With Significance Values between Predictors of OC in Management Institutions (Output of SPSS)

Predictor		pwr	focus	trust	respblty	comitmnt	l_trust	partnrng	sharing	l_style	effcncy	work_sat
pwr	Pearson Correlation	1	.102	-.020	.065	-.076	.062	-.056	.125	.189(**)	.014	.447(**)
	Sig. (2-tailed)		.162	.782	.372	.298	.395	.446	.085	.009	.850	.000
focus	Pearson Correlation	.102	1	.002	.009	-.079	.106	-.168(*)	.019	-.084	.066	.378(**)
	Sig. (2-tailed)	.162		.975	.907	.277	.145	.021	.798	.250	.369	.000
trust	Pearson Correlation	-.020	.002	1	-.065	.234(**)	.133	.293(**)	.165(*)	.329(**)	.266(**)	.476(**)
	Sig. (2-tailed)	.975	.907	.277	.145	.021	.798	.250	.369	.000	.000	.000

	Correlation											
	Sig. (2-tailed)	.782	.975		.370	-.001	.068	.000	.023	.000	.000	.000
respblty	Pearson Correlation	.065	-.009	-.065	1	-.080	-.023	-.063	.040	-.070	-.131	.255(**)
	Sig. (2-tailed)	.372	.907	.370		.274	.750	.388	.586	.340	.072	.000
comitmnt	Pearson Correlation	-.076	-.079	.234(**)	-.080	1	.077	.372(**)	.181(*)	.217(**)	.304(**)	.446(**)
	Sig. (2-tailed)	.298	.277	.001	.274		.292	.000	.012	.003	.000	.000
l_trust	Pearson Correlation	.062	.106	.133	-.023	.077	1	-.090	.065	.191(**)	.136	.385(**)
	Sig. (2-tailed)	.395	.145	.068	.750	.292		.215	.374	.008	.060	.000
partnrng	Pearson Correlation	-.056	-.168(*)	.293(**)	-.063	.372(**)	-.090	1	.121	.155(*)	.203(**)	.413(**)
	Sig. (2-tailed)	.446	.021	.000	.388	.000	.215		.096	.033	.005	.000
sharing	Pearson Correlation	.125	.019	.165(*)	.040	.181(*)	.065	.121	1	.051	.117	.470(**)
	Sig. (2-tailed)	.085	.798	.023	.586	.012	.374	.096		.481	.107	.000
l_style	Pearson Correlation	.189(**)	-.084	.329(**)	-.070	.217(**)	.191(**)	.155(*)	.051	1	.188(**)	.287(**)
	Sig. (2-tailed)	.009	.250	.000	.340	.003	.008	.033	.481		.009	.000
effcncy	Pearson Correlation	.014	.066	.266(**)	-.131	.304(**)	.136	.203(**)	.117	.188(**)	1	.282(**)
	Sig. (2-tailed)	.850	.369	.000	.072	.000	.060	.005	.107	.009		.000
work_sat	Pearson Correlation	.447(**)	.378(**)	.476(**)	.255(**)	.446(**)	.385(**)	.413(**)	.470(**)	.287(**)	.282(**)	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	

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

Therefore the faculty members of selected management institutions of Jaipur are aware about organization culture and emphasize on power, information sharing. Depending upon this the level of commitment can build a healthy organization culture in institutions. Table-3 shows the results of Multiple Linear Regression Analysis with the help of SPSS(version 16.0). After three rounds of omission of insignificant predictors (stepwise method), it resolved that only three factors are important to observe an organizational culture in management institutions. These are **Work Satisfaction**, **Efficiency** to execute a job in hand and an appropriate **Leadership**. It predicts that if institution provides good leadership, give responsibility to furnish a job, on the basis of capability of the employees then the employee will complete the job with all its efficiency and may feel work satisfaction. This approach may be observed as a batter tool for maintaining the strong organization culture in the management institutions..

### SUGGESTIONS

There were some suggestions given by faculty members to improve the organization culture in long course of time. These are as follows:

- The vision, mission, and outcomes should be clear and well defined to have better organization culture.
- Delegation of decision making authority should be done to get the things done accurately and in time this can also form a support to improve organization culture.
- There should collaboration of individual and organizational goals so that staff members can work in harmony to improve the work conditions of the colleges as well as their own.
- Leadership supporting a quality culture should be implemented in government colleges which can be a motivation for staff members to improve their organization culture.
- The information about rules and regulation should be given well in advance to inculcate good and healthy organization culture in the institution.
- Suggestion of employees should be welcomed and implemented at its earliest to make the work environment outstanding,
- Team work where every member of the team should perform his/her duties.
- There should be monthly interaction among staff members to discuss on various issues and future planning which can be good for the institution as well as bring the staff together building strong relationship among the members and the management.
- Social gathering is the best medicine for any to hold in a strong bond so social staff gathering can show the way to good and strong relationship with each other which is very necessary for maintaining good work environment and organization culture.
- Well defined job objectives with indicators can always guide to better organization culture and satisfied staff members so it should often be performed in management institutions.
- Appraisal is the key for success of any operation so constant monitoring and feedback system should be sustained in the institutions to maintain excellent organization culture. As on basis of appraisal the problem areas can be identified and lacunae's can be eradicated by group discussions, but appraisal should be always handled sophisticatedly.
- There should be proper distribution of workload and non performance of assigned duties should be taken strictly into notification without any biasness.
- Remuneration system should be improved to attract competent and qualified people in education sector.

### REFERENCES

1. Kroeber, A. L. and Kluckhohn, C. (1952), Culture: a critical review of concepts and definitions, Vintage Books.

2. Sackmann, S. A. (Ed.). (1997). Cultural complexity in organizations: Inherent contrasts and contradictions. Thousand Oaks, CA: Sage Publications
3. Schein, E. H. (1985), Organisational culture and leadership(1<sup>st</sup> Edition),San Fancisco, Jossey – Bass, (*Vidyasagar University Journal of Commerce*).
4. Schein, Edger H.(1992), Organisational Culture and Leadership (2<sup>nd</sup> Edition), San Fransisco, Jossey-Bass.
5. Schein, Edger H.(1999),Business Consultants; Social Psychology, Addison Wisley
6. Schein, Edger H.(2004), Organisational Culture and Leadership (3<sup>rd</sup> Edition), San Fransisco, Jossey-Bass.
7. White,H.D, & McCain,K.W. (2000), In memory of Belver C. Griffith, Journal of the American Society for Information Science, Volume 51, Issue 10, pages 959–962.

#### APPENDIX A

1. Compucom Institute of Information Technology &Management, Jaipur.
2. Apex Institute of management & Science, Jaipur
3. International School of Informatics & Management, Jaipur
4. The Institute of Certified Management Accountants of India, Jaipur
5. Subodh Institutes of Management & Career Studies, Jaipur
6. M.K.M. Institute of Management, Jaipur
7. Jaipur Institute of Integrated Learning in Management, Jaipur
8. Jaipuria Institute of Management, Jaipur
9. Institute of Information and Management Sciences, Jaipur
10. Deepshikha College of Technical Education, Jaipur
11. Jaipur Engineering College, Jaipur
12. Yagyavalkya Institute of Technology, Jaipur
13. Arya College of Engineering & InformationTechnology, Jaipur
14. Gyan Vihar School of Engineering and Technology, Jaipur
15. Maharshi Arvind institute of Engineering & Technology, Jaipur
16. Seedling Academy of Design, Technology & Management, Jaipur
17. Global Institute of Technology, Jaipur
18. Shankara Institute of Technology, Jaipur
19. Jaipur Engineering College & Research Centre, Jaipur
20. Rajasthan Institute of Engineering and Technology, Jaipur
21. Kautilya Institute of Technnology & Dngineering, Jaipur
22. Swami Keshavanand Institute of Technology Management & Gramothan, Jaipur.
23. Poornima School of Management, Jaipur
24. Baldev Ram Mirdha Institute of Technology, Jaipur
25. Regional Colleges for Education Research & Technology, Jaipur

## AN ANALYTICAL STUDY OF EXPORT PERFORMANCE OF MINERALS AND METALS TRADING CORPORATION LTD. (MMTC) IN THE GLOBALISED ERA

**DR. MANISH KUMAR SRIVASTAVA**  
FACULTY, FACULTY OF MANAGEMENT STUDIES  
ICFAI BUSINESS SCHOOL  
DEHRADUN – 248 197

**DR. ASHISH KUMAR SRIVASTAVA**  
PROFESSOR  
DEPARTMENT OF COMMERCE  
D.D.U. GORAKHPUR UNIVERSITY  
GORAKHPUR – 273 009

### ABSTRACT

*Minerals & Metals Trading Corporation (MMTC) Ltd. was incorporated in the year 1963 by the Government of India, primarily with an objective to regulate the International trade of minerals and metals. Today, MMTC is India's largest International Trading Company having a strong nationwide trading network offering a large and wide range of products and services. In this paper, an attempt has been made to analyze the export performance of the corporation in the light of the export related objectives for which it was formed. The present paper looks into the functioning of MMTC particularly in the context of its export performance in the LPG regime. The study period is of 18 years (from 1991-92 to 2008-09) of the LPG regime.*

### KEYWORDS

Export, Minerals, Metal, MMTC, Trade.

### INTRODUCTION

Before independence, there was almost no 'Public Sector' in the Indian economy. The only instances worthy of mention were the Railways, the Posts and Telegraphs, the Port Trust, the Ordnance and the Aircraft factories and little Government managed undertakings like the Government salt factories, quinine factories etc. After independence and with the advent of planning, India opted for the dominance of the public sector, firmly believing that political independence without economic self-reliance was not good for the country. The passage of Industrial Policy Resolution of 1956 and adoption of the socialist pattern of the society led to a deliberate enlargement of our public sector. It was believed that a dominant public sector would reduce the inequality of income and wealth, and advance the general prosperity of the nation. Public sector undertakings along with handling business in the country also started to participate in the foreign trade. In the beginning, since private sector was not at all equipped to participate in the foreign trade, the whole foreign trade was to be handled by the public sector organisations only. Therefore, in the year 1956, a state trading agency was set up as a limited company and was named as "State Trading Corporation of India Ltd.". This government owned agency was handed over the charge of handling foreign trade on behalf of the government. In the year 1963, a new organization in the name of Minerals and Metals Trading Corporation Ltd. (MMTC) was formed, by transferring the trade related with minerals and metals from State Trading Corporation to Minerals and Metals Trading Corporation. This organization was mainly a canalizing agency for export of minerals and import of fertilizers and metals. MMTC was formed as a Government company and was registered as a company under the Indian Companies Act 1956.

### EXPORT OBJECTIVES OF MMTC

The main objective for which MMTC was established was to organize and undertake exports from India of minerals, ores and concentrates, and such other allied commodities as may be entrusted to the company for such purposes by the Union Government from time to time(i). It has also the responsibility to explore and develop new markets for exports of minerals, ores and concentrates with a view to diversify and expand their exports. So it can be said that MMTC was formed mainly to export minerals, in which India is very rich. But as time passed and with the start of the LPG regime, MMTC started to export some non-traditional/new items along with the traditional items. At present it exports mainly Iron Ore, Iron Ore Concentrates, Manganese Ore, Chrome Ore, Agro Products, Engineering Products, Barytes, Building Material, Diamonds, gems & jewellery, and pig iron.

In this paper, an attempt has been made to analyze the export performance of the corporation in the light of the export related objectives for which it was formed. The present paper looks into the functioning of MMTC particularly in the context of its export performance in the LPG regime. The study period is of 18 years (from 1991-92 to 2008-09) of the LPG regime.

### CLASSIFICATION OF MMTC'S EXPORTS

Coming on to the export trade of MMTC, it was found by analyzing the various annual reports of the corporation that its export is divided into the following segments:

1. Mineral ore
2. Agro Products
3. Precious Metals
4. General Trading
5. Pig Iron (Export started in the year 2002-03)

### EVALUATION OF MINERAL ORES EXPORT PERFORMANCE

The minerals group of MMTC mainly includes Iron Ore, Manganese Ore and Chrome Ore. Besides these three items, MMTC also exports other minerals Barytes, Mud chemicals, Bentonite, Bauxite, Talc, Gypsum, Feldspar, Quartz/Silica Sand, Garnet Sand, Kaolin (China Clay), and Vermiculite etc. Mineral ore includes export of canalised as well as non-canalised items. Generally the mineral ore is exported to Japan, South Korea and China. On reviewing the annual reports of MMTC, it was found that the main exporting item of the corporation is mineral. Earlier MMTC was a canalising agency for every type of mineral ore but in the year 1992, the mineral ore export trade was decanalised by the Union Government.

At present, MMTC is a canalising agency of the following mineral ore:

Name of the item	Description of the item
Iron ore	Iron ore having a content of Iron of more than 64% (instead of iron ore of Redi and Goa origin)
Manganese Ore	Manganese Ore having a content of manganese of more than 46%
Chrome Ore	a) Chrome Ore lumps with Cr <sub>2</sub> O <sub>3</sub> not exceeding 40% b) Low silica friable/fine ore with Cr <sub>2</sub> O <sub>3</sub> not exceeding 52% & silica exceeding 4% c) Low silica friable/fine chromite ore with Cr <sub>2</sub> O <sub>3</sub> in the range of 52%-54% and silica exceeding 4%.

**Table 1.1: MMTC's share of Mineral ore in Total export of MMTC**

Year	Total Mineral ore export (Rs.in Million)	Total export turnover (Rs.in Million)	Share of Mineral ore in total export (%)
1991-92	8194	17866	45.86
1992-93	7542	16748	45.03
1993-94	7184	13713	52.39
1994-95	7829	13683	57.22
1995-96	8247	13756	59.95
1996-97	8697	11367	76.51
1997-98	9696	11869	81.69
1998-99	9336	10401	89.76
1999-2000	10256	11538	88.89
2000-01	13614	16036	84.90
2001-02	13774	17287	79.68
2002-03	12448	23356	53.30
2003-04	14360	18912	75.93
2004-05	25383	30309	83.74
2005-06	25244	29254	86.30
2006-07	27385	34131	80.23
2007-08	33899	39114	86.67
2008-09	36876	45759	80.59

Source: Compiled from various Annual Reports of MMTC

It is clear from the Table 1.1, that the mineral ore contributes 45% to 90% in MMTC's total export in the study period. So the performance of mineral ore is very crucial in MMTC's export trade since it carries a mammoth portion in the corporation's total export achieved in each year. If in any case, the export turnover of minerals falls, the whole export turnover of MMTC will be badly affected.

**Table 1.2: Share of Canalised export in Total mineral export of MMTC**

Year	Year ended 31 <sup>st</sup> March	Total Mineral ore export (Rs.in Million)	Canalised Mineral ore export (Rs.in Million)	Share of canalised portion in total mineral export (%)
1991-92	1992	8194	8194	100
1992-93	1993	7542	7542	100
1993-94	1994	7184	7184	100
1994-95	1995	7829	7829	100
1995-96	1996	8247	8110	98.34
1996-97	1997	8697	8331	95.79
1997-98	1998	9696	9346	96.39
1998-99	1999	9336	8741	93.63
1999-2000	2000	10256	9410	91.75
2000-01	2001	13614	12690	93.21

2001-02	2002	13774	12700	92.20
2002-03	2003	12448	11580	93.02
2003-04	2004	18912	NA	NA
2004-05	2005	30309	NA	NA
2005-06	2006	29254	NA	NA
2006-07	2007	34131	NA	NA
2007-08	2008	39114	NA	NA
2008-09	2009	45759	NA	NA

Source: Compiled from various Annual Reports of MMTC Ltd.

Looking at the Table 1.2, one can very well figure out that in the total mineral ore export, the share of canalized mineral ore is always above 90% in the study period. If MMTC was not given the status of canalizing agency to export this mineral ore, the situation might have been different and MMTC could not have shown such a good performance as far as its export are concerned. It may also be seen from the table given below that of the canalized portion of mineral ore, iron ore carries the top position followed by chrome ore and manganese ore.

**Table 1.3: Canalised and Non-Canalised Mineral export of MMTC**

Year ended 31 <sup>st</sup> March	Total Mineral ore export	Minerals Ore Export(Rs.in Million)					
		Iron Ore		Chrome Ore		Manganese Ore	
		Canalised	Non Canalised	Canalised	Non Canalised	Canalised	Non Canalised
1991-92	8194	7095	Nil	692	Nil	407	Nil
1992-93	7542	6589	Nil	612	Nil	341	Nil
1993-94	7184	6326	Nil	535	Nil	323	Nil
1994-95	7829	6608	Nil	725	Nil	496	Nil
1995-96	8247	6717	137	1017	Nil	376	Nil
1996-97	8697	6549	296	1234	39	548	31
1997-98	9696	8008	298	913	52	425	Nil
1998-99	9336	8021	853	381	04	339	38
1999-2000	10256	8080	667	960	47	370	132
2000-01	13614	11270	715	1020	17	400	92
2001-02	13774	11440	797	830	182	430	95
2002-03	12448	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.

Source: Compiled from various Annual reports of MMTC Ltd.

So now it is proved that MMTC's export performance depends on the export performance of mineral group and the export performance of mineral group depends on the performance of canalised mineral ore mainly on canalised iron ore which is exported to Japan and South Korea. As we know that MMTC earns most of its export revenue by exporting minerals. Now, let us analyse MMTC's performance on the basis of India's performance in minerals and ores export segment.

**Table 1.4: Share of MMTC in India's Mineral ore exports**

Year	India's export of ores and minerals (Rs. in million)	MMTC's export of ores & minerals (Rs. in million)	MMTC's share (%)
1995-96	30610	8247	26.94
1996-97	31850	8697	27.30
1997-98	30620	9696	31.66
1998-99	28270	9336	33.02
1999-2000	29750	10256	34.47
2000-01	41390	13614	32.89
2001-02	47360	13774	29.08
2002-03	75910	12448	16.40
2003-04	88760	14360	16.18
2004-05	205240	30309	14.76
2005-06	237330	29254	12.33
2006-07	273110	34131	12.49
2007-08	364400	39114	10.73
2008-09	355290	45759	12.87

Source: Compiled from <http://indiabudget.nic.in> & MMTC's Annual Reports

MMTC's share in India's total minerals and ores export business fluctuated between 27% and 34% till 1999-2000. But in the recent years, it is continuously declining and had come down to 12.87% in the year 2008-09. These figures are not enthusiastic. So it can be summarised that in spite of getting the privileges of a canalising agency, MMTC had shown a very dull performance in minerals and ores segment and it had been unsuccessful in promoting the export business of India.

In the light of the above analysis, it can be said that MMTC was unable to fully reap the benefits of being a canalising agency for specific kind of mineral ore. The declining share of MMTC in India's mineral ore export, proves that neither the organisation was able to promote the export of mineral ore, nor it was able to maintain its share in the export business.

#### EVALUATION OF AGRO PRODUCTS EXPORTS PERFORMANCE

Though the main objective of MMTC was to organise and undertake exports from India of minerals, ores and concentrates, and such other allied commodities as may be entrusted to the company for such purposes, it started to export some non-traditional/new items along with the traditional items. Agro products are one of the non-conventional items, which, at present, are being exported by MMTC.

The main items exported by the company are as follows:

- 1) Wheat
- 2) Rice
- 3) Maize
- 4) Soya bean Meal
- 5) Sugar

The countries to which MMTC generally exports agro products are Sri Lanka, Bangladesh, Czechoslovakia, Iraq, Jordan and Philippines.

**Table 1.5: MMTC's share of Agro Exports in Total export of MMTC**

Year	Year ended 31 <sup>st</sup> March	Value of Agro Export (Rs. in million)	Exports of MMTC (Rs. in million)	Share in MMTC's Total Export (%)
1991-92	1992	1948	17866	10.90
1992-93	1993	376	16748	2.25
1993-94	1994	1043	13713	7.61
1994-95	1995	451	13683	3.30
1995-96	1996	1974	13756	14.35
1996-97	1997	1331	11367	11.71
1997-98	1998	748	11869	6.30
1998-99	1999	301	10401	2.89
1999-2000	2000	40	11538	0.35
2000-01	2001	1744	16036	10.88
2001-02	2002	2929	17287	16.94
2002-03	2003	9005	23356	38.56
2003-04	2004	2429	18912	12.84
2004-05	2005	620	30309	2.05
2005-06	2006	Nil	29254	Nil
2006-07	2007	753	34131	2.21
2007-08	2008	61	39114	0.16
2008-09	2009	2411	45759	5.27

Source: Compiled from various Annual reports of MMTC Ltd.

By looking at the figure of agro exports and the contribution of agro exports in the total export of the corporation, it can be easily said that the performance of MMTC in the field of agro exports is not very promising. In some years (e.g. year ending 31st March 1992, 1996, 1997, 2001, 2002, 2003, 2004) it has shown a remarkable performance and in some years it has marked a very sluggish performance. It was analyzed by going through the annual reports of various years of MMTC that the highest revenue generator in agro exports during the period 1993-1999 was soya bean meal where as during the period 2001-2005, it was rice and wheat. On one side it is a good sign that the Corporation was able to find new exportable agro items in the form of Rice and Wheat but on the other hand it is also true that it cannot maintain the market of its conventional item i.e. Soya bean meal in the later years. From 2006 onwards, agro products were unable to contribute significantly in the total exports of the corporation.

The reasons for this uneven performance can be summarized as follows:

1. MMTC's failure in maintaining the export of Soya bean meal, which is one of its main agro export item.
2. Improper attention to the export of products other than mineral ore is another reason for dull performance shown by Agro division. Since MMTC is a canalizing agency of Mineral Ore exports and since this segment earns it the maximum amount of revenue, the Corporation usually gives much attention to this sector only. Due to this other items of export were neglected.
3. Tough competition faced by MMTC from Brazil in Soya bean meal export and low and uneven demand of rice and wheat in the international market also affected the performance.
4. Inability of respond fast also darkened the Corporation's prospects in agro sector.
5. The prices of the agricultural commodities in India are generally high owing to the traditional methods of agriculture and less productivity. Due to the increase in population the internal demand have increase leaving very little scope for exports.

The share of MMTC in total agricultural and allied products export made by India is shown in the following table:

**Table 1.6: Share of MMTC in India's Agro export**

Year	India's export of Agricultural & allied products (Rs. in million)	MMTC's export of Agricultural & allied products (Rs. in million)	MMTC's share (%)
1995-96	211380	2111	0.99
1996-97	242390	1364	0.56
1997-98	254190	752	0.29
1998-99	261040	302	0.12
1999-00	245760	40	0.02

2000-01	285820	1744	0.61
2001-02	293120	2929	0.99
2002-03	336910	9005	2.67
2003-04	362470	2429	0.67
2004-05	395790	620	0.16
2005-06	467030	Nil	Nil
2006-07	589590	753	0.13
2007-08	652300	61	0.01
2008-09	777830	2411	0.31

Source: Compiled from <http://indiabudget.nic.in> & MMTC's Annual Reports

If we look at the Table 1.6, we can clearly say that MMTC stands nowhere in Indian agro exports. In the year 2002-03, MMTC had captured a share of approx 3%, which is quite enthusiastic but not enough. But from then onwards there is nothing enthusiastic to be mentioned.

#### EVALUATION OF PRECIOUS METALS EXPORTS PERFORMANCE

Precious metal division usually exports diamonds, gems and studded/ unstudded gold and silver jewellery. The export performance shown by the division cannot be termed as satisfactory. The share of this division which was 13.20% in the year 1991-92, gone up and reached a all time high of 26.75% in the year 1994-95. But after this year, the export figure of this division as well as the share in the total export turnover started to decline and in the year 2002-03, it came down under 1%.

The reasons in general were as follows: -

1. Liberalised import policy of the Government of India resulting in thirteen agencies/banks dealing in bullion imports of gold created substantial competition for MMTC, as these banks are able to transact the business at lower costs as compared to MMTC.
2. Global Depression and steep fall in International prices of Gold due to which the demand for gold jewellery was reduced.
3. The negative impact on the general trade environment, following September 11, 2001 which resulted in Gold and silver prices fluctuating widely world over thereby impacting consumers buying sentiments.

So it can be said that the performance of this division was badly affected by Globalisation and Liberalisation in India. MMTC failed to manage its share in the market. The corporation adopted many measures to improve its performance like organising and participating in various International trade exhibitions, opening of jewellery showrooms and gold vaults etc. But these measures failed to bring desired and concrete results. In this way, the corporation was unable to adapt itself in the new trade environment.

As we know, since precious metals are one of the traditional items, which MMTC is exporting, the Corporation should try to give due importance to the export of Diamonds/Gems/Jewellery. Gold jewellery designed in India are in great demand in the western countries like USA, UAE, UK, Singapore, Hong Kong, Kuwait, Germany Belgium and Bahrain. Gold jewellery exports in fiscal year 2002-03 were approximately of US\$ 1.51 bn - up 30.17 percent from US\$ 1.16 bn in 2001-02. US accounts for largest share (40 per cent) in India's gem and jewellery exports followed by Hong Kong (23 percent) and Belgium (12 per cent)(iii). These data show that there is a very huge potential market for precious metals and MMTC should try to capture this market.

**Table 1.7: Share of MMTC in Indian Gems and Jewellery export**

Year	India's export of Gems & Jewellery (Rs. in million)	MMTC's export of Gems & Jewellery (Rs. in million)	MMTC's share (%)
1995-96	176440	1800	1.02
1996-97	168720	316	0.18
1997-98	198670	416	0.20
1998-99	249450	203	0.08
1999-00	330890	79	0.02
2000-01	337340	188	0.05
2001-02	348450	277	0.08
2002-03	438060	76	0.02
2003-04	485860	592	0.12
2004-05	617110	387	0.06
2005-06	687520	291	0.04
2006-07	722950	289	0.04
2007-08	792280	Nil	Nil
2008-09	1285750	434	0.03

Source: Compiled from <http://indiabudget.nic.in> & MMTC's Annual Reports

Viewing the Table 1.7, it can be inferred that the export performance of Gems and jewelleryes, one of the traditional items, which MMTC exports, is very poor. The share of this item in India's total export of gems and jewelleryes is declining continuously and is almost tending to Zero. In the light of above analysis it can be concluded that MMTC's performance regarding export of gems and jewelleryes is insignificant and it had contributed nothing in improving India's export performance in this field.

#### EVALUATION OF GENERAL TRADING EXPORT PERFORMANCE

The general trading export business of the corporation includes Merchanting trade, exports of items like Building materials, Marine products, Industrial products, Engineering products, LCCT, leather products and textiles, meat and meat products, jute products and other consumer goods.

It was deduced after going through the annual reports of MMTC during the study period that, the contribution of general trading export business in total export turnover of MMTC, ranges in between 1% to 2%. So it can't be termed as a satisfactory performance by the corporation. Moreover, the corporation was unable to export the items under these category on continuous basis. Marine products and Industrial products are not being exported since last five to six years. Rest of the products like Building materials, merchanting trade, engineering products etc. are also contributing very low in volume. Since these items are non-canalised, MMTC gets a good competition by other organisations too. MMTC started to export these items with an objective to improve and increase its export trade, which was badly

affected, by the start of liberalisation in India in 1991. But if we look at the performance shown by the corporation in the study period, it can be held that MMTC has not been successful in increasing and promoting the trade of these non-canalised items and achieve the objective for which it started to export these items.

#### EVALUATION OF PIG IRON EXPORT PERFORMANCE

This is the new item which was added by MMTC in its export basket in the year 2002-03. From then, MMTC managed to attain a decent export figure of pig iron in its total export in terms of rupee value. The pig iron exported by MMTC is produced by its subsidiary Neelanchal Ispat Nigam Ltd. located in Orissa. Pig iron is contributing more than the non-mineral ore export items of MMTC on continuous basis, right from the year 2002-03. This is a healthy sign for the corporation as it is also a non-canalised item. In the recent three to four years, its contribution in the total exports is more than 11% for which the corporation can have a pat on its back.

**Table 1.8: Share of Pig Iron export in MMTC's total export**

Year	Value of Pig Iron Exports (Rs. in million)	Exports of MMTC (Rs. in million)	Share in MMTC's Total Export (%)
2002-03	1588	23356	6.8
2003-04	797	18912	4.21
2004-05	3901	30309	12.87
2005-06	3458	29254	11.82
2006-07	5446	34131	15.96
2007-08	5090	39114	13.01
2008-09	5989	45759	13.09

Source: Compiled from various Annual reports of MMTC Ltd.

#### EVALUATION OF MMTC'S EXPORT PERFORMANCE IN INDIA'S TOTAL EXPORT

The following table contains the figures of MMTC's export and India's total export in the study period i.e. from 1991-92 to 2008-09.

**Table 1.9: Share of MMTC's export in India's total export**

Year	MMTC's export (Rs. in million)	India's export (Rs. in million)	MMTC's share (%)
1991-92	17866	440410	4.06
1992-93	16748	536880	3.12
1993-94	13713	697510	1.97
1994-95	13683	826740	1.66
1995-96	13756	1063530	1.29
1996-97	11367	1188170	0.96
1997-98	11869	1301000	0.91
1998-99	10401	1397520	0.74
1999-00	11538	1595610	0.72
2000-01	16036	2035710	0.79
2001-02	17287	2090180	0.83
2002-03	23356	2551370	0.92
2003-04	18912	2933670	0.64
2004-05	30309	3753400	0.81
2005-06	29254	4564180	0.64
2006-07	34131	5717790	0.60
2007-08	39114	6558640	0.60
2008-09	45759	8407550	0.54

Source: Compiled from <http://indiabudget.nic.in> & MMTC's Annual Reports

If we analyze MMTC's share in the country's total export in various years, we will get to know that has dipped down to 0.54% in the year 2008-09 starting from a handsome 4.06% in the year 1991-92. The export share of the corporation in the country's total export doesn't matches with what is expected from an organization which has been given the status of Super Star Trading House.

#### FINDINGS

1. The share of the corporation's exports in the country's total exports is very low in spite of the fact that it handles exports of number of products. (Table 1.9)
2. Though the corporation exports a number of items, but the bulk of the exports are contributed by very few items. (Table 1.1)
3. More than 90% of MMTC's export (in value) is canalised exports. (Table 1.2)
4. Of this canalised export, the bulk of it (approx 80%) is contributed by canalised iron ore export. (Table 1.3)
5. In spite of the fact that MMTC has got the status of a canalizing agency for exporting certain type of mineral ores, its share in India's total mineral ore is continuously declining. (Table 1.4)
6. MMTC was unable to fully reap the benefits of being a canalising agency for specific kind of mineral ore. The declining share of MMTC in India's mineral ore export, proves that neither the organisation was able to promote the export of mineral ore, nor it was able to maintain its share in the export business. (Table 1.4)
7. The corporation managed to generate some good revenues by exporting agro products like soyabean meal, rice & wheat but it failed to maintain this performance consistently.
8. It was found after analyzing the annual reports of MMTC that the new products introduced by the corporation for exports could not be continued by the organisation for long time e.g. export related with soyabean meal could not be continued by the organisation.
9. The exports related with precious metals are also poor. (Table 1.7)

10. The corporation has also started exporting Pig iron produced by NINL (the Iron & Steel plant promoted by MMTC and the Government of Orissa) to Japan, South Korea, Malaysia, Indonesia and Thailand (ii). The corporation had shown an improved performance right from the first year of its export i.e. 2002-03. The contribution of Pig iron export in the total export turnover of MMTC is approximately 11%, which is a handsome figure.
11. The export diversification steps taken by the MMTC have very little impact on its exports.
12. The corporation failed to create substantial demand for those products it exports. It is just responding to the readymade or existing demand.
13. The corporation has made no serious efforts to identify markets and develop new products for exports which would have helped it to establish itself in International markets on long-term basis.

### SUGGESTIONS

1. The corporation should make efforts to study the trends prevailing in the international market and then it should react accordingly.
2. Efforts should be undertaken to open at least one overseas branch office in each region or trade block. By doing so, MMTC can control and handle its performance in the international market.
3. By opening overseas branches, the corporation can also promote its trade and can find some new items, which are profitable and can be exported by the corporation.
4. The existing overseas offices should be directed to find out the export potentialities existing in their region more effectively so that the Corporation can utilize them efficiently.
5. For exploring new markets, MMTC should try to participate in more and more number of international trade fairs and exhibitions. In this way it can also create demand for Indian goods.
6. The corporation should try to conduct thorough business study to tap the unexplored areas.
7. The corporation should concentrate to export those products which can be exported on long-term basis.
8. It can also fix a minimum limit of exports of the new items it is exporting, and it should try to see that the exports never fell below that limit and are achieved in each and every year.
9. The supply structure of the corporation should be strengthened. The company should carry out adequate measures to ensure proper supply of goods at right time and at right place. Since MMTC is mainly a trading organization which usually exports goods made by small scale producers and manufacturers (which cannot exports there goods by their own), it should try to encourage and provide these producers and manufacturers necessary latest services and information so that Indian exports can be increased.
10. The logistics and warehousing facilities of the corporation should be further improved.
11. Since MMTC's export of jewellery is continuously declining, it is suggested that the corporation should help good artisans so that they may make attractive designs of jewelleries for the International market.
12. The corporation should also try to diversify in new products e.g. Decorative pieces made of gold/silver, Golden statue of Gods etc.
13. From time to time, professional managers should be consulted and seminars be conducted. This step will benefit the organisation in the following ways:
  - i) It will help in increasing the efficiency of the managers.
  - ii) The decision-making system will improve.
  - iii) The internal control system will be strengthened.
14. Efforts should be made to find out the causes responsible for the early departure of products from the corporation's export tub.
15. It is also seen that, there are some items which are exported by MMTC as well as its parent organisation i.e. STC. It is true that in the current liberalised era, in most of the cases, one cannot impose restrictions regarding the items to be dealt with by an organisation but since both of the organisation works under government flagship, it should be seen that there is no inter-competition between these organisations. Competition between these organisations may prove detrimental to the interest of our country.

i Memorandum of Association of MMTC Ltd.

ii <http://www.indiaonestop.com/gemsjewellery.htm>

iii Various Annual Report of MMTC Ltd.

## SELECTION OF SUPPLIER EVALUATION CRITERIA: FROM THE PERSPECTIVE OF TRIPLE BOTTOM LINE THEORY AND APPLICATION OF FACTOR COMPARISON METHOD

**DR. PADMA GAHAN**  
**PROFESSOR & HEAD**  
**BUSINESS ADMINISTRATION DEPARTMENT**  
**SAMBALPUR UNIVERSITY**  
**BURLA – 768 019**

**MANOJ MOHANTY**  
**ASST. MANAGER - PROJECT EXECUTION**  
**L & T LIMITED**  
**KANSBAHAL**  
**SUNDARGARH**

### ABSTRACT

“Supply chains compete with each other not the organizations”, told by many supply chain experts. It goes without saying that suppliers are the heart of supply chain. So Supplier selection is one of the key tasks of supply chain management. Supplier selection also must be directed in the line of sustainability means looking beyond profit lines i.e. including human and environmental factors. The industry is increasingly exhibiting concerns over sustainability, driven by messages from different platforms of world, current legislation system. They are also exhibiting seriousness in implementation of those systems and concerned about public interest too. This factor forced to change many countries future government policy, current production operations practices, and created new business models. Supplier selection is always a vital responsibility and exercise of management and becomes more complex when we emphasis on sustainability. Supplier selection in triple bottom line theory means going beyond operational parameters of supplier selection. The environmental and social parameters also should be included along with operational parameters. Factor comparison method is a value engineering tool used in this paper to assess the relative weight between factors of supplier selection in a scientific manner. This paper provides a background to better understand the required criteria's of supplier evaluation in the sustainable era. It also defines how much weightage is to be provided to which factor.

### KEYWORDS

Supplier Selection, Triple Bottom Line, Factor comparison method, Sustainability

### INTRODUCTION

Supplier evaluation is one of the most interesting and most talked about subjects in the area of organizational strategic planning among senior executives and entrepreneurs around the globe. Today's High-technology market poses a greater challenge to both customers and vendors. Most of the research papers given emphasis on cost, quality, delivery or related aspects. But the current changing world is equally concerned about safety and environment too. The combination of profit, safety and environment leads to sustainable business practice. By analyzing the role of original equipment manufacturer (OEM) and supplier, it is very clear that for each activity of the supplier or downstream of supply chain OEM is ultimately responsible. They just cannot excuse themselves with the plea that they are not manufacturing. So they must ensure the safety of the persons working with supplier, they must review the methods or processes used at supplier's end used to make end products for the OEM from environmental point of view. This will leads to formulate supplier evaluation criteria beyond profit parameters.

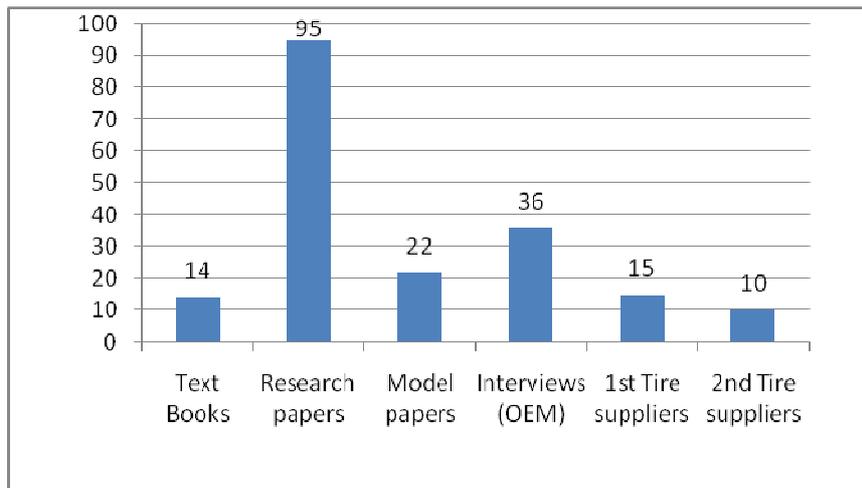
Only formulating the criteria for supply chain really does not help any organization. During formulation stage the experts rather experts of the supply chain or purchasing, they express many criteria's of evaluation, without going into the practical aspect or scientific calculation methods. Factor comparison method is one of the scientific as well as democratic ways to assign values to each category of criteria. Of course it is a very detailed workout, but it is worth as supplier evaluation practically done once in a year and fine tune years after year.

This function having more relevance in current days as most of the forum of management and across globe is now talking how OEM should be more responsible to the activities carried out at our suppliers. Each activity of our stakeholders impacting the people, safety, environment and natural resources is being observed. Many organizations in this world and also in Indian started reporting the corporate sustainability report to give a feel to the entire community that they cares about people and environment while doing business. Only profit is not the only objective of business, all should understand that safety & environment are long run profit making process.

### RESEARCH METHODOLOGIES

This papers created based on the following resources: (1) Text books on supplier relationship management, SCM ; (2) Published Research Papers; (3) Model Papers; (4) Interviews with OEM buyers (5) Interaction with 1<sup>st</sup> tire and 2<sup>nd</sup> tire suppliers.

Fig. 1 shows the assignments of the sources.



### TRIPLE BOTTOM LINE THEORY (SUSTAINABILITY)

The term "Triple Bottom Line" (3BL) has become increasingly fashionable in management, consulting, investing, and NGO circles over the last few years. The idea behind the 3BL paradigm is that a corporation's ultimate success or health can and should be measured not just by the traditional financial bottom line, but also by its social/ethical and environmental performance. (Wayne Norman and Chris MacDonald, 2003)

Triple Bottom Line is coined by John Elkington, head of the consulting firm SustainAbility, who first coined the phrase in 1994. Elkington was referring to three dimensions of accounting – economic, environmental, and social. A number of different terms express the same concept. Global Reporting Initiative named this as "Sustainability Reporting"; Japan uses "CSR Reporting"; KPMG called it "Corporate Responsibility Reporting" and GE called it as "Corporate Citizenship Reporting."

While going through Google search on these terms, we found that the term "Triple Bottom Line" is the most frequently appearing, with 634,000 hits. "Corporate Sustainability" got 8,620,000 hits, "CSR Reporting" got 46,900,000 hits, as on 10<sup>th</sup> of August 2010. Further little deep we have found that articles on the above subjects in various forums are also very high in nature. Articles on "Triple Bottom Line" published around 262,000; corporate social responsibility around 4790,000 and articles on corporate sustainability is 18600,000. This gives a feel how much the current society, corporate; researchers and writers are concerned about sustainability and a better world for each of us. Sustainability is increasingly discussed by policy makers (President's Council on Sustainable Development, 1996; American Chamber of Commerce of Europe, 2004), the popular press (Anon., 2001) and journals in various technical fields.

Wikipedia defines triple bottom line (TBL) as people, planet, profit or "the three pillars" captures an expanded spectrum of values and criteria for measuring organizational economic, ecological and social aspects. TBL demands that a company should be responsible to the stakeholders rather than shareholders. Stakeholders mean anyone who is influenced, either directly or indirectly, by the actions of the firm. The idea behind the 3BL paradigm is that a corporation's ultimate success or health can and should be measured not just by the traditional financial bottom line, but also by its social/ethical and environmental performance.

As defined by Brundtland Commission (World Commission on Environment and Development, 1987). Sustainability means development that meets the needs of the present without compromising the ability of future generations to meet their needs. The concept of "save the earth and make money too" (Tierney, 2002) may involve some difficult decisions where more holistic accounting concepts are used and where the system boundaries for analysis are extended beyond the perimeter fence of the factory i.e. moving towards society and environment.

In short, 3BL advocates believe that social and environmental performance can be measured in fairly objective ways, and that firms should use these results in order to improve their social and environmental performance. Moreover, they should report these results as a matter of principle, and in using and reporting on these additional "bottom lines" firms can expect to do better by their financial bottom line in the long run.<sup>1</sup>

Sustainability is generally defined as using resources to meet the needs of the present without compromising the ability of future generations to meet their own needs (WCED, 1987; Daly and Cobb, 1994). Lots of different interpretations and questions moving around all these sustainability issue and we need to be very clear regarding the following raised questions by many of us.

These questions are:

- How much resources and of what type our future generations will require?
- What level of pollutants can be released without having a negative effect on future generations?
- How to identify depletable resources for the future?
- Can we will able to replace depletable resources?
- Can existing technology will able to match the difference of resources in other way?
- What are the forces will drive sustainability?
- Should we need to change our way of living?
- How our corporate world will enforce sustainability?

### SUPPLIER EVALUATION & SELECTION

<sup>1</sup> Wayne Norman and Chris MacDonald : Getting to the Bottom of "Triple Bottom Line" In Press, Business Ethics Quarterly, 2003)

Supplier selection and evaluation is one of the most critical activities in purchasing or procurement process (O. Bayazit, B. Karpak, , 2006). This evaluation process consists of 4 stages i.e., defining objective, formulating the selection criteria, qualifying the suitable alternatives, and final selection. To qualify the prospective suppliers, the effective defining of selection criteria is necessary (C. A. Weber, J. R. Current, and W. C. Benton, 1991) (C. Droge, R. Germain, and J. R. Stock, 1991) Beyond the high significance on the product cost and partners relationship, it has considerable impacts on the buyer's corporate competencies (J. Sarkis and S. Talluri, 2002) (S. H. Ha and R. Krishnan, 2008)

Depending upon the nature of business and complexity of organizations numerous factors are considered and evaluated by the management for its suppliers and supply chains. Supplier management needs a careful balance when we are opting for product or service. This also becomes more complex when we take the service or product within the premises of the organization and outside of the organization. Supplier selection and management is applicable from the birth stage to end of the product life means start to end of the product life cycle.

Within supply chain management the supplier selection decision is one of the critical issues faced by operations and purchasing managers to help organizations maintain a strategically competitive position (Chen, Lin, & Huang, 2006). Current business practices around the globe i.e. globalization, off soaring etc making the supplier selection more complex. This complexity effects largely to the SCM designers and operational managers. Suppliers have to be in line with the OEM's objectives and more over in the same direction of quality, delivery and price. During designing the supply chain the OEM organization not only seeing the price or delivery, they are more concerned and relates with suppliers skill with innovative supply chain management practice and especially suppliers those who are having focus on social and environmental concerns (sustainability). These strategic and sustainability factors play a vital role for the long-term resiliency of a supply chain (Ciliberti, Pontrandolfo, & Scozzi, 2008; Seuring et al., 2008; Zhu, Sarkis, & Lai, 2008).

#### SUPPLIER SELECTION MODELS

While reviewing the literature we can very well observe initial research work in supplier relationship management and evaluation parameters primarily emphasized on cost factors and operational issues. Different evaluation models for supplier selection have been proposed over the past many years. Methodologies are typically include weighted linear model approaches, mixed integer programming, the analytical hierarchy process, linear and goal programming models, matrix methods, clustering methods, total cost of ownership, human judgment models, principal component analysis, interpretive structural modeling, statistical analysis, discrete choice analysis experiments, and neural networks/case based reasoning approaches and rough set theory model.

#### SUSTAINABILITY AND SUPPLIER SELECTION

The interaction between sustainability and supply chains is the critical next step from recent examinations of operations and the environment (Corbett and Kleindorfer, 2003) and operations and sustainability (Kleindorfer et al., 2005). While important contributions have been made in relation to environmental operations and policy, strategy, finance, product design, supplier relations and post-consumer product management it is critical to move forward to the systemic issues that exist at the intersection of sustainability, environmental management and supply chains.<sup>2</sup>

Sustainable supplier selection processes demands beyond the boundary of operational requirements. When we are discussing supplier selection from the perspective of corporate social responsibility then the need for considering supplier relationships from a sustainable and strategic perspective has become even more apparent (Ciliberti et al., 2008); Presley, et al., 2007; Seuring and Mueller, 2008). One of the most fundamental and important decisions made by buyers and organizations is selecting the criteria of supplier selection. The level of complexity increases when supplier performance, organization's objective, ethics, social and environmental responsibilities of the OEM organization needs to be balanced.

Most of the supplier selection researches lack of environmental and social sustainability parameters. Although scarce, the environmental consideration in supplier selection research is emerging while more general sustainability issues, incorporating other social sustainability dimensions are quite scarce (Hutchins & Sutherland, 2008). The objective behind including environmental and social angles to the supplier selection criteria is to maintain and improve corporate legitimacy and reputations of the organizations.

Many authors are currently addressing supplier selection issues from environmental aspects (Handfield et al., 2002, Humphreys et al., 2003, Sarkis, 2006). Still we need to incorporate social factors like social equity and employee health. In past supplier selection from environmental aspects is closely associated with conformance to environmental regulations only. Also to some extent the health aspect is a forced measure from government agencies and from NGO groups.

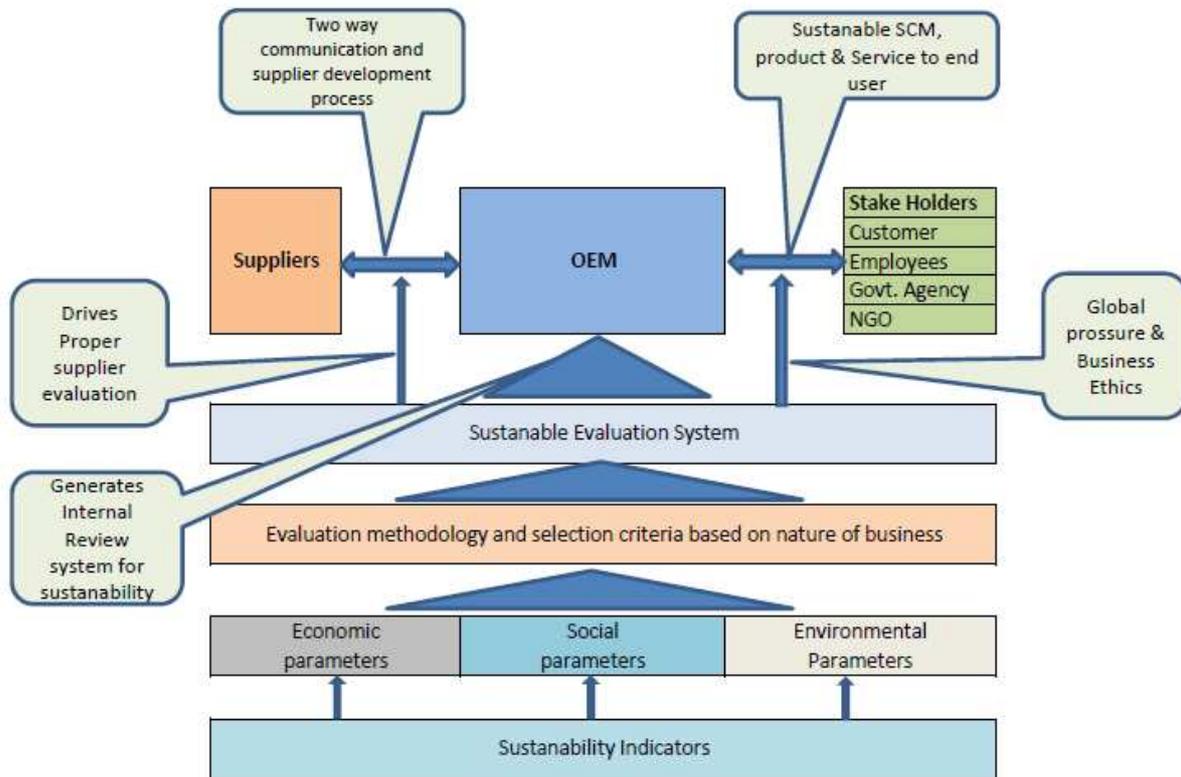
Sustainable development and sustainability is frequently interpreted as a synthesis of economic, environmental and social development, a triple-bottom-line approach (Gauthier 2005). Even though environmental considerations in supplier selection decisions have existed, a more systematic inclusion of other sustainability factors is needed. The previous dual concerns of economic and environmental aspects in supplier selection need to be expanded into a triad that involves social factors, i.e. human rights abuses, child labor, and irresponsible investment. Globally, companies are increasingly acknowledging the importance of social issues like human rights, labor and corruption (Rivoli 2003). Consequently, consideration of both environmental and social factors needs to be at the forefront of companies' supplier selection agenda.<sup>3</sup>

Focused on supplier selection, Noci (1997) identifies four environmental categories including "green competencies", "current environmental efficiency", "supplier's green image" and "net life cycle cost". Enarsson (1998) proposes a fishbone diagram based instrument similar to ones used in quality assessment within companies for the evaluation of suppliers from an environmental viewpoint. Four main factors have been identified: "the supplier as a company", "the supplier's processes", "the product itself" and "transportation". By consolidating several studies, Humphreys et al. (2003) proposes seven environmental categories. The category "environmental costs (pollutant effects)" and "environmental costs (improvement)" are grouped together under the title "quantitative environmental criteria". The other five categories named "management competencies", "green image", "design for environment", "environmental management systems", and "environmental competencies" are in a separate group termed "qualitative environmental criteria". Kongar (2005) introduces environmental consciousness indicators such as

<sup>2</sup> Jonathan D. Linton a,\*, Robert Klassen b, Vaidyanathan Jayaraman c- Sustainable supply chains: An introduction - *Journal of Operations Management* 25 (2007) 1075–1082

<sup>3</sup> Chunguang Bai a, Joseph Sarkis b, \_ Integrating sustainability into supplier selection with grey system and rough set methodologies : *Int. J. Production Economics* 124 (2010) 252–264

“recyclability of goods”, “decreased amount of hazardous substances” and “compatibility with health and safety regulations” into the supplier evaluation process.<sup>4</sup>



(Fig 1 - Source: Created by Authors through Literature review and working experience)

The above figure tries to elaborate how a sustainable system created for original equipment manufacturer (OEM) company. Basically sustainable system not only concerned about own existence, it is more concern about the stake holders and the world in totality. The system starts with sustainable indicators means based on which the system should operate or who are the driving parameters based on which the system will be formed. In this particular case of sustainability we need to take economic parameters, social parameters and environmental parameters. Based on this the methodology developed to evaluate the suppliers depending upon the nature of business. One this exercise is complete the organization gets the sustainable evaluation system. When the buying organization starts the exercise to evaluate the potential sustainable suppliers then many unseen un forecasted situations arrives which slowly gets resolved. In this process a two way communication and supplier development process initiated from Triple bottom line angle. Not only the supplier gets the benefit of this process the OEM as well as the stake holders are also beneficiary of the system. Organization always in the review process of self development, social development and environment concerned mode. This ultimately helps the society, employee and by enlarge the community.

Environmental and social factors considered during supplier selection from many perspectives. It may be organizational issue; it may be regional issue and may be an issue of the country’s legal and environmental policy. These factors are subjected to audit from the organizational quality policy or integrated management system point of view. Only framing such factors not the end of showing concerned on sustainability. The organizations have to implement this and must be supplemented with periodic audits. This is nothing but measuring performances of the factors implemented in the system. Environmental performance is in reference to resource consumption and pollution production. Similarly social dimensions may be viewed from internal social criteria and external social criteria perspectives (Gauthier, 2005). Internal social attributes refer to employment practices such as labor sources, gender diversity and occupational health and safety at work. External social criteria regard the relationship with contractual stakeholders like suppliers, customers & NGOs.

The tables sited here are given elaborates the three parameters which are supposed to be considered during supplier evaluation. Table-1 explaining the economical aspects, Table-2 explains the environmental aspects and Table-3 explains the social aspects. The sources are written against each table.

Table 1

Business and economic supplier selection attributes.	
Strategic performance measures	Organizational factors

<sup>4</sup> Orhan Feyzioğlu and Gülçin Bıyıkoğlu: Evaluation of Green Suppliers Considering Decision Criteria Dependencies, 2010

Cost Low initial price Compliance with cost analysis system Cost reduction activities Compliance with sectoral price behavior Quality Conformance quality Consistent delivery Quality philosophy Prompt response Time Delivery speed Product development time Partnership formation time Flexibility (FY) Product volume changes Short set-up time Conflict resolution Service capability Innovativeness (IS) New launch of products New use of technologies	Culture Feeling of trust Management attitude/outlook for the future Strategic fit Top management compatibility Compatibility among levels and functions Suppliers organizational structure and personnel Technology Technological compatibility Assessment of future manufacturing capabilities Suppliers speed in development Suppliers design capability Technical capability Current manufacturing facilities/capabilities Relationship Long-term relationship Relationship closeness Communication openness Reputation for integrity
---	--

Source: Based on Sarkis and Talluri (2002) and Chan (2003), Chunguang Bai a, Joseph Sarkis (2010)

Table 2

Environmental metrics in supplier selection decision.

Categories	Factors	Sub-factors
Environmental practices	Pollution controls	Remediation End-of-pipe controls
	Pollution prevention	Product adaptation Process adaptation
Environmental performance	Environmental management system	Establishment of environmental commitment and policy Identification of environmental aspects Planning of environmental objectives Assignment of environmental responsibility Checking and evaluation of environmental activities
	Resource consumption	Consumption of energy

	Pollution production	Consumption of raw material Consumption of water Production of polluting agents Production of toxic products Production of waste
--	----------------------	--

Sources: Gauthier (2005); Klassen and Whybark(1999); Dou andSarkis(2010). Chunguang Bai a, JosephSarkis (2010)

Table 3

Social metrics in supplier selection decision.

Categories	Factors	Sub-factors	
Internal social criteria	Employment practices	Disciplinary and security practices Employee contracts Equity labor sources Diversity Discrimination Flexible working arrangements Job opportunities Employment compensation Research and development Career development	
	Health and safety	Health and safety incidents Health and safety practices	
External social criteria	Local communities influence	Health Education Housing Service infrastructure Mobility infrastructure Regulatory and public services Supporting educational institutions Sensory stimuli Security Cultural properties Economic welfare and growth Social cohesion Social pathologies Grants and donations Supporting community projects	
		Contractual stakeholders influence	Procurement standard Partnership screens and standards Consumers education
		Other stakeholders influence	Decision influence potential

	Stakeholder empowerment
	Collective audience
	Selected audience
	Stakeholder engagement

Sources: Gauthier (2005), Presley et al.(2007), and Labuschagne et al.(2005). Chunguang Bai, JosephSarkis (2010)

**FACTOR COMPARISON METHOD**

This method is one of the most popular methods used in value engineering. This method helps in working out the rating of the factors used for any evaluation system. The key aspect of the method is it is very systematic and simple to use. Moreover this tool compares within each factor and discusses the relative importance with each other. Depending upon the nature of condition the weightage of each factor derived from this method.

The very reason of selecting this tool for supplier selection is to derive the individual weight of each factor used in supplier evaluation in a scientific manner. Only deciding or proposing the evaluation factors is not enough. A valid procedure must be followed to know the proper relative importance between factors used in the evaluation process. This may differ from case to case depending upon the nature of business and scenario.

Though this tool or method can be applied to many fields, we are elaborating the steps to be followed keeping supplier selection in mind. However in the end one general example is explained to have a better idea of the readers.

**STEPS TO BE FOLLOWED**

1. Select a team or representatives who all are having functional knowledge in purchasing and commercials. They also should carry well cross functional knowledge. As we are talking here sustainability, so some team members also should carry environmental and social laws prevailing for the law of land. This team should not restrict themselves to organizational financial benefits.
2. List down the criteria based on which evaluation will be carried out. Please remember that the criteria must satisfy all economical, environment and social aspects (differs from situation to situation)
3. To identify each criteria mention one alphabet against each criteria

Exp:

- A Cost
- B Delivery
- C Cost
- D Management
- E Less pollution
- F Social equity
- Etc...etc...

4. One matrix has to be drawn for comparison of each criterion with other criteria as shown below.

	B	C	D	E	F	G	H	I
A								
B								
C								
D								
E								
F								
G								
H								

Factor "A" will be compared with factor "B". If the team will feel "A" is having more relevance with comparison to "B", then "A" will put the 1<sup>st</sup> box 1<sup>st</sup> line. Similarly each factor will be compared with "A" for the 1<sup>st</sup> line and the more relevant factor will be written against each box. For the 2<sup>nd</sup> line all factors will be compared with factor "B" and so on. At the end all boxes will be filled with any of the alphabet mentioned earlier during against each criteria.

5. The next step is to establish relative degree of importance between each factor. Means when factor "A" is compared with factor "B" it may resulted in "A" is relatively important than "B". But the team also has to mention at what degree the relative importance is.

For this a three point scale is used.

Relative Importance	Points
---------------------	--------

Major Difference	3
Medium Difference	2
Minor Difference	1
No Difference	0

If factor A is having major difference with factor B then in the box "A3" will be written. If Factor A will have no difference with factor C then corresponding box will be written as 0. Accordingly the 1<sup>st</sup> line will look like

A3	0	A1	A2	A3	G1	H2	A3
----	---	----	----	----	----	----	----

(shown as Example basis)

6. After applying this point rating the total boxes are to be filled as per the decisions made by the team of experts. The final table will look line (shown as Example basis)

	B	C	D	E	F	G	H	I
A	A3	0	A1	A2	A3	G1	H2	A3
	B	B1	D2	B3	F2	B2	0	B1
		C	C3	E1	F2	C1	0	I2
			D	D3	0	D1	H1	D2
				E	E1	0	H3	E2
					F	G1	0	F1
						G	H1	I3
							H	H2

The final table will look line (shown as Example basis )

7. In the last step scores for each factor to be summed both for row wise and column wise. The scores are to be arranged either in ascending or descending order and to be reflected against each factor.

Identity	Factor	Score/Weightage	Relative Wt. considering 100% in total
A	Mentioned against "A"	H1	= H1/(sum of H1:H8)*100
C	Mentioned against "C"	H2	= H2/(sum of H1:H8)*100
D	Mentioned against "D"	H3	= H3/(sum of H1:H8)*100
E	Mentioned against "E"	H4	= H4/(sum of H1:H8)*100
B	Mentioned against "B"	H5	= H5/(sum of H1:H8)*100
G	Mentioned against "G"	H6	= H6/(sum of H1:H8)*100
F	Mentioned against "F"	H7	= H7/(sum of H1:H8)*100
I	Mentioned against "I"	H8	= H8/(sum of H1:H8)*100

The sum of A, B,C,D,E,F,G,H,I to be summed and to be sorted out in score/weightage column. If we will refer to be previous figure then the sum of A will be 12 ( i.e. A3+A1+A2+A3+A3 ) in the 1<sup>st</sup> line. Usually in evaluation or weighted average method we take 100% as the total weightage. So we can calculate in terms of 100% by using the above formula shown in the last column.

**Example**

Now we will see an example of selecting a safety shoe used in the industry in factor comparison method. This example is derived from an value engineering book “Getting More at Less Cost” by G Jagannathan<sup>5</sup>

**STEP-1**

Team formed comprise of departments from Production, Procurement, Safety, Personal & Industrial Relation (P&IR) and Union representatives.

**Step- 2 & 3**

Listing down the factors for evaluation along with identification to each factor.

Identity	Criteria
A	Safety
B	Durability
C	Reliability
D	Comfort
E	Availability
F	Cost
G	Acceptability

**Step- 4 & 5**

Comparing safety with all other factors along with degree of relative importance the 1<sup>st</sup> line of matrix will be

	B	C	D	E	F	G
A	A3	0	A2	A2	A2	A2

**Step- 6**

Comparing all factors with all factors and putting degree of relative importance we can observe a matrix like below.

	B	C	D	E	F	G
A	A3	0	A2	A2	A2	A2
B		C2	0	E1	B3	B2
C			D1	0	C1	C2
D				D1	D1	D2
E					E1	E2
F						F2

**Step-7**

Summing up the score and calculating the relative weightage with respect to 100%.

<sup>5</sup> G Jagannathan is a certified value specialist. He is having rich experience in value engineering field in TATA STEEL, Jamshedpur. This book was published in 1992 by Tata McGraw Hill Publication. Though this concept of factor comparison not used in supplier evaluation criteria by him, but it inspire directions to write this paper.

Identity	Factor	Score/ Weightage	Relative Wt. considering 100% in total (Rounding up)	
A	Safety	10	=10/30*100	33%
B	Durability	5	=5/30*100	17%
D	Comfort	5	=5/30*100	17%
C	Reliability	4	=4/30*100	13%
E	Availability	3	=3/30*100	10%
F	Cost	2	=2/30*100	7%
G	Acceptability	1	=1/30*100	3%

### LIMITATIONS & SCOPE FOR FURTHER RESEARCH

We strongly believe the concept of value engineering (Application of Factor analysis) to evaluate relative importance the supplier with a provision of some practical and theoretical insights is a good contribution to the supplier selection decision, we still have some limitations and concerns which will guide to further research opportunities. One of the primary limitations of the paper is that we have introduced a conceptual model and illustrative of example, rather than a real world application. If we will go through a real world application then practical problems will be surface out and to counter those problems, further investigations or review of models can be carried out. Secondly the team formation and taking a accurate call is also will be problematic in practical cases as many experts from all many fields will have diversifying conclusions. How to address this issue with this model is also needs to be looked at. Further in this model it may so happen one factor will have zero value depending upon situation, but from practical aspect this may not be true. In those cases improved factor comparison method need to be applied which is little more complex that factor comparison method.

The methodology applied here for sustainable supplier evaluation is almost from the buyer's or buying organizations perspective. We also need to go deep into the supplier perspective of evaluation, and then only sustainable supplier evaluation will have real meaning. What is the supplier organization needs to be a sustainable supplier that has to be reviewed in many ways. These will provide insights into which attributes suppliers need to focus on to become a preferred supplier.

### CONCLUSION

Current global business practices and market demand always forced the organizations to focus on their core competencies and outsource many of their business processes from outside suppliers. In past, this activity was only viewed from economical perspective. Now the environmental as well as social concerned by almost all countries and business houses forced the organizations to select green suppliers who are serious and effective. Government is also making very tight policies for environmental and social aspects. So the role of management becomes more complex while selecting suppliers from all three factors i.e. economical, social and environmental. We call it sustainable supplier.

We need to cross the boundaries of operational Excellency and profit lines. While doing business we also need to address the social issues and environmental issues. The day has come where the world is not looking who is making how large top or bottom line, all now observing how the organization is serving to the nation, world and the community associated with them. This attitude in corporate policy makers will create a better world to live and let live the future generations to come.

### REFERENCES

- Anon., 2001. Europe's steelmakers get lean and green. Business Week 3720 (February 19), 92.
- C. A. Weber, J. R. Current, and W. C. Benton, "Vendor selection criteria and methods," *European Journal of Operational Research*, vol. 50, pp. 2-18, 1991.
- C. Droge, R. Germain, and J. R. Stock, "Dimensions Underlying Retail Logistics and Their Relationship to Supplier Evaluation Criteria," *International Journal of Logistics Management*, vol. 2, pp. 19-25, 1991.
- Chen, C.-T., Lin, C.-T., & Huang, S.-F. (2006) "A fuzzy approach for supplier evaluation and selection in supply chain management," *International Journal of Production Economics*, Vol.102, No. 2, pp.289-301.
- Chunguang Bai, Joseph Sarkis : Supplier Selection and Sustainability: A Grey Rough Set Evaluation- GPMI Working Papers No. 2009-05 June 2009
- Corbett, C.J., Kleindorfer, P.R., 2003. Environmental management and operations management: introduction to the third special issue. *Production and Operations Management* 12 (3), 287-289.
- De Boer, L., Labro, E., & Morlacchi, P. ,(2001) "A review of methods supporting supplier selection," *European Journal of Purchasing & Supply Management*, Vol.7, No. 2, pp.75-89.
- Dickson, G. (1966). An analysis of vendor selection systems and decisions. *Journal of Purchase*, 2(1), 5-17.
- Enarsson, L. (1998). Evaluation of suppliers: how to consider the environment. *International Journal of Physical Distribution and Logistics Management*, 28(1), 5-17.
- Gauthier, C., (2005) "Measuring corporate social and environmental performance: the extended life-cycle assessment," *Journal of Business Ethics*, Vol.59, No.1, pp.199-206.
- Handfield, R., Walton, S. V., Sroufe R. and Melnyk, S. A., (2002) "Applying environmental criteria to supplier assessment: a study in the application of the Analytical Hierarchy Process," *European Journal of Operational Research*, Vol. 141, No.1, pp.70-87.

- Humphreys P. K., Wong Y. K. and Chan, F. T. S., (2003) "Integrating environmental criteria into the supplier selection process," *Journal of Materials Processing Technology*, Vol.138, No.1-3, pp.349-56.
- Jagannathan G, "Getting more at less cost"- Tata McGraw Hill, pp.77-80, 1992
- J. Sarkis and S. Talluri, "A Model for Strategic Supplier Selection," *The Journal of Supply Chain Management: A Global Review of Purchasing and Supply*, pp. 18-28, 2002.
- Jonathan D. Linton a\*, Robert Klassen b, Vaidyanathan Jayaraman c- Sustainable supply chains: An introduction - *Journal of Operations Management* 25 (2007) 1075–1082
- Kleindorfer, P.R., Singhal, K., van Wassenhove, L.N., 2005. Sustainable operations management. *Production and Operations Management* 14 (4), 482–492.
- Kongar, E. (2005). A comparative study on multiple criteria heuristic approaches for environmentally benign 3pls selection. In *3rd International Logistics and Supply Chain Congress*, pp. 23–24, Istanbul.
- Labuschagne, C., Brent, A.C., Claasen, S.J., 2005. Environmental and social impact considerations for sustainable project life cycle management in the process industry. *Corporate Social Responsibility and Environmental Management* 12, 38–54.
- Lee, A.H.I., Kang, H.-Y., Hsu, C.-F., Hung, H.-C., 2009. A green supplier selection model for high tech industry. *Expert Systems with Applications* 36 (4), 7917–7927.
- Noci, G. (1997). Designing green vendor rating systems for the assessment of a supplier's environmental performance. *European Journal of Purchasing and Supply Management*, 3(2), 103–114.
- O. Bayazit, B. Karpak, and A. Yagci, "A purchasing decision: Selecting a supplier for a construction company," *Journal of Systems Science and Systems Engineering*, vol. 15, pp. 217-231, 2006.
- Presley, A., Meade, L., Sarkis, J., 2007. A strategic sustainability justification methodology for organisational decisions: a reverse logistics illustration. *International Journal of Production Research* 45 (18–19), 4595–4620.
- President's Council on Sustainable Development, 1996. *Sustainable America: A New Consensus*. US Government Printing Office, Washington, DC.
- Rivoli, P., (2003) "Labor standards in the global economy: issues for investors," *Journal of Business Ethics*, Vol. 43, No. 2, pp. 223-32.
- Sarkis, J., and Talluri, S., (2002) "A Model for Strategic Supplier Selection", *Journal of Supply Chain Management*, Vol. 38, No. 1, pp 18-28.
- Sarkis, J. (1998). Evaluating environmentally conscious business practices. *European Journal of Operational Research*, 107(1), 159–174.
- Seuring S., Muller, M. (2008) "From a literature review to a conceptual framework for sustainable supply chain management," *Journal of Cleaner Production*, Vol. 16, No. 15, pp. 1699-1710.
- S. H. Ha and R. Krishnan, "A hybrid approach to supplier selection for the maintenance of a competitive supply chain," *Expert Systems with Applications*, vol. 34, pp. 1303-11, 2008.
- Stefan Seuring a\*, Martin Müller b : From a literature review to a conceptual framework for sustainable supply chain management - *Journal of Cleaner Production*, 2008
- Tierney, R.J., 2002. Green by design: factor ten goals at Pratt and Whitney. *Corporate Environmental Strategy* 9 (1), 52– 61.
- Worapon Thanaraksakul and Busaba Phruksaphanrat : Supplier Evaluation Framework Based on Balanced Scorecard with Integrated Corporate Social Responsibility Perspective - Proceedings of the International MultiConference of Engineers and Computer Scientists 2009 Vol III MECS 2009, March 18 - 20, 2009, Hong Kong
- Zhu, Q., Sarkis, J., & Lai, K.-h., (2008) "Confirmation of a measurement model for green supply chain management practices implementation," *International Journal of Production Economics*, Vol. 111, No. 2, pp. 261-273.
- Zhu, Q., Sarkis, J., Lai, K.-h., 2008. Confirmation of a measurement model for green supply chain management practices implementation.

## COMMODITIES TRADING WITH SPECIAL REFERENCE TO ALUMINIUM

**DR. A. VENKATA SEETHA MAHA LAKSHMI**

**READER & HEAD**

**DEPARTMENT OF COMMERCE**

**MONTESERI MAHILA KALASALA DEGREE COLLEGE**

**VIJAYAWADA – 520 010**

**RAAVI RADHIKA**

**ASST. PROFESSOR, HYDERABAD BUSINESS SCHOOL**

**GITAM UNIVERSITY**

**HYDERABAD – 502 329**

### ABSTRACT

*Commodity trading is the modern technique of reducing risk. The first organized futures market in India was established in 1875 by the 'Bombay Cotton Trade Association' to trade cotton. With the aim to create a nationwide efficient commodity exchange, which could provide price discovery and offer price-risk management to all participants involved in the commodity business cycle, Multi Commodity Exchange (MCX) was created in 2003. The study is conducted to give the concepts of commodities trading in India, various trends in commodity trading with special reference to Aluminium, the Role of Commodities in Financial Markets, to study In Detail the Role of Options in Aluminium commodities with special reference to HINDALCO a leading company in Aluminum sector. With the help of this Study it was found that Call Option is Profitable for Buyer and Put Option is Profitable for Seller.*

### KEYWORDS

Commodity derivatives, financial markets, Call option, Put options.

### INTRODUCTION

India is a developing country. Many people want to invest in financial market on Equities to get high returns. A better alternative is commodity trading as valuation of shares in India is more event-driven making it difficult to anticipate. On the other hand laws of demand and supply rather than sentiment rule the commodities markets.

Commodity is consumer durable good" certain Commodities used in our day-to-day existence can double up as investment avenues. The Copper is the best non-precious metal conductor of electricity. The wheat used for our breakfast breads. The gold that adorns our watches and our jeweler, the crude energy that is refined to run our cars, are some of the commodities traded on popular Exchanges Worldwide.

### THE HISTORY OF COMMODITIES TRADING

Historically, the biggest fortunes have been made in commodities trading. It started centuries before stock markets came into being. The first organized futures market in India was established in 1875 by the 'Bombay Cotton Trade Association' to trade in cotton. In mid 1960's, due to wars, natural calamities and the consequent shortages, futures trading in most commodities were banned. It took three decades before commodity futures could be re-initiated into Indian markets

### REASONS FOR FAILURE OF COMMODITY FUTURES EXCHANGES SO FAR

- Single commodity exchanges with low liquidity.
- Open outcry trading, which restricted trading to specific regions and prevented national reach.
- Dominance of speculators and inadequate participation from hedgers, resulted in high basis risk, as integration between physical and futures market was limited.
- Inefficient clearing and settlement procedures.
- Exchanges with inadequate infrastructure, logistics and financial funding

### RECENT DEVELOPMENTS

Forward Market Commission (FMC) the governing body for commodity trading in India in 2002 set up a Nation-wide Multi Commodity Exchange (MCX). To create a nationwide efficient commodity exchange, to provide price discovery and offer price-risk management to all participants involved in the commodity business cycle. The issue of single commodity exchanges with low liquidity has been addressed. The modern exchanges will enable multiple commodities trading on online world standard trading platforms, with nationwide reach.

The exchanges will provide real time price and trade data dissemination. The new exchanges maintain capital settlement guarantee funds and have stringent capital adequacy norms for brokers, which ensure trade guarantee to participants.

The exchanges will enable deliveries in electronic form. The institutions managing the new exchanges comprise banks and government organizations, which bring with them institutional building experience, trust, nationwide reach, technology and risk management skills. The new exchanges will have rule-based management by professionals having no trade interest.

### NEED FOR THE STUDY

Commodities' trading is the modern technique of reducing risk. Aluminum is a largely used metal because it is light and cheap. So, a study has been undertaken to study the pattern of commodity derivatives in HINDALCO a leading company in Aluminum sector.

### OBJECTIVES OF THE STUDY

The Study is focused on commodity market with special reference to Aluminum. This is another investment available for investors other than equities and debt instruments, where they need not invest huge amounts of money for long periods and can earn money with relatively less risk.

The study is conducted with the following objectives.

- To study the concepts of commodities trading in India.
- To study various trends in commodity trading with reference to Aluminum.
- To study the Role Of Commodities In Financial Markets
- To study the Role of Options in Aluminum commodities with special reference to HINDALCO.

## METHODOLOGY

### RESEARCH DESIGN: MEANING OF RESEARCH DESIGN

The formidable problem that follows the task of defining the research problem is the preparation of the design of the research project, popularly known as the "research design", decision regarding what where, how much, by what means concerning inquiry are research design. "A research design is the arrangement of condition or collection and analysis of data in manner that aims to combine relevance to research purpose with economy in procedure." In fact, the research design is the conceptual structure with in which research is conducted; it constitutes the blue print for collection, measurement and analysis to data. As such the design includes out line of what the researcher will do room writing the hypothesis and its operation and implication to the final analysis of data.

The research methodology is a way to systematically solve the research problem. It may be understood as the science of studying how research is done scientifically.

The studying on various steps that are generally adopted by a researcher is studying his research problem along with the logic behind them. It is necessary for the researcher to know not only research methods but also the methodology.

### CONCEPTUAL FRAME WORK OF COMMODITY TRADING AND INTRODUCTION TO DERIVATIVES

The emergence of the market for derivative products, most notably forward, futures and options, can be traced back to the willingness of risk-averse economic agents to guard themselves against uncertainties arising out of fluctuations in asset prices. By their very nature, the financial markets are marked by a very high degree of volatility.

Through the use of derivative products, it is possible to partially or fully transfer price risks by locking-in asset prices. As instruments of risk management, these generally do not influence the fluctuations in the underlying asset prices. Derivative products minimize the impact of

### FLUCTUATIONS IN ASSET PRICES ON THE PROFITABILITY AND CASH FLOW SITUATION OF RISK-AVERSE INVESTORS

**DERIVATIVES DEFINED:** Derivative is a product whose value is derived from the value of one or more basic variables, called bases (underlying asset, index, or reference rate), in a contractual manner. The underlying asset can be equity, forex, commodity or any other asset. For example, wheat farmers may wish to sell their harvest at a future date to eliminate the risk of a change in prices by that date. Such a transaction is an example of a derivative. The price of this derivative is driven by the spot price of wheat which is the "underlying".

**IN THE INDIAN CONTEXT THE SECURITIES CONTRACTS (REGULATION) ACT, 1956 (SC(R) A)** defines "derivative" to include.

1. A security derived from a debt instrument, share, loan whether secured or unsecured, risk instrument or contract for differences or any other form of security.
2. A contract which derives its value from the prices, or index of prices, of underlying securities.

**TYPES OF DERIVATIVES:** The most commonly used derivatives contracts are forwards, futures and options which we shall discuss in detail later. Here we take a brief look at various derivatives contracts that have come to be used.

**FORWARDS:** A forward contract is a customized contract between two entities, where settlement takes place on a specific date in the future at today's pre-agreed price.

**FUTURES:** A futures contract is an agreement between two parties to buy or sell an asset at a certain time in the future at a certain price. Futures contracts are special types of forward contracts in the sense that the former are standardized exchange-traded contracts.

### OPTIONS:

#### OPTIONS ARE OF TWO TYPES:

**CALL OPTIONS:** Calls give the buyer the right but not the obligation to buy a given quantity of the underlying asset, at a given price on or before a given future date.

**PUT OPTIONS:** Puts give the buyer the right, but not the obligation to sell a given quantity of the underlying asset at a given price on or before a given date.

**WARRANTS:** Options generally have lives of up to one year, the majority of options traded on options exchanges having a maximum maturity of nine months. Longer-dated options are called warrants and are generally traded over-the-counter.

**LEAPS:** The acronym LEAPS means Long-Term Equity Anticipation Securities. These are options having a maturity of up to three years.

**SWAPS:** Swaps are private agreements between two parties to exchange cash flows in the future according to a prearranged formula. They can be regarded as portfolios of forward contracts. The two commonly used swaps are:

1. Interest rate swaps
2. Currency swaps

### DEFINITION:

Commodities can be defined as follows "A commodity is a consumer durable good"

## SCOPE OF THE STUDY

The Study is focused on commodity derivatives i.e., Put option and Call Option of HINDALCO. The Study covers a period of 3 months from July 2009 to September 2009.

The Study has been observed on Option Price & Investors profit and their losses.

The scope of the Study is continuing towards price movement and market movement in Aluminum trading. Commodity derivatives is important place in derivatives trading, Aluminum is profitable Commodity Derivatives.

**INDUSTRY PROFILE**

Hindalco Industries Limited Established in 1958 at Renukoot in Eastern U.P. in 1962. The metals flagship company of the Aditya Birla Group, is an industry leader in aluminium and copper with a consolidated turnover of Rs.600,128 million (US\$ 15 billion) and is the world's largest aluminium rolling company and one of the biggest producers of primary aluminium in Asia. Its copper smelter is the world's largest custom smelter at a single location.

**DATA ANALYSIS & ANALYSIS**

**STUDY ON ALUMINIUM**

**INTRODUCTION**

- Aluminium is the third most abundant element in the Earth's crust.
- Aluminum is light. Its density is only one third of steel. Aluminium is resistant to weather, common atmospheric gases and a wide range of liquids. Aluminium has a high reflectivity, and therefore finds more decorative uses. Aluminium has high elasticity. This is an advantage in structures under stock loads.

**SUPPLY & DEMAND**

**GLOBAL SCENARIO**

Aluminium occurs mainly in tropical and sub-tropical areas – Africa, West Indies, South America, and Australia. There are also some deposits in Europe.

- The leading producing countries include the United States Russia, Canada, the European Union, China, and Australia.
- Brazil, Norway, South Africa, Venezuela, the gulf states (Bahrain & United Arab Emirates), India and New Zealand together they represent more than 90% of the world primary aluminium production
- The largest Aluminium markets are North America, Europe and East Asia.
- The global production of Aluminium is about 27.7 and 28.9 million tons in 2005 and 2006 respectively.
- China, Russia, Canada and United States produced about 6.1, 3.6, 2.64 and 2.5 million tons of Aluminium in the year 2006 respectively.

**INDIAN SCENARIO**

- India is considered the fifth largest producer of aluminium in the World.
- The identified reserves are estimated to be 7.5% of the total deposits and installed capacity is about 3% of the world.
- In terms of demand and supply, the situation is not only self-sufficient. India's annual export of aluminium is about 82000 tones.
- India's annual consumption of aluminium is around 6.18 lakh tones and is projected to increase to 7.8 lakh tones by 2010.

**WORLD ALUMINIUM FUTURES MARKETS**

LME, TOCOM, SHFE and NYMEX are the important international markets that provide direction to the aluminium prices.

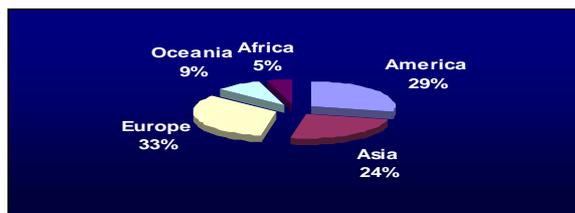
Factors Influencing Aluminium Markets:

- Aluminium prices in India are fixed on basis of the rates that are ruling on LME.
- Changes in the inventory stocks in LME, SHFE and TOCOM warehouses.
- World aluminium mine production through exploration of new mines and expansion of existing mine.
- Growth and demand in building, construction, packaging and transportation industry in major consuming countries such as China, Japan, Germany etc.

**DATA ANALYSIS AND ANALYSIS**

**World Primary Aluminum Production:**

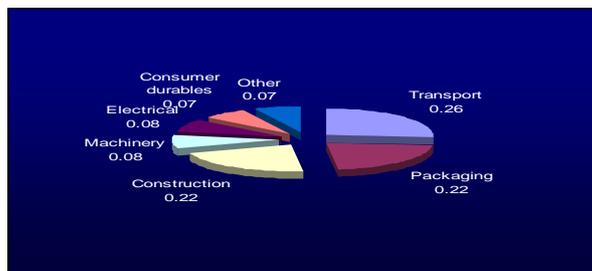
Region	%
America	29
Asia	24
Europe	33
Oceania	9
Africa	5
<b>Total</b>	<b>100</b>



**ANALYSIS:** The Aluminium is maximum produced in Europe 33% followed by America 29%, Asia 24%, Oceania 9% and Africa 5%.

**Industry Consumption:**

Industry	%
Transport	26
Packaging	22
Construction	22
Machinery	8
Electrical	8
Consumer durables	7
Other	7
<b>Total</b>	<b>100</b>



**ANALYSIS:** Transport Industry consumed maximum 26%, Packaging 22%, Construction 22%, Machinery 8%, Electrical 8%, Consumer Durables 7% and other 7%.

TABLE 1: CALL &amp; PUT OPTION FOR THE MONTH OF JULY, 2009

Date	Market Price	CALL OPTION STRIKE PRICE				PUT OPTION STRIKE PRICE			
		125	130	135	140	125	130	135	140
1-Jul	134.75	21.15	18.8	16.65	12.95	5.75	9.95	11.35	19.35
2-Jul	142.5	26.9	24.25	21.8	2.7	11.45	13.7	16.1	21.6
3-Jul	135.55	14.1	11.5	5.95	2.7	14.15	16.65	19.4	25.45
4-Jul	138.3	15.5	12.65	7.25	3.2	12.7	15.1	17.7	23.5
7-Jul	142.2	17.5	14.35	8.8	4.05	10.95	13.2	15.6	21.1
8-Jul	145.3	19.55	16.1	12	5.7	2.25	5	6	12.05
9-Jul	145.65	19.4	15.9	10.1	5.6	3	4.5	5	11.4
10-Jul	153.15	25.7	21.7	18	10.45	4.95	6.45	8.2	12.6
11-Jul	155.2	34.45	31.15	28.1	18.4	6.6	8.2	10.05	11.4
14-Jul	150.05	30.1	27	24.15	14.8	7.45	9.25	11.3	16.05
15-Jul	138.2	23.5	21	18.75	10.4	12.7	15.1	17.75	20.35
16-Jul	137.1	22.15	19.65	17.45	9.3	12.5	14.95	17.6	23.55
17-Jul	139.4	23.15	20.55	18.2	9.85	3.45	10.3	6	12
18-Jul	142.35	24.7	21.95	19.45	10.75	6.85	8.85	11.5	16.7
21-Jul	142.65	24.05	21.25	18.7	9.95	9.05	11.15	13.5	18.95
22-Jul	147.65	27.55	24.5	21.7	12.25	7.55	9.45	11.55	16.5
23-Jul	151.95	30.55	27.3	24.3	14.35	6.3	7.95	9.9	14.4
24-Jul	152.05	30.15	26.85	23.5	13.85	0.2	0.55	0.85	3
25-Jul	149.4	27.75	24.5	21.55	11.9	6.05	7.75	9.7	14.4
28-Jul	146.15	24.7	21.6	18.75	7.6	6.4	8.2	10.3	15.3
29-Jul	139.2	20.5	17.35	14.9	5.55	8.75	10.95	13.45	19.25
30-Jul	139.95	10	2.2	0.6	0.3	8.05	10.15	12.6	18.3
31-Jul	141.35	20.55	17.7	15.1	6	7.15	9.2	11.55	17.05

ANALYSIS:  
CALL OPTION

**BUYER'S PAYOFF:** The above table shows the Market Price and Strike Price of Call Option of HINDALCO for the one month period from 1<sup>st</sup> July 2009 to 31<sup>st</sup> July 2009.

The Lot size is 1759 and the investors who buy the lot at a price of 140 will get premium of Rs.6 Per share. The buyer Payoff is calculated using Black-Scholes model of option and future. The Settlement Price is 141.5.

**The Black- Scholes equation for option on forward contracts is:**

$$C = e^{-r \cdot t} [ F_{0,t} N(d_1^*) - E N(d_2^*) ]$$

Where

r = risk-free rate of interest

t = time until expiration for the forward and the option

F<sub>0,t</sub> = forward price for a contract expiring at time t

σ = standard deviation of the forward contract's price

$$d_2^* = d_1^* - \sigma \sqrt{t}$$

$$d_1^* = \frac{\ln(F/E) + .5\sigma^2 t}{\sigma \sqrt{t}}$$

If there were no uncertainty, N(d<sub>1</sub><sup>\*</sup>) and N(d<sub>2</sub><sup>\*</sup>) will equal 1 and the equation would simplify to:

$$C_f = e^{-rt}[F_{0,t} - E]$$

Strike Price	140
Spot Price	141.5
	-1.5
Premium	6
	-7.5
Loss (-7.5*1759)	-13192.5

Because it is negative it is out the money contract hence buyer will get loss in case spot price increase buyer loss will decrease.

**SELLERS PAYOFF:** It is out of the money for buyer so it is in the money for the seller. Hence he is in loss the Profit is equal to the loss of buyer 13192.5

**PUT OPTION**

**BUYER'S PAYOFF:** The above Table Shows the Market Price and Strike Price of Put Option of HINDALCO for the one Month period from 1<sup>st</sup> July 2009 to 31<sup>st</sup> July 2009.

The Lot size is 1759 and the Investors who buy the lot at a price of 130 will get Premium of Rs.9.2 per share.

The buyer Payoff is calculated using Black-Scholes model of option and future. The Settlement Price is 141.35. (Black-Scholes model mentioned under Table 1)

Spot Price	141.35
Strike Price	130
	11.35
Premium	9.2
	2.15
Profit (2.15*1759)	3781.85

Because it is Positive it is in the money contract hence buyer will get profit, in case Spot Price increase Buyer loss will decrease.

**SELLERS PAYOFF:** It is in of the money for Buyer so it is Out the money for the Seller. Hence Seller is in loss, the Profit is equal to the loss of Seller 3781.85

**TABLE 2: CALL & PUT OPTION FOR THE MONTH OF AUGUST, 2009**

Date	Market Price	CALL OPTION STRIKE PRICE				PUT OPTION STRIKE PRICE			
		130	135	140	150	130	135	140	150
1-Aug	141	15.9	16.95	14.35	10.1	15.9	16.95	14.35	10.1
4-Aug	142.15	20	12.75	14.3	9.9	20	12.75	14.3	9.9
5-Aug	142.45	19.75	20.55	13.95	9.5	19.75	20.55	13.95	9.5

6-Aug	141.75	15.1	15.8	13.1	8.7	15.1	15.8	13.1	8.7
7-Aug	142.45	15.35	15.85	10.65	8.6	15.35	15.85	10.65	8.6
8-Aug	144.85	20.55	20.9	18.1	13.3	20.55	20.9	18.1	13.3
11-Aug	144.45	16.25	12.35	9.8	4.95	16.25	12.35	9.8	4.95
12-Aug	142.4	14.3	14.55	11.7	7.2	14.3	14.55	11.7	7.2
13-Aug	139.6	19	16.1	13.55	9.35	19	16.1	13.55	9.35
14-Aug	135.95	16.45	13.8	11.45	7.75	16.45	13.8	11.45	7.75
18-Aug	129.55	7.6	2.1	4.55	2.25	7.6	2.1	4.55	2.25
19-Aug	132.55	4.4	8.2	4.55	2.6	4.4	8.2	4.55	2.6
20-Aug	133.6	14.8	12.3	10.15	6.7	14.8	12.3	10.15	6.7
21-Aug	128.45	6.2	6.1	3.5	2.25	6.2	6.1	3.5	2.25
22-Aug	134.65	16.35	13.85	11.6	8.05	16.35	13.85	11.6	8.05
25-Aug	134.5	15.6	13.05	10.85	7.3	15.6	13.05	10.85	7.3
26-Aug	135.6	15.9	13.25	10.95	7.3	15.9	13.25	10.95	7.3
27-Aug	139.2	8.75	3.8	0.55	0.05	8.75	3.8	0.55	0.05
28-Aug	120.6	3.9	5.75	4.6	0.7	3.9	5.75	4.6	0.7
29-Aug	122.4	10.8	9	4.9	1.05	10.8	9	4.9	1.05

**ANALYSIS:****CALL OPTION**

**BUYER'S PAYOFF:** The above Table Shows the Market Price and Strike Price of Call Option of HINDALCO for the one Month period from 1<sup>st</sup> August 2009 to 29<sup>th</sup> August 2009.

The Lot size is 1759 and the Investors who buy the lot at a price of 135 will get Premium of Rs.9 per share.

The buyer Payoff is calculated using Black-Scholes model of option and future. The Settlement Price is 122.4. (Black-Scholes model mentioned under Table 1)

Strike Price	135
Spot Price	122.4
	12.6
Premium	9
	3.6
Profit (3.6*1759)	6332.4

Because it is Positive it is in the money contract hence buyer will get profit, in case Spot Price increase Buyer loss will decrease.

**SELLERS PAYOFF:** It is In of the money for Buyer so it is Out the money for the Seller. Hence Seller is in loss, the Profit is equal to the loss of Seller 6332.4

**PUT OPTION**

**BUYER'S PAYOFF:** The above Table Shows the Market Price and Strike Price of Put Option of HINDALCO for the one Month period from 1<sup>st</sup> August 2009 to 29<sup>th</sup> August 2009.

The Lot size is 1759 and the Investors who buy the lot at a price of 135 will get Premium of Rs.9 per share.

The buyer Payoff is calculated using Black-Scholes model of option and future. The Settlement Price is 122.4. (Black-Scholes model mentioned under Table 1)

Spot Price	122.4
Strike Price	135
	-12.6
Premium	9
	-21.6
Loss (-21.6*1759)	37994.4

Because it is Negative it is out the money contract hence buyer will get Loss, in case Spot Price increase Buyer loss will decrease.

**SELLERS PAYOFF:** It is Out of the money for Buyer so it is In the money for the Seller. Hence Seller is in Profit, the Profit is equal to the loss of Buyer 37994.4

**TABLE 3: CALL & PUT OPTION FOR THE MONTH OF SEPTEMBER, 2009**

Date	Market Price	CALL OPTION STRIKE PRICE				PUT OPTION STRIKE PRICE			
		110	115	120	130	110	115	120	130
1-Sep	122.15	20.25	17.2	14.5	10.05	20.25	17.2	14.5	10.05
2-Sep	123.85	21.25	18.1	15.25	10.55	21.25	18.1	15.25	10.55
4-Sep	126.7	23.3	19.9	16.85	11.8	23.3	19.9	16.85	11.8
5-Sep	123.7	20.85	17.65	14.8	10.1	20.85	17.65	14.8	10.1
8-Sep	125.85	22.15	18.8	15.75	10.75	22.15	18.8	15.75	10.75
9-Sep	126.1	22.05	18.6	15.55	9.15	22.05	18.6	15.55	9.15
10-Sep	124.75	20.75	17.35	14.3	9.45	20.75	17.35	14.3	9.45

11-Sep	122.35	18.7	15.45	12.6	8.05	18.7	15.45	12.6	8.05
12-Sep	121.35	17.65	14.45	11.65	7.25	17.65	14.45	11.65	7.25
15-Sep	115.3	14.04	11.4	9.1	5.65	14.04	11.4	9.1	5.65
16-Sep	113.65	12.7	10.15	8.04	4.8	12.7	10.15	8.04	4.8
17-Sep	112.7	11.8	9.3	7.25	4.2	11.8	9.3	7.25	4.2
18-Sep	112.5	11.3	8.8	6.8	3.8	11.3	8.8	6.8	3.8
19-Sep	112.95	11.3	8.75	6.7	3.7	11.3	8.75	6.7	3.7
22-Sep	110.5	9.55	7.25	5.35	2.8	9.55	7.25	5.35	2.8
23-Sep	108.45	8.2	6.1	4.45	2.2	8.2	6.1	4.45	2.2
24-Sep	108.75	8.05	5.9	4.25	2.05	8.05	5.9	4.25	2.05
25-Sep	104.3	6.25	4.55	3.25	1.55	6.25	4.55	3.25	1.55
26-Sep	99.35	6.65	5.2	2.5	1.2	6.65	5.2	2.5	1.2
29-Sep	96.7	3.7	2.6	1.8	0.85	3.7	2.6	1.8	0.85
30-Sep	98.25	4	2.85	1.95	0.9	4	2.85	1.95	0.9

**ANALYSIS**

**CALL OPTION:**

**BUYER'S PAYOFF:** The above Table Shows the Market Price and Strike Price of Call Option of HINDALCO for the one Month period from 1<sup>st</sup> September 2009 to 30<sup>th</sup> September 2009.

The Lot size is 1759 and the Investors who buy the lot at a price of 110 will get Premium of Rs.4 per share.

The buyer Payoff is calculated using Black-Scholes model of option and future. The Settlement Price is 98.25. (Black-Scholes model mentioned under Table 1)

Strike Price	110
Spot Price	98.25
	11.75
Premium	4
Profit (7.75*1759)	13632.25

Because it is Positive it is in the money contract hence buyer will get profit, in case Spot Price increase Buyer loss will decrease.

**SELLERS PAYOFF:** It is In of the money for Buyer so it is Out the money for the Seller. Hence Seller is in loss, the Profit is equal to the loss of Seller 13632.25

**PUT OPTION:**

**BUYER'S PAYOFF:** The above Table Shows the Market Price and Strike Price of Put Option of HINDALCO for the one Month period from 1<sup>st</sup> September 2009 to 29<sup>th</sup> September 2009.

The Lot size is 1759 and the Investors who buy the lot at a price of 110 will get Premium of Rs.4 per share.

The buyer Payoff is calculated using Black-Scholes model of option and future. The Settlement Price is 98.25. (Black-Scholes model mentioned under Table 1)

Spot Price	98.25
Strike Price	110
	-11.75
Premium	4
	-15.75
Loss (-15.75*1759)	-27704.25

Because it is Negative it is out the money contract hence buyer will get Loss, in case Spot Price increase Buyer loss will decrease.

**SELLERS PAYOFF:** It is Out of the money for Buyer so it is In the money for the Seller. Hence Seller is in Profit, the Profit is equal to the loss of Buyer 27704.25

**CALL OPTION: CALL OPTION FOR THE LOT SIZE OF 1759**

Months	Buyer's Payoff	Profit/Loss
July	13192.5	Loss
August	6332.4	Profit
September	13632.25	Profit

**ANALYSIS:** The above table shows the Buyer's pay off Call Option from July-2009 to September-2009. By Observing 3 month for lot size of 1759 the Call Option is for Buyer is Profitable. The seller is getting loss here.

**PUT OPTION: PUT OPTION FOR A LOT SIZE OF 1759**

Months	Buyer's Payoff	Profit/Loss
July	3781.85	Profit
August	37994.4	Loss
September	27704.25	Loss

**ANALYSIS:** The above table shows the Buyer's payoff for Put Option for the month of July-2009 to September-2009. By Observing 3 month for lot size of 1759 the Put Option is for Buyer loss. The seller is getting Profit here.

**FINDINGS**

- Commodity Derivatives occupy an important place in derivatives trading. Derivatives offer less risk when compared to other securities.
- Aluminium is the third most abundant elements in the earth's crust. It is light in nature. India's annual export of Aluminium is 82,000 tones.
- Aluminium derivatives are found out to be profitable commodity derivatives.
- The calculation of Call Option for the month of July shows a loss to the buyer and Profit to the seller.
- Call Option for the month of August 2009 shows a profit of 6332.4 on a lot size of 1759 to the buyer and the Seller is getting loss here.
- Call Option in the month of September 2009 shows a profit of 13632.25 for the buyer on a lot size of 1759. The shows a Loss to the Seller.
- Put Option for the month of July 2009 shows a Profit of 3781.85 for the Buyer on a lot size of 1759 and shows a position of loss to the seller.
- Put Option for the month of August 2009 shows a Loss of 37994.4 for the Buyer on a lot size of 1759 and Profit for the Seller.
- Put Option for the month of September 2009 shows a Loss of 27704.25 for the Buyer on a lot size of 1759 and Profit for the Seller to the same amount

**SUGGESTIONS**

- Lot size can be reduced, because small investor can't afford this investment.
- Physical delivery of commodities service can be increased to attract more investors.
- Commodity trading is started in IIPCL recently. So the company can follow advertisement procedures to Create awareness about the commodities to the customers.
- Call Option is better for the investors as it is showing positive Buyer's payoff.

**CONCLUSION**

With the help of this Study it was found that Call Option are Profitable for Buyer and Put Option is Profitable for Seller. The Study shows that HIDALCO Call Option and Put Option actively traded in the stock market. Aluminium Options offer minimum risk and scope for earning more profits are in commodities trading. But the status of Commodity market is not that developed when compared to stock market and foreign exchange market. The Organizations dealing with Commodity market have to develop customer's awareness and thus can try to increase the reach ability to individual customers.

**BIBLIOGRAPHY****WEBSITES**

<http://www.5paisa.com/>  
<http://www.aluminium-messe.com/>  
<http://www.aluminium2009.com/>  
<http://www.nalcoindia.com/>  
<http://www.bseindia.com>  
<http://www.nseindia.com>

**BOOKS**

- ✓ JHON.C.HILL (2009), OPTIONS FUTURES AND OTHER DERIVATIVES, Published by prentice, hall of India Private Limited, 6<sup>th</sup> Edition.
- ✓ P.JONES (2005), INVESTMENT ANALYSIS AND MANAGEMENT, Published by Willy India Edition, 9<sup>th</sup> Edition.
- ✓ Y.P.SINGH (2006), FUNDAMENTALS OF INVESTMENT MANAGEMENT, Published by Galgotia Publishing Company,
- ✓ JACK CLARK FRANCIS RICHARD W.TAYLOR, INVESTMENTS, Published by Tata Mc.Graw-Hill.
- ✓ DEVID.A.DUBOFSKY, THOMAS W.MILLER,JR (2007), DERIVATIVES VALUATION AND RISK MANAGEMENT, Published by Arrangement with Oxford University Press

## RESPONSIBILITY AND ROLE OF LINE MANAGERS: AN EMPIRICAL STUDY

DR. DAVINDER SHARMA

ASSOCIATE PROFESSOR

BANARSIDAS CHANDIWALA INSTITUTE OF PROFESSIONAL STUDIES

DWARKA

NEW DELHI

### ABSTRACT

*This study is an attempt to assess the level of responsibility of line managers in HR activities. The information is collected from 176 line managers. The analysis indicates that line managers have moderate responsibility for HRM. Although their level of responsibility appears to be more in performance management and training and development related activities and less in compensation related activities. The study highlights the significant difference in certain HR activities of line managers based on the nature of business, ownerships of the organizations, the length of services and functional area of line managers.*

### KEYWORDS

HR, Responsibility, Managers, Performance, Training.

### INTRODUCTION

In the present phase of globalization, the devolution of HR responsibilities from HR managers to line managers has become a global trend (Larsen & Brewster 2003). Historically, HR activities have always been a part of the line manager's job. In small businesses, the owner-manager looks after all HR activities. And with the expansion of the business the owner may employ an HR professional or establish an HR department that provides expert advice and support for undertaking various HR activities. Brewster and Larsen (2000) identify that development of cost-centre or profit-centre based approaches for managing organizations, comprehensive approach to people management, growing influence of service industry, real time decision making, and changes in the philosophy and structure of organizations are responsible for the assignment of HR issues to the line.

### Earlier Literature

Personnel administration is a line responsibility and a staff function as indicated by Pigors and Myers (1973). It is a basic management responsibility, permeating all levels and types of management in all organizations. Beer et.al (1985) prescribes a general manager's perspective for HRM with four HRM policy choices such as employee influence, HR flow, reward system and work system. Brewster and Larsen (1992), Hoogn-doorn and Brewster (1992), Brewster and Soderstrom (1994) provided the evidence that HR role is increasingly assigned to line managers and the extent of such assignment varies from country to country. At a minimum, line managers conduct performance reviews, promotion decisions, and communicate terminations (McGovern et.al 1997). Jackson and Schuler (2000) treat managing human resources as a responsibility shared by line managers, HR professionals and employees. They propose partnership roles and responsibilities among these stakeholders for managing human resources. Line managers have responsibility for HRM in their respective work floors and HR professionals have to help line managers and coordinate HR functions across the organization.

### LINE MANAGERS HAVE RESPONSIBILITY FOR HRM IN THEIR RESPECTIVE WORK FLOORS AND HR PROFESSIONALS HAVE TO HELP LINE MANAGERS AND COORDINATE HR FUNCTION ACROSS THE ORGANIZATION

Previous research indicates positive as well as negative consequences of line managers' responsibility in HRM. Budhwar (2000) observes that development enables HR problems to be solved at a lower organizational level, creates more responsible line managers, and improved efficiency of employees. While, on the other hand, Bond and Wise (2003) believe that HR responsibility of line managers can result in devoting less time by line managers to HR issues than HR specialist would. This may result in people management that is fragmented, inconsistent and generally less effective than HR specialists could deliver. Renwick (2003) findings are that line managers are eager to take additional HR responsibilities, but are inadequately completing some HR work and try to reduce decision-making time by by-passing procedures. He also presents mixed evidence for whether line managers treat employees fairly and consistently. Perry and Kulik (2008) find a positive impact of devolution of HR to line managers on people management effectiveness.

### PRESENT STUDY

Research studies are conducted in Europe (Brewster & Larsen 1992, Brewster & Soderstrom 1994, Brewster & Larsen 2000, Larsen & Brewster 2003) and the USA (Perry & Kulik 2008) to examine the role of line managers in HRM in those countries. Some of the research papers mentioned above presents variations in line management responsibility for HRM. There is no similar study in India to examine the line management involvement in HRM. This has prompted to design and carry out the present study to:

1. Assess the extent of responsibility of line managers in various HRM activities.
2. Examine the variations in line managers' involvement in various HRM activities.
3. Find out the differences in their involvement based on the nature of business, ownership of organizations, length of line managers' service and functional areas.

### QUESTIONNAIRE DESIGN

Based on the literature and research survey, 23 HRM activities were identified in which line managers have some role to play in their organizations. A questionnaire was prepared with these activities that cover almost all HRM activities from human resource planning to

employee termination and covered: 1) human resource planning, 2) recruitment, 3) selection, 4) placement, 5) new employee orientation, 6) training needs identification, 7) training nominations, 8) training evaluation, 9) designing performance appraisal, 10) driving appraisal process, 11) evaluating performance, 12) performance counseling, 13) career planning, 14) transfer decisions, 15) promotion decisions, 16) salary decisions, 17) incentives, 18) employee benefits, 19) grievance handling, 20) discipline management, 21) managing absenteeism, 22) managing attrition, and 23) employee terminations. The respondents are expected to rate the level of their responsibility in discharging these HR activities. A five point scale is used to record the responses. One in the scale represents 'no responsibility', two 'minimum responsibility', three 'moderate responsibility', four 'high responsibility', and five 'complete responsibility' of line managers for that HR activity. In the last section of the questionnaire respondents answered questions relating to the nature of business the organizations carried out, ownership and respondent's functional areas and the length of service in the present organization.

#### SAMPLE

The questionnaire has been administered among 250 line managers (a manager who deals with any of the functional areas other than HR is considered as line manager for the purpose of the study). All these managers work in different organizations in which there is a HR department to support, help and guide line managers in people related issues and coordinate HR functions across the organization. 176 line managers could give usable filled in questionnaires for the purpose of the study. 41.48% of them represent manufacturing organizations; 37.05% are from IT/ITES; and the remaining 20.02% represent service sector. Ownership wise 28.41% of the respondents belong to service sector, 28.98% work in private sector companies other than multinationals, another 23.83% represent Indian Multinational companies, and the remaining 18.75% belong to foreign multinational companies located in India. Functional area wise, the respondents are distributed among operations (34.9%), marketing (28.41%), systems (19.32%), and maintenance (18.18%). 43.75% of the respondents have less than five years of work experience in their respective organizations; 38.64% range from five to ten years; and the remaining have ten and above years of experience.

Table 1: Background information of the respondents

SL. NO	ITEM	NUMBER OF RESPONDENTS	PERCENTAGE
1	Nature of business		
	a. Manufacturing	73	41.48
	b. IT/ITES	66	37.05
	c. Service	37	20.02
2	Ownership		
	a. Private sector	51	28.98
	b. Public sector	50	28.41
	c. Indian MNC	42	23.86
3	Functional area		
	a. Operations	60	34.09
	b. Marketing	50	28.41
	c. Systems	34	19.32
4	Length of service		
	a. Less than 5 years	77	43.75
	b. 5-10 years	68	38.64
	c. 10 and above years	31	17.61

#### METHOD OF ANALYSIS

Item wise analysis was carried out using percentages, means scores and standard deviations. One-way ANNOVA tests are used to find out differences in various responsibility items based on the nature of business, ownership of the organization, the line managers' experience and their functional areas. Tukey's HSD tests (not reported in this paper due to space constraints) are used for multiple comparisons among the items for which one-way ANNOVA tests have found significant differences.

#### ANALYSIS & FINDINGS

The percentages, means scores, and standard deviations of all 23 items of HRM are presented in table 2. These items may be classified into human resource acquisition, training and development, performance management, internal mobility, employee compensation, and employee relations. This classification covers all major functional areas of HRM, in which line managers have responsibility.

**Employee acquisition:** human resource planning, recruitment, selection and placement are included in employee acquisition activities in this study. It is calculated that together the average mean score of all these four items is 2.95 indicating moderate responsibility of line managers in employee acquisition function. When compared with the four items, placement and selection have secured more score, whereas recruitment activity has secured a relatively lesser score. One-fourth of the respondents do not have any responsibility with respect to recruitment of their employees. On the other hand, a single largest group (36.93%) has high responsibility in employee selection.

Table 2: Levels of Responsibility of Line managers on various HR activities (%)

Sl. No.	Items	No responsibility (1)	Minimum (2)	Moderate (3)	High (4)	Complete (5)	Mean	S.D.
1	Human resource planning	10.23	25.57	36.93	18.75	8.52	2.90	1.09
2	Recruitment	25.00	18.75	30.68	18.75	6.82	2.64	1.23
3	Selection	12.5	14.77	28.41	36.93	7.39	3.12	1.14
4	Placement	11.93	17.61	27.84	31.25	11.36	3.13	1.19
5	Orientation	17.05	17.05	28.41	22.16	15.34	3.02	1.30
6	Training Need Assessment	4.55	13.07	26.14	38.64	17.61	3.52	1.07
7	Training Nomination	5.68	12.5	17.61	41.48	22.73	3.63	1.13

8	Training Evaluation	10.8	19.32	29.55	30.11	10.23	3.10	1.15
9	Designing Performance Appraisal	23.86	16.48	23.86	23.86	11.93	2.84	1.35
10	Driving Appraisal Process	16.48	21.02	28.98	18.18	15.34	2.95	1.29
11	Evaluating Performance	1.7	10.23	19.89	35.23	32.95	3.88	1.04
12	Performance Counseling	5.11	14.2	24.43	35.23	21.02	3.53	1.13
13	Career Planning	11.93	19.32	23.3	28.98	16.48	3.19	1.26
14	Transfer Decision	16.48	15.91	31.82	25.57	10.23	2.97	1.22
15	Promotion Decisions	8.52	15.34	28.98	30.11	17.05	3.32	1.18
16	Salary Decisions	26.7	18.18	32.95	15.91	6.25	2.57	1.22
17	Incentives	34.09	28.98	25.57	7.39	3.98	2.18	1.11
18	Benefits and Services	48.3	26.14	14.77	8.52	2.27	1.9	1.08
19	Grievance Handling	7.39	18.18	39.77	26.7	7.95	3.10	1.03
20	Discipline Management	9.66	17.61	31.25	25.57	15.91	3.20	1.19
21	Managing Absenteeism	7.39	19.89	23.86	30.68	18.18	3.32	1.20
22	Managing Attrition	17.61	26.14	31.82	13.64	10.8	2.74	1.21
23	Termination	25.57	22.16	27.27	15.91	9.09	2.61	1.27

**Training and development:** New employee orientation, assessment of training needs, nominations to training programmes, and training evaluation are included under training and development function in this study. The overall responsibility level of line managers seems to be moderate with regard to training and development also. They have a high level of responsibility in training needs assessment and nominating employees for various training and development programmes, however.

**The overall responsibility level of line managers seems to be moderate with regard to training and development.**

**Performance Management:** The items included under performance management are: designing performance appraisal system, driving appraisal process, evaluating employee performance, and performance counseling. In this functional area of HRM also, the level of responsibility of line managers appears to be moderate. However, managers have a high level of responsibility for evaluating their employees' performance and extending performance counseling to them. But the line managers' role is less than moderate in the activities of designing performance appraisal system and driving performance appraisal process. Nearly one-fourth of the respondent line managers have no role to play in designing appraisal system for their employees.

**Internal Mobility:** The items such as career planning, transfer decisions and promotion decisions are included in this study. The average mean score of all the three items together indicates moderate responsibility of line managers. It has been noticed that their responsibility level is higher in promoting employees than career planning and transfers. Transfer decisions item has secured relatively lesser score.

**Overall, the line managers have not much role to play in this vital function of HRM.**

**Compensation:** Salary decisions, incentive payment and employee benefits and services are included here to find out the level of responsibility of line managers in employee compensation related matters. Overall, the line managers have not much role to play in this vital function of HRM as the mean score of the three items together indicates the minimum responsibility of line managers on compensation issues. More than one-fourth of the line managers have no role to play with respect to salary issues of their employees; about 34% of the respondents have the same position with regard to incentive payments for their employees and near 50% of them are in a similar situation as far as employee benefits and services are concerned.

**Employee Relations:** Items such as grievance handling, discipline management, managing absenteeism, managing attrition and employee termination are included under employee relations. The responsibility level of line managers seems to be moderate on employee relations issues. However, they have relatively more responsibility in managing absenteeism, discipline, and handling grievance of their employees when compared to managing attrition and employee terminations.

**All line managers, irrespective of the organizations they belong to, their length of service and their functional areas, have moderate responsibility in HRM activities.**

**Comparative analysis:** As presented in table 3, the overall mean scores indicate not much difference in line managers' responsibilities in HRM. It seems that all line managers, irrespective of the organizations they belong to, their length of service and their functional areas, have moderate responsibility in HRM activities. However, line managers in IT and ITES business appear to be slightly more associated with HR activities followed by manufacturing and service organizations. Ownership wise, on the whole, it seems that line managers of multinational companies, both Indian and foreign, are slightly better associated with HR activities than with the others. With respect to length of service, it has been noticed that line managers with 5-10 years of service are slightly better associated with HR activities than their counterparts. It seems that line managers working in systems area are better involved in HR as compared to other line managers in the functional areas of operations, marketing and maintenance.

**Table 3: Overall Mean Scores**

SL. NO.	ITEM	MEAN SCORES
1	Nature of business	
	a. IT/ITES	3.05
	b. Manufacturing	3.01
2	Ownership	
	a. Indian MNC	3.11
	b. Foreign MNC	3.10
3	Functional Area	
	a. Systems	3.28
	b. Maintenance	3.10

	c. Operations	2.90
	d. Marketing	2.90
4	Length of service	
	a. Less than 5 years	3.00
	b. 5-10 years	3.05
	c. 10 and above years	2.93

**Nature of Business:** One-way ANOVA test results (table 4) show that out of 23 HR responsibility items, significant differences are found in three items such as orientation, promotion decisions, and employee benefits and services based on the nature of business. The results of Tukey's HSD test for multiple comparisons indicate that the involvement of line managers in new employee orientation programmes and promotion decisions is relatively more in IT/ITES organizations as compared to manufacturing and service organizations. However the responsibility of line managers belonging to manufacturing sector appears to be relatively more with respect to employee benefits and services as compared to others.

**Table 4: One-way ANOVA Test Results on the Responsibility Items by Nature of Business**

RESPONSIBILITY ITEMS	MEAN SCORE (SD)			F-STATISTIC
	MANUFACTURING (N=73)	SERVICE (N=37)	IT & ITES (N=66)	
Orientation	3.03 (1.18)	2.59 (1.54)	3.24 (1.25)	3.003*
Promotion Decisions	3.33 (1.27)	2.84 (1.07)	3.58 (1.05)	4.876*
Benefits and services	2.08 (1.09)	2.00 (1.31)	1.65 (0.89)	2.992*

\* Significant @ 0.05 level

§ only those items for which F-Statistic is significant are shown

**Ownership:** As presented in Table 5, one-way ANOVA test results indicate that there is a significant difference in the responsibilities of line managers with respect to five items out of 23 items based on the ownership of the organizations. They are: performance counseling, career planning, salary decisions, grievance handling, and employee termination. Based on the results of Tukey's HSD test for multiple comparisons, it has been observed that the line managers working in Indian multinational companies take more responsibility with respect to performance counseling and career planning of their employees as compared to other types of ownership. This is followed by private sector. However, the line managers in foreign multinational companies are more associated with salary decisions as compared to others. Further, line managers in Indian multinational companies are more involved in their employee grievance redressal as compared to line managers in private sector. With respect to employee terminations, the line managers in foreign multinational companies have more responsibility than their counterparts.

**Line managers in Indian multinational companies are more involved in their employee grievance redressal as compared to line managers in private sector.**

**Table 5: One-way ANOVA Test Results on the responsibility items by Ownership**

RESPONSIBILITY ITEMS	MEAN SCORE (SD)				F-STATISTIC
	PUBLIC (N=50)	PRIVATE (N=51)	IMNC (N=42)	FMNC (N=33)	
Performance Counseling	3.48 (1.30)	3.24 (1.12)	3.93 (0.92)	3.55 (0.97)	3.058*
Career Planning	2.80 (1.48)	3.12 (1.14)	3.57 (1.27)	3.39 (0.86)	3.341*
Salary Decisions	2.10 (1.25)	2.71 (1.14)	2.62 (1.21)	3.00 (1.12)	4.327*
Grievance Handling	3.10 (1.04)	2.76 (0.99)	3.36 (0.98)	3.27 (1.04)	3.095*
Termination	2.26 (1.34)	2.65 (1.21)	2.62 (1.31)	3.06 (1.12)	2.728*

\* Significant @ 0.05 level

§ only those items for which F-Statistic is significant are shown

**Length of Service:** One-way ANOVA test results show a significant difference in one of the items of responsibilities that is orientation (table 6). Interestingly, it has been observed that line managers with less than five years of experience have relatively more responsibility in new employee orientation programmes than those with five and above years of experience.

**Table 6: One-way ANOVA Test Results on the responsibility items by Length of service**

RESPONSIBILITY ITEMS	MEAN SCORE (SD)			F-STATISTIC
	Less than 5 years	5-10 years	10 years & above	
Orientation	3.23 (1.19)	2.71 (1.23)	3.16 (1.59)	3.279*§

\* Significant @ 0.05 level

§ Tukey's HSD test is significant for less than 5 years visa-a-vis 5-10 years of service group

**Functional Areas:** There are variations in six HR responsibility items of line managers based on their respective functional areas (table 7): recruitment, training evaluation, salary decisions, grievance handling, managing discipline, and managing attrition. Line managers in functional areas of maintenance and systems are more associated with recruitment activities as compared to their counterparts. Salary decisions, grievance handling, managing discipline, and managing attrition, involvement of line managers in systems area is more than others.

**Table 7: One-way ANOVA Test Results on the responsibility items by Functional Area**

RESPONSIBILITY ITEMS	MEAN SCORE (SD)				F-STATISTIC
	OPERATION (N=60)	MARKETING (N=50)	SYSTEMS (N=34)	MAINTENANCE (N=32)	

Recruitment	2.28 (1.19)	2.54 (1.05)	2.97 (1.34)	3.09 (1.28)	4.257*
Training Evaluation	3.02 (1.16)	2.70 (1.15)	3.82 (0.83)	3.09 (1.15)	7.256*
Salary Decisions	2.22 (1.21)	2.58 (1.16)	3.03 (1.09)	2.72 (1.30)	3.617*
Grievance Handling	2.92 (1.06)	2.94 (0.98)	3.50 (0.99)	3.25 (0.98)	3.082*
Discipline Management	3.13 (1.10)	2.96 (1.32)	3.68 (1.04)	3.22 (1.21)	2.622*
Managing Attrition	2.38 (1.09)	2.86 (1.29)	3.12 (1.23)	2.81 (1.18)	3.134*

\* Significant @ 0.05 level

§ only those items for which F-Statistic is significant are shown

## DISCUSSION

It seems that line managers have moderate responsibility for all HR functions. This might be because of sharing of responsibility of HRM between HR department and line managers in these organizations. All respondents' organizations have a separate HR department in place that conducts and coordinates HR activities. However, one way or the other, line managers are involved in HR activities.

***It seems that line managers have moderate responsibility for all HR functions.***

In some of the HR activities, namely, employee performance evaluation, performance counseling, training needs assessment, and nominating to training programmes, line managers have a high role to play. This will help the organizations in its human resource development efforts. However, with regard to employee compensation issues such as salary decisions, incentive payments and employee benefits and services, the role of line managers is not significant. This might be because of organizational policies and practices. Generally pay scales are decided and revised through collective bargaining process in the unionized organizations. Individual bargaining takes place for salary fixation in non-union situations during final selection process. HR department plays a critical role in this issue to bring equity, both internal and external, in employee compensation. Incentives might be decided in collective bargaining agreement or as per company policies and practices. Employee benefits and services are extended to employees as agreed in collective bargaining or company policies that are in conformity with the prevailing legal framework. HR department, being a centralized agency for coordinating HR function across the organization, administer employee benefits and services. Thus line managers are relieved from these HR activities that help them to focus on their respective operation activities and HR issues of their employees at the operations level.

***With regard to employee compensation issues such as salary decisions, incentive payments and employee benefits and services, the role of line managers is not significant.***

## CONCLUSIONS & IMPLICATIONS

Line managers have higher responsibility with respect to performance management, training and development and lower responsibility in employee compensation systems. There are significant differences in the role of line managers based on the nature of business undertaken by their organizations in the areas of performance counseling, career planning, salary decisions, and grievance handling and employee termination. Based on the ownership of the organizations, there are significant differences in the managers' role in performance counseling, career planning, salary decisions, and grievance handling and employee termination. Based on the length of service of the respondents, however, the difference in the HR role of line managers is found only in new employee orientation. Functional area wise, the differences are observed in the responsibilities of recruitment, training evaluation, salary decisions, grievance handling and managing discipline and attrition. On the whole, it seems that line managers have moderate responsibility for HRM. This indicates sharing of HR responsibility with HR department. It may be concluded that there is a partnership relationship between HR department and line managers in discharging people management function. This enables line managers to solve HR problems at the operations level with the help of HR department.

## REFERENCES

- Beer, M., Spector, B., Lawrence, P., Mills, D., & Walton, R. (1985), *Human Resource Management: A General Manager's Perspective*, New York, Free Press.
- Bond, S. & Wise, S. (2003), "Family Leaves Policies and Devolution to the Line," *Personnel Review*, 32:58-72
- Brewster, C. & Larsen, H. H. (1992), "Human Resource Management in Europe: Evidence from Ten Countries", *International Journal of Human Resource Management*, 3 (3): 409-34.
- Brewster, C. & Larsen, H. H. (2000), "Responsibility in Human Resource Management: The Role of the Line" in Brewster, C. & Larsen, H.H. (Eds), *Human Resource Management in Northern Europe: Trends, Dilemmas and Strategy*, Oxford, Blackwells.
- Brewster, C. & Soderstrom, M. (1994), "Human Resource and Line Management", in Brewster, C., Hegewisch, A. (Eds), *Policy and Practice in European Human Resource Management*, London, Routledge.
- Budhwar, P.S. (2000), "Evaluating Levels of Strategic Integration and Development of Human Resource Management in UK," *Personnel Review*, 29: 141-57
- Hoogendoorn, J. & Brewster, C. (1992), "Human Resource Aspects: Decentralization and Devolution," *Personnel Review*, 29 (1): 4-11.
- Jackson, S. & Schuler, R.S. (2000), *Managing Human Resources: A Partnership Perspective*, Ohio: South-Western College Publishing.
- Larsen, H. H. & Brewster, C. (2003), "Line Management Responsibility for HRM: What is happening in Europe?" *Employee Relations*, 25 (3): 228-44
- McGovern, P., Gratton, L., Hope-Hailey, V., Stiles, P. & Truss, C. (1997), "Human Resource Management on the Line?" *Human Resource Management Journal*, 7: 12-29
- Perry, E.L. & Kulik, C.T. (2008), "The Devolution of HR to the Line: Implications for Perceptions of People Management Effectiveness", *The International Journal of Human Resource Management*, 19 (2): 262-73
- Pigors, P. & Myers, C.A. (1973), *Personnel Administration: A point of view and a method*, Tokyo: McGraw-Hill, 24-39
- Renwick, D (2003), "Line Manager Involvement in HRM: An Inside View," *Employee Relations*, 25 (3): 262-80

## MARKET BASKET ANALYSIS TO THE RESCUE OF RETAIL INDUSTRY

MR. R. NAVEEN KUMAR

ASST. PROFESSOR

SHRI NEHRU MAHA VIDYALAYA OF MANAGEMENT STUDIES  
COIMBATORE

DR. G. RAVINDRAN

ASSOCIATE PROFESSOR

SCHOOL OF MANAGEMENT  
KARUNYA UNIVERSITY  
COIMBATORE- 641 114

### ABSTRACT

Retail industry is moving with a great pace in the Indian market, it has to set parameters to identify and measure the performance of participants in the market. A retailer may group its customers based on purchases and can do various analyses to determine which different products should be merchandized together to improve sales and revenue. This analysis helps in deciding the store layout, product assortment, and promotional plans and cross selling opportunities. Market-basket analysis is an effective way to ascertain the relationship between products. It is an analysis made on customers purchasing behavior during same visit and single order. Data mining techniques are used to ascertain the combination of categories within a customer's "basket". Now-a-days, market basket analysis has been intensively used in many companies as a means to discover product associations and helps retailers in promotion strategy.

### KEYWORDS

Market Basket Analysis (MBA), Financial pressures, Cross-product Promotions, Popular products, and Purchasing pattern

### INTRODUCTION

Market basket analysis is a popular technique used by retailers to understand what products or services are commonly purchased together. Market basket analysis identifies customers purchasing habits. It provides insight into the combination of products within a customer's 'basket'. Ultimately, the purchasing insights provide the potential to create cross sell propositions, which product combinations are bought, when they are purchased; and in what sequence. The end result of the analysis should help companies to determine how to grow each customer's basket. This information will enable the retailer to understand the buyer's needs and rewrite the store's layout accordingly, develop cross-promotional programs, or even capture new buyers.

### CONSUMER PREFERENCE

One of the main uses of market baskets is in analysis of consumer preference, which is important for theoretical microeconomics as well as general-purpose business marketing strategy. Standard microeconomics suggests that consumers select what to buy by theorizing about market baskets, and that because people seek certain market baskets over others based on their preferences, we can figure out consumer preferences based on which market baskets they purchase.

### MARKET AFFINITY ANALYSIS

One type of affinity analysis, whereby data analysts and others use computers to find correlations in data, is market basket analysis. Market basket analysis is used in retail to try to understand the behavior of consumers, thereby using this information to benefit sales. For consumer analysts' purposes, market baskets are not representative cross-sections of available market goods (as they are for measuring inflation), but are highly specific market items that tend to be bought together. Retail websites like Amazon.com, for example, use market basket analysis to try to predict which other products (books, CDs, etc.) are similar to ones purchased and therefore likely to be bought by a consumer. Grocery companies use market basket analysis to try to determine which shoppers buy which products together, and seek to maximize profits using improved store layouts and cross-product promotions. Ultimately, the purchasing insights provide the potential to create cross sell propositions:

- Which product combinations are bought
- When they are purchased; and in
- What sequence

### EMPOWERING THE RETAIL PLANNERS

Retailers need better tools to help the planners and the merchants. "Planning is one of the faster growing parts of the retail business. The intuition of the crusty old-school buyer is a myth because there is a lack of information. That's why planning came to be; there didn't used to be planners". A good planner asks, "How much should we buy, how are we going to display, and what is the lifecycle of this product. It takes a partnership between the retail planners and the merchants to determine. We can sell fast enough to cover carrying costs and will the initial markup provide sufficient margins to promote to sell. These high-value, high-risk decisions can be significantly improved with the customer insights provided by Market Basket Analysis (MBA).

### ATTRACT MORE TRAFFIC INTO STORE

Retailers can better understand which products and offers will get more customers into the store by correlating MBA with foot traffic counts, then attachment rates, to understand what they purchased once you got them into the store. "The things you are giving away get them in, but

what do they buy when they come in? What is the 'attachment' to the loss-leader?" once the retailer knows what brought a customer into the store, they can use MBA to understand how to keep that customer coming back.

#### **MORE PROFITABLE ADVERTISING AND PROMOTION**

Retailers are using MBA to make advertising and promotions more predictable by understanding how buyers respond to different offers and communications vehicles. For example, MBA can help retailers avoid unnecessary discounts by understanding when and where discounts will make a difference to top line sales, knowing that a reduction in unnecessary markdowns will improve gross margins. Retailers also want to separate sales trends from the advertising effect to understand, "Is our promotion just shifting revenue around or really uplifting gross sales? How did sales change and is this meaningful or not."

#### **TEST AND LEARN BY USING THE MARKET PLACE AS A LABORATORY**

Some retailers described how they use MBA to determine the value of an incremental marketing event at a select "control group" of stores, and then run the analysis another "test group" of stores. For example, retailers described using MBA to determine how they can increase the average ticket value without having to spend more or sacrifice margin. They do this by separating the base sales trend from the "advertising effect" for the same time frame.

#### **BETTER LOYALTY CARD PROMOTION**

Market basket analysis allows retailers to characterize the buying behavior of customers over time, leveraging that knowledge for better understanding of their customer bases. Retailers use loyalty cards to capture customer lifecycle data so that they can analyze a customer's lifetime purchasing behavior, such as shopping frequency or shifts in categories.

### **LITERATURE REVIEW**

**Yen-Liang Chen, Kwei Tang Ren-Jie Shen and Ya-Han Hu:** Market basket analysis (also known as association-rule mining) is a useful method of discovering customer purchasing patterns by extracting associations or co-occurrences from stores' transactional databases. Because the information obtained from the analysis can be used in forming marketing, sales, service, and operation strategies, it has drawn increased research interest. The existing methods, however, may fail to discover important purchasing patterns in a multi-store environment, because of an implicit assumption that products under consideration are on shelf all the time across all stores. In this paper, we propose a new method to overcome this weakness. Our empirical evaluation shows that the proposed method is computationally efficient, and that it has advantage over the traditional method when stores are diverse in size, product mix changes rapidly over time, and larger numbers of stores and periods are considered.

**MÄuller-Hagedorn 1978** :- A market or shopping basket is representing the result of a specific consumer's decision making process on the choice or non-choice of product categories among the assortment ordered by a retail outlet during one and the same shopping trip. Retail managers are interested in better understanding the interdependency structure among categories purchased jointly by their customers for several reasons. Traditionally, insights into cross-category dependencies and corresponding marketing mix effects are of particular interest for optimizing the overall profitability of retail category management,

Market baskets arise from consumers' shopping trips and include items from multiple categories that are frequently chosen interdependently from each other. Explanatory models of multi category choice behaviour explicitly allow for such category purchase dependencies. They typically estimate own and across-category effects of marketing-mix variables on purchase incidences for a predefined set of product categories. Because of analytical restrictions, however, multicategory choice models can only handle a small number of categories. Hence, for large retail assortments, the issue emerges of how to determine the composition of shopping baskets with a meaningful selection of categories.

**Manchanda et al. 1999; Song and Chintagunta 2003; Chen et al. 2005).** However, most of the attempts towards this direction are restricted to fairly small selections of (sub-) categories. Naturally, today's large retail assortments not only make the consideration of complete category ranges prohibitive but also managerially inexpedient. Nevertheless, in most empirical applications both types and numbers of included categories seem to be rather guided by analytical viability than by sound managerial considerations. Hence, the question arises which categories to be included in models for predicting cross-category effects that adequately represent consumers multi-category decisions. More recently, numerous retailers have equipped members of their loyalty programs with bar-coded plastic cards and provided various incentives (such as discounts or check cashing privileges) to encourage their regular customers to present their membership cards at each purchase occasion (cf., e.g., Passingham 1998). Combined with modern point-of-sale (POS) scanning technologies, those retailers are nowadays collecting tremendous amounts of personally identifiable POS transaction data. Among other things, the latter are dissembling valuable behavioral information on cross-category purchase patterns of their prime customers.

**JUSTIN on DECEMBER 13, 2006,** Market Basket Analysis is a modeling technique based upon the theory that if you buy a certain group of items, you are more (or less) likely to buy another group of items. For example, if you are in an English pub and you buy a pint of beer and don't buy a bar meal, you are more likely to buy crisps (US. chips) at the same time than somebody who didn't buy beer. The set of items a customer buys is referred to as an item-set, and market basket analysis seeks to find relationships between purchases. Typically the relationship will be in the form of a rule: IF {beer, no bar meal} THEN {crisps}. The probability that a customer will buy beer without a bar meal (i.e. that the antecedent is true) is referred to as the support for the rule. The conditional probability that a customer will purchase crisps is referred to as the confidence. The algorithms for performing market basket analysis are fairly straightforward. The complexities mainly arise in exploiting taxonomies, avoiding combinatorial explosions (a supermarket may stock 10,000 or more line items), and dealing with the large amounts of transaction data that may be available.

**Prof. Dr Reinhold Decker:** This paper demonstrates the application of a new growing neural network for market basket analysis. The algorithm to be introduced is an extension of the recently published 'grow when required network' and it is tailored in particular to the processing of large amounts of point of sale scanner data. Two of its most remarkable features are its parsimony regarding the number of parameters to be preset by the user and its considerable autonomy with respect to the network creation process. The simplicity of its implementation and its great flexibility make this algorithm an easy-to-use tool for exploratory data analysis in retailing, marketing and consumer research. The application of the algorithm is demonstrated by means of point of sale scanner data provided by two retail chains.

**Asemin Boztuğ and Thomas Reutterer** Market baskets arise from consumers' shopping trips and include items from multiple categories that are frequently chosen interdependently from each other. Explanatory models of multicategory choice behaviour explicitly allow for such category purchase dependencies. They typically estimate own and across-category effects of marketing-mix variables on purchase incidences for a predefined set of product categories. Because of analytical restrictions, however, multicategory choice models can only handle a small

number of categories. Hence, for large retail assortments, the issue emerges of how to determine the composition of shopping baskets with a meaningful selection of categories.

### STATEMENT OF THE PROBLEM

The age old problem is stocking too much of the wrong merchandise and not enough of the right. The right merchandise moves and the wrong stuff sit until it is marked down. The buyer's life is further complicated when he or she cannot obtain sufficient quantities of popular products, or when pressured by suppliers to buy uncomfortably large quantities of less popular products. These competitive and financial pressures motivate retailers to seek better tools that will improve their ability to manage through these situations.

### OBJECTIVE OF THE STUDY

1. To study the theoretical aspects and the concepts of market basket analysis.
2. To know the customer purchasing pattern and their behavior.
3. To identify the satisfaction level of retail organizations towards the benefits of market basket analysis.
4. To offer suggestions based on the results of the study.

### METHODOLOGY OF THE STUDY

The datum was collected from the primary and secondary sources i.e. from Books, Magazines, and Journals and from Internet. For the study a sample of 110 respondents had been selected to collect data in Coimbatore district with the help of questionnaire. The statistical tool used for the data analysis in the study is Simple Percentage, Chi-square Analysis, and Rank Analysis. The period of the study is August to October 2010.

### ANALYSIS AND INTERPRETATION OF DATA

Table: 1 Chi-square analysis for income level of customers and the schemes provided by the retailer

Schemes	Discount	Seasonal sales	Point card	Scratch card	Others	Total
5000 - 10000	8	4	6	5	3	26
10001 - 20000	3	16	8	4	3	34
20001 - 30000	2	14	6	2	2	26
30000 and above	1	6	8	7	2	24
total	14	40	28	18	10	110

Table: 2 Chi-square analysis for gender and impulse purchase decision

Impulse purchase	Yes	No	Total
Male	67	27	94
Female	6	10	16
Total	73	37	110

Table: 3 Rank correlations

Rank correlation	Rank
Selection	2
Display	3
Advertisement	4
Quality	5
Price	1

### RESULT

Chi-square	12.59
Chi-square	3.841
Rank correlation	0.031

### FINDINGS

1. Table 1 shows that chi-square has been taken for the income level of the customers and schemes provided by the retailer. Hence the calculated value is greater than the table value null hypothesis is rejected. So, there is a significant relationship between the income level and schemes provided by the retailer.
2. Table 2 shows that chi-square has been taken for the gender and impulse purchase decision. Hence the calculated value is greater than the table value null hypothesis is rejected. So, there is a significant relationship between the gender and impulse purchase decision.
3. Table 3 shows that rank analysis has been taken for the factors which made them to purchase under market basket analysis.

### SUGGESTIONS

1. The concept of Market Basket Analysis was not familiar in most of the retail organizations. So, it should be properly intimated to the retail organizations to increase sales and profits.
2. The concept of Market Basket Analysis should be applied in order to identify the product associations and customer-purchasing patterns.
3. The concept of Market Basket Analysis should be applied in retail organizations, so that it would help the retailers in implementing effective sales promotional strategy.
4. Retailers should know the type of customers, when and at what time the products are bought, etc in order to attain more sales through MBA.

**CONCLUSION**

Progressive retailers see Market Basket Analysis (MBA) as a strategic tool that will help them increase their success and provide them with the edge that they need. By using market basket analysis, leading retailers are increasing their competitiveness by focusing directly on the consumer's buying habits, and then using that knowledge to quickly tailor their operations to the changing needs of their customers and trade areas. Additionally, leading retailers are beginning to equip buyers, merchandisers, planners, and store managers with powerful and convenient market basket analysis tools, improving success across the board

**REFERENCES**

1. Philip Kotler, "Principles of Marketing", Prentice Hall of India Pvt Ltd, New Delhi, 3<sup>rd</sup> Edition.
2. William J,Stanton, "Fundamentals of Marketing", McGraw hall International Book Company, 1984
3. C.B. Mamoria and R.L. Joshi, "Principles and Practice of Marketing in India", Kitab Mahal, 1984
4. [www.google.com](http://www.google.com)
5. [www.information-drivers.com/market\\_basket\\_analysis](http://www.information-drivers.com/market_basket_analysis)
6. [En.wikipedia.org/wiki/Market\\_Basket\\_Analysis](http://En.wikipedia.org/wiki/Market_Basket_Analysis)
7. [www.magazine.org/content/files/MarketBasket](http://www.magazine.org/content/files/MarketBasket)

## A STUDY OF VARIOUS SECTORS IN BLACK MONDAY AND GOLDEN MONDAY OF INDIAN STOCK MARKETS

BLACK MONDAY: 21.01.2008

GOLDEN MONDAY: 18.05.2009

**DR. N. SUNDARAM**  
**ASSOCIATE PROFESSOR**  
**SCHOOL OF SOCIAL SCIENCE**  
**VIT UNIVERSITY**  
**VELLORE – 632 014**

### ABSTRACT

*This study deals with the volatility of Indian Stock markets. Volatility is the other name of stock market. Every day brings with a new challenge for all the participants in the stock market, primarily for the brokers and investors – the duo who occupies driving seat of the market. Higher reward investments tend to carry greater risk and this is the rule of the game. 21st January 2008 – Black Monday and 18th May 2009 – Golden Monday are the two days which represent the true evidence of the two extreme sides of the stock market. Where the stock market plunge whip lashed many investors and left them wondering what to do about their portfolios, on the other side the revival and upswing in the market brought back the investors in a better position. Forming the above as a basis for a study, this report provides an in depth sectoral analysis of the stock market i.e. analyzing stocks of major companies within different major industrial and services sector. The analysis in the report provides input for the investors that would help them make intelligent investing decisions.*

### KEYWORDS

Sectors, Sectoral Indices, Stock prices, Black Monday, Golden Monday.

### INTRODUCTION

**T**his report on Study of various sectors on Black Monday and Golden Monday clearly shows how the various sectors (index) performed on Black Monday (January 2008) and Golden Monday (May 2009). It was a highly dramatic and scary day for markets as markets saw their biggest ever fall. It was the worst day of trading in Indian Stock trading history as the pace of the fall was unnerving. Black Monday made Dalal Street crowded by lot of brokers and investors. Golden day was something that the Indian market has never ever witnessed before; it was frozen up circuit as it opened. The first up circuit was 10% in the history of market and better still, when it opened. Two hours later it hit another circuit and trade was suspended for the day. The stock market had a massive rise on the Golden Monday.

### OBJECTIVES OF THE STUDY

- To find out the safest sector and its possibilities to be safe in any circumstances.
- Whether elections or any other controversies keep investors away from the market.
- To provide investor with profitable investing options during ups and downs in the market

### SCOPE OF THE STUDY

- The task being undertaken is to study the prices of various sectors i.e. Banking, Power, Infra, IT, Capital Goods, Pharmacy, Consumer Durables etc. from Black Monday to Golden Monday.
- Black Monday is the day when Indian market was crashed on January 2008 and Golden Monday is the day when Market hit an upper circuit after announcement of elections results that UPA is back to power. This kind of circumstances has possible occurrence in future also since the election results come once in five year.

### RESEARCH DESIGN

**DESCRIPTIVE DESIGN:** This study aimed at performed a detailed analysis of the indices of different industrial sectors. Hence the nature of the study is descriptive as it involves describing the nature of the capital market (secondary market to be more specific) and its ups and downs. Thus it describes the characteristics of the population (list of sectors in this case).

**INFORMATION SOURCES:** The study involved gathering data from secondary sources. The most important among the secondary data sources were:

- Internet and Miscellaneous reports and articles.

### SAMPLING DESIGN:

**SAMPLING TECHNIQUE:** The sampling technique used for this particular study was Judgmental sampling. The researcher chooses the sample based on who they think would be appropriate for the study. This is used primarily when there are a limited number of people that have expertise in the area being researched. It should only be used to take a few samples (making it less expensive) and can be made cost-effective with expert knowledge. It involves personal judgment is used to interpret data relative to study objectives which makes it useful for emergency situations that need immediate sampling.

**SAMPLE SIZE:** A total of eleven sectors were analyzed. Three companies each within every sector were taken into consideration.

### LIMITATIONS OF THE STUDY

The study however suffers from a limitation that not all the companies have been analyzed as it is limited to three companies per sector. Thus the study has a wide scope as it can be extended to analyze greater number of companies.

## ANALYSIS AND INTERPRETATIONS

### BLACK MONDAY

It was a highly dramatic and scary day for markets as markets saw their biggest ever fall. It was the worst day of trading in our trading history as the pace of the fall was unnerving. Markets started weak and with heavy bouts of selling were seen during the day with Sensex and Nifty down almost 12% at one point of time. Sensex went below 17,000 mark during the course of the day and Nifty sub 5000 mark. BSE was shut for a brief period of time however it resumed trading immediately. Later Sensex recovered 700 points from the day's low and finally Nifty closed down 8.5% and Sensex was down 7%.

It has not only been the pressure from global peers but on the domestic front also with increased unwinding pressure the fall has been accentuated. Even experts were a bit shaken and shocked with the nasty fall. According to Raamdeo Agarwal with global news not favorable there might be a further fall in the markets. He feels that Indian markets can't remain isolated when selling is seen in markets across globe including Asia.

Markets broke all the important technical and psychological levels. According to analyst the scenario was similar to the May 2006 fall. There is pressure due to triggering of margin call. Nifty Futures was trading at 100 points discount.

It was the biggest one-day fall in Indian share market and media reports termed the fall as bloodshed at Dalal Street never seen before. The Bombay Stock Exchange (BSE) Sensitive Index (Sensex) crashed by 2062 points on Monday and closed at 1408 points down from the opening points. According to estimates investors lost Rs 6, 69,375 crores on a single day, which was termed as **Black Monday** by market experts. Sensex saw the biggest fall in history by falling 2062 points in one day. It closed at 17,605.35, down 1408.35 points or 7.4 per cent. It fell down to 16,951.50 points. The Sensex has gone down 3200 points in next six trading days.

NTPC, down 15.07%, was the worst hit, followed by Reliance Energy (down 14.79%), ACC (14.53%), ACC (14.53%), Reliance Communications (13.84%), Grasim Industries (13.19%) and DLF (9.62%). Investors were panic state of mind for the whole day and confused about their next market move in share market. The experts were surprised after watching such downfall and speculating about the possible withdrawal of Foreign Institutional Investments (FII) from Indian stock market. The biggest question is that if the major share of FIIs goes out what would happen then. However, some other financial experts have said that from a retail perspective it was always good to buy in panic or rather than sell in panic. The overall index has gone down by 2-3% some stocks have gone down by 10-12%. There might be some value buying among the midcaps in different sectors. Retail investors can buy the shares of companies which were biggest gainers in the recent past. On Tuesday, equity shares tumbled at the opening session and pulled the benchmarks down over 10 per cent to break the lower circuit.

As a result, the trading was suspended for 1 hour to be opened at 10:55 am. According to norms, if the stock market witnesses a movement of 10 per cent on either side, the trading has to be suspended for an hour. However, after a sharp fall, market re-opened and the Sensex recovered 750 points from the day-low point. It happened for the fourth time in the history of Indian stock market that the trading was halted for one hour. The Sensex has lost 25 per cent since January 10, when it hit its peak of 21,206.77 points.

Analysts did mention earlier that the entire structure of the World Economy is changing and this change has brought about a high impact casualty. The US investment bank Lehman Brothers which survived many a downturn including the Great Depression Of 1929 has announced today that it had filed for bankruptcy. The going bust of Lehman is an indication of the US Sub Prime Crisis and the effect it has on the rest of the world including India. Our Sensex was hammered even before Lehman formally declared bankruptcy, simply anticipating the news of their bankruptcy.

The reason this particular event has led to such a reaction is because of the amount of panic selling it has managed to generate. In simple words it has been anticipated that the bankruptcy of Lehman is only the first in a long list of casualties which will at the end of the day prove the weakness of the American Banking and Financial System.

Some of the biggest firms in the world including AIG, Merrill Lynch and Washington Mutual face the prospect of significant financial losses, even more than what they have already incurred.

It is this reasoning that has managed to create the amount of hysteria we have seen in the world markets, Most of the Asian markets were closed. Those however which were open like the Sensex and the Nifty were beaten down almost mercilessly. Foreign firms were intent on selling their significant holdings in Indian companies.

**Table Showing the SENSEX on Prev. Week Friday and Black Monday and Tuesday**

Date	Open	High	Low	Close	Volume	Adj Close
1/22/2008	16884.09	17068.57	15332.42	16729.94	30600	16729.94
1/21/2008	18919.57	18919.57	16951.5	17605.35	35800	17605.35
1/18/2008	19579.61	19715.78	18930.42	19013.7	28000	19013.7

**Table showing NIFTY on Prev Week Friday, Black Monday and on Next Day (Tuesday)**

Date	Open	High	Low	Close	Volume	Adj Close
1/22/2008	5203.35	5203.35	4448.5	4899.3	0	4899.3
1/21/2008	5705	5705	4977.1	5208.8	0	5208.8
1/18/2008	5907.75	5908.75	5677	5705.3	0	5705.3

**GOLDEN MONDAY (18-MAY-2009)**

We have never seen anything like that before in our history and it's not very often that in the history of the stock market, we say such a thing that we have never seen it before. But that day was something that the Indian market has never ever witnessed before; it was frozen up circuit as it opened. The first up circuit was 10% in the history of our market and better still, when it opened. Two hours later it hit another circuit and trade was suspended for the day. So we traded for the sum-total of one minute today and that's about it and the rest is as they say is history. So this is a *Golden Monday*, the like of which we have never seen in our trading history.

#### On the Ferocious positive reaction on the election outcome:

It was mind-blowing; we haven't seen anything like this. The electoral outcome itself was a massive surprise and the market's reaction was surprising as well. People were debating over the weekend whether we will have one circuit or not, but within minutes of the SGX opening that was clear that we had it one circuit at least. But then to go 15% in the first burst and then to go 20% higher for the whole day is something, which might have taken people by surprise. The net result might have created some technical stresses in the system, which we can talk about, but this is absolutely fabulous. It just tells you how much people have been left out, how much people have been sitting on cash what the world thought of the verdict. In the near term, while there might be clearly euphoria, it has the danger of getting carried away. It's unequivocal that the market really has loved what it saw over the weekend.

Equities triggered final upper limit on Monday in response to Congress-led United Progressive Alliance's (UPA) unparalleled victory at the general elections. When the market halted for the day, the Sensex was at 14,272.63, up 2099.21 points or 17.24%. Similarly, the Nifty gained 636.4 points or 17.33% to 4308.05 at that time. The base for calculating the percentage rise was SENSEX and NIFTY closing figures of March-31st.

According to the new rules, if there is 10% movement of either Sensex or the Nifty, trading is halted for an hour market, if this happens before 1 pm. Post 1 pm but before 2.30 pm, there is halt for half-an-hour, while after 2.30 pm, trading does not halt at the 10% movement. If there is 15% movement in Sensex or the Nifty, trading will be halted for two hours if the movement happens before 1 pm. After 1 pm but before 2 pm, trading will be halted for one hour. Similarly, if there movement on or after 2 pm, there will be no trading for the rest of the day. Trading will be halted for the entire day, if there is a 20% movement of the indices.

The 30-share Sensex closed 2099.21 points higher at 14272.63 and the Nifty surged 636.40 points, to settle at 4,308.05.

Reliance Industries was up 20%. Sun Pharma, HDFC, ICICI Bank, L&T and DLF gained 19-20%. Tata Communication, Hero Honda, Unitech, Grasim, ABB, Reliance Petroleum, Suzlon Energy and Axis Bank surged 17-18.8%.

Reliance Capital, Ambuja Cements, Sterlite, Reliance Power, Bharti Airtel, SBI, HDFC Bank, Reliance Infrastructure, Reliance Communication, TCS, SAIL, Infosys and Power Grid Corp were up 15-16.8%.

BHEL, Siemens, ONGC, Tata Motors, Idea Cellular, Tata Steel, M&M, Ranbaxy Labs, NTPC and ACC shot up 10-14%.

**Table Showing the SENSEX on Prev. Week Friday and Golden Monday and Tuesday**

Date	Open	High	Low	Close	Volume	Adj Close
5/18/2009	13479.39	14284.21	13479.39	14284.21	800	14284.21
5/15/2009	11948.7	12218.98	11948.7	12173.42	35000	12173.42
5/14/2009	11774.04	11935.86	11695.52	11872.91	39000	11872.91

**Table showing NIFTY on Prev Week Friday, Golden Monday and on Next Day (Tuesday)**

Date	Open	High	Low	Close	Volume	Adj Close
5/19/2009	4324.95	4509.4	4167.65	4318.45	0	4318.45
5/18/2009	3673.15	4384.3	3673.15	4323.15	0	4323.15
5/15/2009	3597.85	3686.25	3597.85	3671.65	0	3671.65

**SCRIPS:** The companies entered in the following table are the listed high performing companies in respective sector. The sectors performance is majorly moved by these players in the market and thus the analysis considered these scripts.

INDEX	Stock 1	Stock 2	Stock 3
Auto Index	MARUTHI	HERO HONDA	M&M
BANKEX	SBI	HDFC	ICICI
Capital Goods Index	L&T	BHEL	SUZLON ENERGY
Consumer Durables	TITAN	BLUE STAR	VIDEOCON IND
FMCG Index	ITC	HIND UNI LT	NESTLE LTD
Healthcare Index	CIPLA	SUN PARMA	DR.REDDY LAB
IT Index	INFOSYS	TCS	WIPRO
Metal Index	TATA STEEL	STERLITE IN	JINDAL STEEL
Oil & Gas Index	RIL	ONGC	INDIAN OIL
Power Index	NTPC	TATA POWER	POWER GRID
Realty Index	DLF	UNITECH	INDBUL REAL

#### PERFORMANCE OF COMPANIES ON BLACK AND GOLDEN MONDAY

- The First column of the Table shows the various scrips taken for analysis according to their volumes, fundamentals and Market Capitalization.
- Second Column indicates the price of the stock on 18th January 2008 i.e. previous day before Black Monday.
- Third Column indicates the price of the stock on Black Monday i.e. 21st January 2008
- Fourth Column indicates the percentage between the previous day of trade and Black Monday

- Fifth Column indicates the price of the stock on 15th May 2009 i.e. previous day before Golden Monday
- Sixth Column indicates the price of the stock on Golden Monday i.e. 18th May 2009
- Seventh Column indicates the percentage between the previous day of trade and Golden Monday.
- Eighth Column indicates the percentage difference in the price of the scrip on Black Monday to Golden Monday.

**PERFORMANCE OF COMPANIES ON BLACK AND GOLDEN MONDAY**

	Prev Day	Black Monday		Prev Day	Golden Monday				
Name of the Scrip	18-Jan 2008	21-Jan 2008	% change Prev to BM	15-May 2009	18-May 2009	% change Prev to GM	% Change - B2G	+VE stocks	ALL TIME HIGH
<b>AUTO</b>									
MARUTI	842	803	-4.63	848	938	10.61	16.81	yes	
HERO HONDA	690	643	-6.81	1221	1487	21.79	131.26	yes	HIGH
M&M	727	667	-8.25	513	635	23.78	-4.80	NO	
<b>BANKE X</b>									
SBI	2362	2196	-7.03	1313	1576	20.03	-28.23	NO	
HDFC	1571	1507	-4.07	1184	1378	16.39	-8.56	NO	
ICICI	1248	1178	-5.61	574	707	23.17	-39.98	NO	
<b>Capital Goods Index</b>									
L&T	2039	1989	-2.45	989	1232	24.57	-38.06	NO	
BHEL	2304	2103	-8.72	1706	2014	18.05	-4.23	NO	
SUZLON	379	366	-3.43	76	93	22.37	-74.59	NO	

**PERFORMANCE OF COMPANIES ON BLACK AND GOLDEN MONDAY**

	Prev Day	Black Monday		Prev Day	Golden Monday				
Name of the Scrip	18-Jan 2008	21-Jan 2008	% change Prev to BM	15-May 2009	18-May 2009	% change Prev to GM	% Change - B2G	+VE stocks	ALL TIME HIGH
<b>Consumer Durables</b>									
TITAN	1394	1246	-10.62	884	945	6.90	-24.16	NO	
BLUE STAR	485	457	-5.77	207	249	20.29	-45.51	NO	
VIDEOCON IND	597	568	-4.86	113	132	16.81	-76.76	NO	
<b>FMCG Index</b>									
ITC	212	207	-2.36	186	209	12.37	0.97	yes	HIGH
HINDUNIL	213	199	-6.57	224	239	6.70	20.10	yes	HIGH

<b>Healthcare Index</b>									
CIPLA	202	190	-5.94	230	251	9.13	32.11	yes	HIGH
SUN PARMA	1088	1059	-2.67	1302	1592	22.27	50.33	yes	HIGH
DR.REDDY LAB	670	622	-7.16	573	612	6.81	-1.61	yes	HIGH

## PERFORMANCE OF COMPANIES ON BLACK AND GOLDEN MONDAY

	Prev Day	Black Monday		Prev Day	Golden Monday				
Name of the Scrip	18-Jan 2008	21-Jan 2008	% change Prev to BM	15-May 2009	18-May 2009	% change Prev to GM	% Change - B2G	+VE stocks	ALL TIME HIGH
<b>IT Index</b>									
INFOSYS	1468	1391	-5.25	1592	1800	13.07	29.40	yes	
TCS	903	831	-7.97	644	743	15.37	-10.59	NO	
WIPRO	454	439	-3.30	377	416	10.34	-5.24	NO	
<b>Metal Index</b>									
TATA STEEL	782	721	-7.80	272	318	16.91	-55.89	NO	
STERLITE IN	880	786	-10.68	460	551	19.78	-29.90	NO	
JINDAL STEEL	2873	2104	-26.77	1604	1945	21.26	-7.56	NO	
<b>Oil &amp; Gas Index</b>									
RIL	2799	2540	-9.25	1950	2367	21.38	-6.81	NO	
ONGC	1211	1116	-7.84	813	947	16.48	-15.14	NO	
INDIAN OIL	607	494	-18.62	428	501	17.06	1.42	yes	

## PERFORMANCE OF COMPANIES ON BLACK AND GOLDEN MONDAY

	Prev Day	Black Monday		Prev Day	Golden Monday				
Name of the Scrip	18-Jan 2008	21-Jan 2008	% change Prev to BM	15-May 2009	18-May 2009	% change Prev to GM	% Change - B2G	+VE stocks	ALL TIME HIGH
<b>Power Index</b>									
NTPC	239	205	-14.23	187	206	10.16	0.49	yes	
TATA POWER	1457	1239	-14.96	907	1044	15.10	-15.74	NO	
POWER GRID	133	110	-17.29	100	107	7.00	-2.73	NO	
<b>Realty Index</b>									
DLF	1005	901	-10.35	258	322	24.81	-64.26	NO	

UNITEC H	475	413	-13.05	50	64	28.00	-84.50	NO	
INDBUL REAL	657	616	-6.24	148	189	27.70	-69.32	NO	

## SECTORAL INDICES PERFORMANCE

Indices	Prev. Day	Black Monday	% change Prev to BM	Prev. Day	Golden Monday	% change Prev to GM	% Change - B2G
	(18-Jan-08)	(21-Jan-08)		(15-May-09)	(18-May-09)		
Auto	5147	4664	-9.38	3742	4162	11.22	-10.76
Bankex	11372	10582	-6.95	6375	7598	19.18	-28.20
Capital Goods	18333	17087	-6.80	8676	10576	21.90	-38.10
Consumer Durables	5844	5351	-8.44	2007	2273	13.25	-57.52
FMCG	2302	2173	-5.60	2054	2203	7.25	1.38
Health Care	4024	3701	-8.03	3161	3415	8.04	-7.73
IT	3790	3573	-5.73	2850	3175	11.40	-11.14
Metal	17258	14963	-13.30	7872	9140	16.11	-38.92
Oil & Gas	12594	11089	-11.95	8509	10135	19.11	-8.60
Power	4299	3828	-10.96	2216	2622	18.32	-31.50

## EXTERNAL FACTORS AFFECTING INDICES

**Political Instability:** This is the single most major reason for stock market crash. Investors especially FIIs never like political instability and they will book profits and go to another country. Even though political turmoil will have no significant impact on the growth of companies, stock markets always negatively respond to political instability.

**RBI decision:** Don't expect positive news from RBI. Don't be fooled by inflation data which is released on every Friday. You will know real inflation in the routine life. No government will allow raising inflation by cutting interest rate cut just before elections. RBI will definitely raise CRR and is major negative news for markets.

**Negative news:** When markets rose too high within a short span, single negative news will create havoc in stock markets. Markets discounted negative news like Crude rise, rupee appreciation, and inflation concerns in U.S after fed rate cut and slowdown in economic growth etc.

**Government policies:** If mid-term polls are inevitable, Government prefers people over companies. Popular policies will slow down momentum which will negatively impact investor's sentiment towards India.

**Foreign Investors (FIIs):** FIIs are major culprits for crash. They just do a basket selling in the Indices and sit quietly for the market to come down as they are aware of the Global scenario.

**Economic growth:** There is a slowdown in economic growth if you see the data but markets already discounted 2008-09 earnings especially for high growth sectors like power and capital goods.

**Profit booking:** Shrewd investor always book profits just before every crash whether it is in 2000 or 2008. Greedy investors always lose money in every crash.

**US markets:** US fed rate cut created euphoria among investors but this will actually show negative impact on the long term on credit crisis. It treated chronic disease in acute manner. Instead of curing root causes of credit concerns, it went in superficial manner which caused inflation pressure in America and severely impact economy.

**Inflation:** The overall general upward price movement of goods and services in an economy, usually as measured by the Wholesale Price Index in India. Over time, as the cost of goods and services increase, the value of a dollar is going to fall because a person won't be able to purchase as much with that dollar as he/she previously could.

## FINDINGS

The analysis over the various sectors has proved the performance and nature of those sectors and the following are the findings derived from the analysis. Findings are explained in sector wise,

**AUTO SECTOR:**

One of the best sectors which has outperformed is the auto sector. In spite of market crash and a small recovery, certain scrip's have touched all time highs. One of the scrip from auto sector is Hero Honda. Markets went up to 21000 pts and now trading at 15000 pts. But auto stocks are outperforming yet. Tata motors have not performed so well because of JLR deal but they are still competing with global economy. New Customers and Cost management to improve the growth of this sector.

**BANKING SECTOR:**

No doubt, one of the worst hit sectors is the banking sector. Banking stocks were available at 20% of the 52week high when the market touched the lows. Private sector banks were badly hit when compared with public sector. The market capital of ICICI bank was only RS 27,000 crs which was equal to last two FPO. With a good market capital in Bankex, HDFC Bank had also lost its charm due to Mr. Deepak Parekh's involvement in Satyam Board. It is still trading 40% below the all time highs.

**CAPITAL GOODS SECTOR:**

Capital goods sector is that sector where the stocks have also out performed and underperformed. Suzlon is still down about 70%. Whereas BHEL is only 5% down. And L&T was tumbled because of Satyam's scam. This is one of the good sector to invest because they having lot of pending orders in their portfolio. BHEL has the track record of paying dividends uninterruptedly for the last 33 years.

**FMCG SECTOR:**

One of the safest sectors to invest in stocks is the FMCG sector. Even though market went down, ITC was down only by 1%. The trend is visible on the bourses where leading FMCG counters have outperformed the overall market during the last few sessions. Take the case of MNC giant Hindustan Unilever (HUL). The company's stock has made its 52-week high at Rs.267 when Sensex, was trading under the 10,000-mark. Investors feel that items in this category include all consumables which people buy at regular intervals even though depression comes to people. The most common in the list are toilet soaps, detergents, shampoos, toothpaste, shaving products, shoe polish, packaged foodstuff, household accessories and extends to certain electronic goods. These items are meant for daily or frequent consumption and have a high return. A major portion of the monthly budget of each household is reserved for FMCG products. The volume of money circulated in the economy against FMCG products is very high.

**HEALTH CARE SECTOR:**

As like as FMCG sector PHARMA sector is also a safe hands to investors. Mostly all the stocks in HEALTH CARE went more than 10% during this period. SUN PHARMA having highest market capital in this sector went up by 50%. Followed by CIPLA went up by 32% during BLACK Monday to GOLDEN Monday.

**IT SECTOR:**

It was next to Banking sector in case of worstly hit. But it has recovered very well. Infosys has crossed about 29% from the price of Black Monday. But TCS and WIPRO are yet to march towards north. Infosys is also a zero debt company and has its own advantages. Earnings are also good when compared to another other IT companies. IT sector has also lost its charm due to the global impact on the economy. Majority of FORTUNE 500 companies belonged to US. Operations were outsourced, so Indian Companies benefitted. But more companies were shut down, so this was a disadvantage. Satyam's scam also had a sentimental effect on the IT industry as a whole.

**CONSUMER DURABLE SECTOR:**

This is one of the interesting sectors because if the salaries were doubled or any increments were given then consumer spending increased. But the slowdown in the economy reduced the consumer spending which has affected these companies in terms of sales. Durables have extra growth if housing infra develops. But realty sectors were the worst hit. Videocon industries were the worst hit scrip among the consumer durables.

**METAL SECTOR:**

On Black Monday, Metal sector had a huge blow as most of the stocks came down more than 10%. Tata Steel is volatile right from the day it has bought Corus. At one side if the earnings of the Corus were good then on the other side it had more debt. From the price of 700's it is now trading at 300's. But other companies have recovered when compared to Tata Steel. Jindal Steel is only down 8% down from the price of Black Monday but Tata Steel is down about 56%.

**OIL&GAS SECTOR:**

Most of the companies which have good Market Capitalizations belong to this sector. For example Reliance, ONGC etc. Movement of this sector has a good impact on the index i.e. Sensex and Nifty. These companies have higher weightage on Index. These companies had good time when the crude oil touched the high of \$144 per barrel. Because the rates of Petrol and Diesel were increased. But government gave them Subsidy only in Bonds with the maturity date of year 2016. So this was not profitable for them. Reliance which was trading at 2367 on Golden Monday is currently trading at 1800 because it has lost a case with RNRL a company of Anil Ambani. Indian Oil is 2% above the price of Black Monday and has showed a good growth.

**POWER SECTOR:**

Power sector had its own power to boost again and join the hands of upward growth. This sector was badly hit during the crash of market but recovered very slowly and gently without any hindrances. NTPC was a percent ahead on Golden Monday from the price of Black Monday. Power grid is only two percent below the price of Black Monday. From the graph it is clearly seen how the index has recovered.

**REALTY SECTOR:**

Realty sector saw the deepest dive in its stock price. Graph of this sector clearly shows how it dropped and not yet recovering. After a few months of market crash Infra stocks were available to Investors at only 10% of their all time high prices. It was a very good sector for investors at that time to invest or make an average for their portfolio. Still the stocks are available at 60-70 percent discount rate in the market. HDIL was the scrip which traded at about Rs.1000 came to a low of Rs.80 which was unimaginable by the investors.

**RECOMMENDATIONS**

After analysing 11 sectors it is found that PHARMA and FMCG are the most defensive sector to the investors to invest. In a recession sectors like Real Estate, Retail, Metal etc. take the most hit. They are very risky sectors when you know the outlook for the economy is not good. As opposed to this there are two main sectors which do fairly well even in ups and downs in economy. These two sectors are

- **Pharma:** Pharmaceutical companies - medicine making companies - are relatively insulated from sharp downturns, simply because of the logic that even if you don't get salary increments or are short of cash, they wouldn't stop buying medicine.
- **FMCG (Fast Moving Consumer Goods):** These are consumer goods which are required on a daily basis - for e.g. toothpaste, soap, oil, etc. These goods being daily necessities are relatively less affected in a recession when consumer sentiment is at very low.

**SUPPORTIVE REASONS**

- Between 2007-08 and 2011-12, the Indian domestic pharmaceutical market is expected to grow at a CAGR of nearly 16%.c
- The size of the domestic pharmaceutical market is larger than export market. However, owing to the growth of global generics market, stringent price controls in the domestic market, and better margins, the export market is growing much faster than the domestic market.
- Traditional branded generics presently dominate the Indian pharmaceutical market but the future will see strong growth in the specialty branded generics and patented drug segments.
- Drugs for diabetes and cardiovascular diseases are expected to see the fastest growth among all therapy areas during 2007-2011.
- The retail pharmaceutical market in India is presently highly unorganized; however, a vast opportunity exists for the organized market.
- Over the last few years, Cipla, Ranbaxy and GlaxoSmithKline are controlling the top three positions in the Indian pharmaceutical market.
- FMCG Stocks are now catching eye of investors for investing as best option in stock market. Analysts and market experts are now putting a 'buy stock' recommendation on select FMCG stocks.
- The trend is visible on the bourses where leading FMCG counters have outperformed the overall market during the last few sessions. Take the case of MNC giant Hindustan Unilever (HUL). The company's stock has made its 52-week high at Rs.267 on December 19, at a time when BSE's benchmark index, Sensex, was trading under the 10,000-mark.

Investor should not panic in the market. Instead remember the **three D's**:

- **First D: Shouldn't employ a defensive strategy**
- **Second D: Diversify**
- **Third D: Have Discipline.**

So the investor employing a defensive strategy could lead to make a mistake. Therefore

- Diversification is a tool designed to reduce risk. In the financial markets risk and reward go together. Higher reward investments tend to carry greater risk. Although all investors would like nothing better than a high reward investment that carries low risk, it is important to remember how rare that is. When one diversifies one's portfolio, it is to reduce risk. We do not diversify in order to maximize reward; rather we diversify in order to reduce risk and portfolio volatility.
- If one's portfolio is properly diversified, then one need not carry around a great deal of anxiety about the daily ups and downs of the market. With reduced volatility that proper diversification brings, one need not become either exultant in an up market or dejected in a down market. Instead one maintains a centered, approach to long term investing - not overreacting to market volatility.
- Asset allocation and diversification is best done by calendar rather than by reactivity to market conditions. One of the biggest traps for investors is to get excited and buy when markets are rising (thereby buying high) and to get scared and sell when markets are falling (thereby selling low). The best way to avoid this is to review one's asset allocation at a regularly scheduled account review.
- One of the best ways to build wealth is to take a longer time horizon to your investments. Sound investments, held over a long time horizon is the approach that we find works best. As Warren Buffet has said "in the short term the stock market is a voting machine, in the long term it is a weighing machine." In a short time horizon, emotions and group psychology rule the ups and downs of the markets. In the long term, the fundamental value of sound investments will rule the day.

## CONCLUSION

Volatility is never ending in part of stock exchange and also the predictability of the trend of market is not possible. Stock markets change does not depend only on the listed company's performances, external factors which are explained are also capable of changing capital markets upside down. So towards the end of being safe every investor must know the safest possibility of investment in any scrip. Though many risk takers are investing in stock markets, number of risk defenders is high in Indian Markets thus making them know the safest sector is always meaningful and that is what all investors are asking to the Brokers.

## REFERENCES

### BOOKS

- Carhart, M. M. (1997). The Performance of Stock market. Journal of Finance, 52, 57-82.
- Khan M Y (2000). Indian Financial System. Second Edition.

### WEBSITES

- Prakash P. and Dubey S., "Recent Trends in Indian and Global Capital Market", Retrieved on 21st May 2009, from [www.articlesbase.com](http://www.articlesbase.com)
- Ghosh C., "Indian Capital Market", Retrieved on 21st May 2009, from [www.articlesbase.com](http://www.articlesbase.com)
- Preet S., "An Assessment of the Mobilization of the Household Savings and Corporate Investments", Retrieved on 18th July 2009, from [www.emeraldinsight.com](http://www.emeraldinsight.com)
- Hathway R., "Present Indian Stock Market Scenario", Retrieved on 18th July 2009, from [www.emeraldinsight.com](http://www.emeraldinsight.com)
- <http://www.nseindia.com/>
- <http://www.bseindia.com/>
- <http://www.moneycontrol.com/>
- <http://www.indiabulls.com/>
- <http://www.investopedia.com>
- <http://www.economicstimes.com/>
- <http://www.iloveindia.com/finance/index.html>
- <http://www.economywatch.com/indianeconomy/india-inflation.html>

## A COMPARATIVE STUDY ON CONSUMERS' ATTITUDE TOWARDS PRIVATE LABELS: A SPECIAL FOCUS IN SURAT

**DR. AMIT R. PANDYA**

READER

FACULTY OF COMMERCE INCLUDING BUSINESS ADMINISTRATION

THE MAHARAJA SAYAJIRAO UNIVERSITY OF BARODA

VADODARA – 390 002

**MONARCH A. JOSHI**

ASST. PROFESSOR

INDU MANAGEMENT INSTITUTE

VADODARA

### ABSTRACT

*Retail, one of India's upcoming industries, has presently emerged as the most dynamic and fast paced industries of recent times with several players entering the market. One of the routes to succeed in retail business is to focus on own brands / store brands / private label brands (PLs) ; as the financials of retail firms are very sensitive to margins on the brands they sell. Further, PLs also offer retailers greater control over the supply chain, negotiating margins with National Brand (NBs) manufacturers or companies; opportunity to launch customized products; opportunity to launch innovative products, hence to build platform for store loyalty and increase footfalls. As managing PLs is quite critical function, hence they are to be managed professionally. This paper focuses on, determining & comparing customers' attitude towards NBs & PLs with respect different attributes. Further it also discusses the effect on preference pattern with respect to demographic profile of respondents for private label brands in different categories of products.*

### KEYWORDS

Multi Attribute Model, Private Label Brands, Retail Marketing, Store Brands.

### INTRODUCTION

 Global retail sales crossed US\$12 trillion in 2007. Almost reflecting the growth in the world economy, global retail sales grew strongly in the last five years (2002-07) at an average nominal growth of about 8 per cent per annum in dollar terms.<sup>6</sup> In the developed economies, organized retail is in the range of 75-80 per cent of total retail, whereas in developing economies, the unorganized sector dominates the retail business. The share of organized retail varies widely from just one per cent in Pakistan and 4 per cent in India to 36 per cent in Brazil and 55 per cent in Malaysia.

The Indian retail market, which is the fifth largest retail destination globally, has been ranked the second most attractive emerging market for investment after Vietnam in the retail sector.<sup>7</sup> Therefore, manufacturers must capitalize on this ever-escalating trend so that youths can spend their purchasing power in a healthy way, contributing towards the overall development of the country. It is currently (2009) estimated at around US \$ 450 billion, is expected to touch US \$ 720 billion by 2011, US \$ 833 by 2013 and to US \$ 1.3 Trillion by 2018. The organized retail sector currently estimated at \$ 63 billion (14 per cent of the total) will, however, grow much faster at 40 per cent to reach \$ 90 billion during this period. The overall Indian retail market is growing at 30 per cent; the annual rate of growth for the organized sector is going to be at around 40 per cent. The organized retail market is growing at the rate of 40 per cent and is anticipated to grow at a faster pace over the next three years, especially in view of the fact that major global players and Indian corporate houses are entering the fray in a big way. At the current growth rate it is expected to touch \$90 billion by 2010. In 2009 retail sector accounts for 12 per cent of the country's GDP and is likely to reach 22 per cent by 2010 & employs around 9 per cent of its workforce is well on its way to become a boom sector of the economy.<sup>8</sup> The Indian organized retail sector accounts for only 5% in the country.<sup>9</sup> And it is expected to contribute 15.5 per cent by 2016.<sup>10</sup>

Research on store brands or PLs has been of substantial interest to the retailers as well as academicians. Research in this area was conducted by few researchers, viz. The factors associated with PLs adoption, the consumer attitude towards store brands and its relationship with customer satisfaction and store loyalty.

Private Labels are defined as the "products owned and branded by the organizations whose primary objective is distribution rather than production"<sup>11</sup> Store brands or private label brands are also defined as " brands owned, controlled and sold exclusively by retailer".<sup>12</sup> PLMA defines it as "Private label products encompass all merchandise sold under a retailer's brand. That brand can be the retailer's own name or a name created exclusively by that retailer. In some cases, a retailer may belong to a wholesale group that owns the brands that are available only to the members of the group."<sup>13</sup>

<sup>6</sup> Planet Retail Database

<sup>7</sup> AT Kearney's 7<sup>th</sup> annual GRDI, in 2008.

<sup>8</sup> Indian Retail Research 2009 Edition Northbridge Capital

<sup>9</sup> FICCI Eames & Young

<sup>10</sup> Investment Commission of India

<sup>11</sup> Schutte, 1969

<sup>12</sup> Baltas, 1997

<sup>13</sup> Private Label Manufacturers' Association

The above definitions suggest two things. First, it is the retailer who owns and controls the brand, whereas this was traditionally the role of the producer. Second, the retailer has exclusive rights over the product. This means that different retailers do not sell identical PLs, which is not the case when retailers sell name-brands. Thus, the development of PLs does not only alter the relationship between producers and retailers, but also affects competition between retailers because PLs become an additional way of differentiating between retailers.<sup>14</sup> The two main advantages derived from the adoption of PLs by retailers are: bigger margins, and increased store loyalty.<sup>15</sup>

In order to be truly successful, retailers must advance from the generic or store brand mindset of the past to a new private label paradigm. Many retailers have begun to describe their private label brands as "own" brands because there is recognition that these proprietary, exclusive offerings are tools that represent momentous power and potential for the retail store. Sales of PLs, also called "store brands," have been growing rapidly in recent years.<sup>16</sup>

Retailers like PLs because of their potential to increase store loyalty, chain profitability, control over shelf space, bargaining power over manufacturers, and so forth.<sup>17</sup> Among consumers, one obvious reason for their popularity and growth is their price advantage (averaging 21% over national brands).<sup>18</sup> Nevertheless, high quality seems to be more important in determining PLB success than lower price.<sup>19</sup> PLs are articulated and developed in a way that they not only fit with the brand promise of the retail store, but if effective, they also give consumer a key point of departure to enhance and celebrate the overall retail brand proposition to keep consumers coming back for more. One of the interesting phenomena concerning PLBs is the fact that their growth has been highly uneven across product categories.<sup>20</sup>

The present study has been undertaken to gain an insight into Indian customers' attitude towards private label brands as well as national brands, the effect on preference pattern & variations with respect to demographic profile of respondents for private label brands versus national label brands across two product categories. For this purpose respondents from Surat city were studied.

## LITERATURE REVIEW

In studying the retailer economics of PLs programs, researchers have mostly examined factors such as the technology, investments necessary, size of category, category margins, national brand advertising and promotional activity levels and so forth (Hoch and Banerji, 1993; Sethuraman, 1992). Thus, Hoch and Banerji (1993) find that PLs have higher shares in large categories offering high margins, and where they compete against fewer national manufacturers who spend less on national advertising. The gap between NBs and PLs in the level of quality also depends on the technology requirements in manufacturing that varies across categories Hoch and Banerji, 1993). Some researchers studying consumer-level factors for PL proneness--such as Richardson, Jain and Dick (1996)--have not studied cross category variations. They have chosen instead to aggregate data across categories. Sethuraman and Cole (1997), for instance, did not measure and model the crucial effect of the level of perceived risk in the product category (Richardson, Jain, and Dick, 1996; Narasimhan and Wilcox, 1998).

In this research, we focus upon these consumer-level perceptions of inter category differences. By doing so, we hope to shed light on what has made PLs successful overall, drawing implications both for retailers marketing PLs as well as the national brands that compete with them.

Any examination of the consumer-level factors that moderate PLs success across product categories should start with a framework to explain consumer's susceptibility to buying PLBs.

Richardson, Jain, and Dick (1996) present what is probably the most extensive such framework offered to date. They argue that consumers' propensity to purchase PLs depends on (a) certain demographic factors, such as income, family size, age and education, (b) certain individual difference variables, such as the degree of reliance by the consumer on extrinsic cues (those more reliant on such cues preferring national brands) and the consumers' tolerance of ambiguity (intolerant preferring safer national buys), and (c) certain consumer perceptions of the particular category (degree of perceived quality variation, level of perceived risk, and perceived value for money), as well as the degree of consumer knowledge about the category (greater knowledge increasing PLs choice). Note that though several of these perceptual factors ought to vary across categories (such as the degree of perceived quality variation, level of perceived risk, perceived value for money, and degree of consumer knowledge), Richardson, Jain and Dick did not study category-level variations in these factors.

Researchers have examined differences of quality perceptions for national and private label brands. Initial study done by Bellizzi et al. (1981) gathered perceptions of national, private label and generic brands through a series of Likert-type scales. Respondents showed significant perceptual differences for the three types of brands and consistently rated private label brands below the national brands on attributes related to quality, appearance, and attractiveness. Similarly, Cunningham et al. (1982) observed that consumers rate national brands as superior to private label and generic brands in terms of taste, appearance, labeling, and variety of choice. Rosen (1984) conducted a telephone survey of 195 households and obtained ratings for generic, private label, and national brand grocery products on three quality perceptions: overall quality, quality consistency over repeat purchases, and quality similarity across stores. Data gathered across nine product categories showed that private label brands had lower scores in comparison to national brands for overall quality as well as quality consistency over repeat purchases. Omar (1994) conducted similar test of quality for private label and national brands across three product categories. The results showed that consumers did not perceive any difference among the brands during a blind taste test but revealed taste test indicated that shoppers assigned superior ratings to national brands. Thus, private label offers were rated much lower in revealed taste test than in blind taste test.

Invariably, all these studies indicated that private label brands suffer from low quality image when compared with national brands despite improvements made in the quality. This spawned efforts by academicians and practitioners to examine the ways to improve the quality perceptions of private label brands.

Sethuraman and Cole (1997) did model category level variations in many factors. They examined the effect on "willingness to pay a price premium for a national brand" of (a) several category level variables, including the quality perception of PLs, average price, purchase frequency, and the degree to which the category gives "consumption pleasure," (b) individual demographics such as income, age, family size, gender and education, and (c) individual difference perceptual variables such as the belief of a price-quality relationship, perceived deal frequency, and

<sup>14</sup> Berges-Sennou, Bontems, and Requillart 2004

<sup>15</sup> Fontenelle 1996

<sup>16</sup> Batra & Sinha, 2000

<sup>17</sup> Richardson, Jain, and Dick, 1996

<sup>18</sup> Batra and Sinha, 2000

<sup>19</sup> Hoch and Banerji, 1993; Sethuraman, 1992

<sup>20</sup> Hoch and Banerji, 1993

familiarity with PLs. However, as noted above, their list of category-level variables did not include crucial perceptions of the degree of category perceived risk. Price Consciousness, defined as the "degree to which the consumer focuses exclusively on paying low prices" (Lichtenstein, Ridgway, and Netemeyer, 1993, p. 235), has been found to be a predictor of PLs purchase (Burger and Schott, 1972; Rothe and Lamont, 1973). Previous research has shown that a consumer's level of price-consciousness rises with lower incomes (Gabor and Granger, 1979; Lumpkin, Hawes, and Darden, 1986), and is higher among deal-prone consumers (Babakus, Tat, and Cunningham, 1988) who believe less in price-quality associations (Lichtenstein, Bloch, and Black, 1988).

Research has for long talked of the level of perceived risk in the category as being a crucial factor in PLs purchases (Bettman, 1974; Richardson, Jain, and Dick, 1996), though this variable has either not been studied at the individual category level (e.g., by Richardson, Jain, and Dick, 1996), or has been omitted in some recent category-level studies (e.g., Sethuraman and Cole 1997). Such perceived risk can be gauged using performance, financial, or social criteria (Dunn, Murphy, and Skelly, 1986). Drawing on the literature on perceived risk (e.g., Bauer, 1967; Cox, 1967), Narasimhan and Wilcox (1998) argue that consumers will prefer national brands to PLs if the level of perceived risk in buying the PLs in that category is seen as high. They also state that the degree of perceived risk increases with the degree of perceived quality variation. Moreover determinants of risk according to Narasimhan and Wilcox (1998), Dunn, Murphy, and Skelly (1986), and others, is the "degree of inconvenience of making a mistake."

Consumers rated national brands higher than PLBs and generics on prestige, reliability, quality, attractive packaging, taste, aroma, color, texture, appealing, tempting, purity, freshness, uniformity, familiarity, confidence in use, among others, Bellizi et al. (1981).

Thus, a review of previous studies undertaken in the area of PLBs indicates that, research has been more limited on the consumer-level factors that make PLBs differentially successful across product categories. Also the effect of demographic variables on customer perception and preference for private label brands across different product categories has hardly been researched. Given the lack of studies undertaken in the area of understanding Indian customers' attitude and perception towards private label brands across product categories and the effect of demographic variables on this perception, the present study has been undertaken to gain an insight into how customers in India, perceive and evaluate private label brands in comparison to national label brands. The findings of the study will be helpful for retailers to understand the importance of various factors in being successful with customers in the private label brands category.

## RESEARCH OBJECTIVES

1. To study & find out attributes on which consumers evaluate both Private Labels (PLs) & National Brands (NBs).
2. Find & compare the overall customers' attitude towards private label versus national brands across different attributes, categories.
3. To see the effect on consumers attitude towards private label brands with respect to different demographic variables.

## RESEARCH DESIGN & METHODOLOGY

Demographic factors were identified from various past studies in the similar areas: Richardson, Jain, and Dick (1996). While different attributes viz. Image (Brand Image / Stores' Image), Quality, Price, Risk, Packaging have been identified to assess the consumer evaluations of PLs & NBs were identified from the past studies. Dolekoglu et al. (2008) stated factors viz. quality, price, trust, availability of alternatives, attractive packaging, frequent advertising, sales promotions, imitations, well-known, healthy, availability, brand image, prestige, freshness and habits. Wells, Farley, Armstrong (2007) stated factor viz. Packaging. Batra & Sinha (2000); Bettman, 1973; Dunn et al., (1986); Richardson, Jain, & Dick (1996) stated Perceived Risk as factor. Batra and Sinha 2000 stated Price Consciousness, Price-Quality association as factors influencing customers' attitude. Ashokkumar and Gopal (2009) studied Price, Quality, Risk perception as factors affecting consumers' attitude; While relationship between Price and Quality was studied by Ailawadi, Pauwels and Steenkamp (2008).

Tool employed for generating responses was structured questionnaire, consisting of 30 Questions out of which 9 Questions were framed to gather demographic as well as personal profile of respondent, while 1 Question was framed to rate individual brand attribute on Likert Scale, 20 Questions were framed to rate & compare different attributes across 2 different categories viz. Consumer Durables & Personal Care Products on Likert Scale. SPSS 17 was used for data analysis. Research was conducted in Surat. 100 respondents were studied. Stratified random sampling method (disproportionate method) was used to collect primary data. Information was collected from respondents outside different retail outlets in different parts of Surat city.

For data analysis "Adequacy Importance" model is used, in which 5 attributes identified was framed in model and importance was measured on scale of 1 = Least Significant to 7 = Most Significant across different product categories. "Adequacy Importance" model happens to be one of the most widely used models appearing in consumer behavior research (Fishbein, Cohen & Ahtola (1972).

Model can be described as:

$$A = \sum P * D$$

Where

*A* = an individual's attitude toward the brands;

*P* = importance of attribute (dimension) for the person;

*D* = individual's evaluation of brands w.r.t the corresponding attribute (dimension).

Further attitude was obtained on scale of 1 to 7 as 1 = extremely negative attitude, 2 = moderately negative attitude, 3 = slightly negative attitude, 4 = neither negative nor positive attitude, 5 = slightly positive attitude, 6 = moderately positive attitude & 7 = extremely positive attitude.

List of abbreviations used in analysis table are as follows:

Q	P	R	PC	BI	N	P	CD	PC
Quality	Price	Risk	Packaging	Image	National Brand	Private Label	Consumer Durable	Personal Care Product

## ANALYSIS & RESULT

Data reliability and validity plays most significant role in any research, before data analysis and interpretation. The present study had adopted internal consistency analysis to conduct reliability testing. Cronbach's  $\alpha$  came out to be 0.895, which indicates that reliability of the scale of measurement was significantly high.

Gender		
Gender	Male	64
	Female	36
Age Group (Years)	18 to 30	86
	31 to 40	10
	41 to 50	4
	51 to 60	0
Monthly Household Income (Rupees)	Up to. 20,000	52
	21,000 to 40,000	32
	41,000 to 60,000	8
	61,000 to 80,000	8
	81,000 to 100,000	0
Type of Family	Nuclear	44
	Joint	56
Occupation	Student	54
	Housewife	2
	Services	24
	Self Employed / Business	10
	Professional (Dr, CA, Lawyer, Consultant)	10
Marital Status	Unmarried	78
	Married	22

From in-depth literature review we find Quality, Price, Risk, Packaging & Brand Image as attributes which are most relevant to study categories viz. Personal Care Products & Consumer Durables.

#### A. MEASURING & COMPARING ATTITUDE TOWARDS NBs & PLs.

Importance of attitude towards NBs & PLs was calculated for 100 respondents from the formula of "Adequacy-Importance" with respect to different attributes across 2 categories as mentioned in Table 2. Further for comparison t- test for equality of means was carried out.

**Table 2: Comparative analysis of attitudes towards NBs vs. PLs across different categories.**

Categories	Brand Attributes	Attitude towards NBs		Attitude towards PLs		t-test for equality of means; Df: 99	Sig. (2 -Tailed)
		Mean	Std. Dev.	Mean	Std. Dev.		
<b>N = 100</b>							
<b>Consumer Durables</b>	<b>Quality</b>	6.32	0.973	6.26	1.001	0.884	.379
	<b>Price</b>	5.02	0.887	5.42	1.191	-5.519	.000*
	<b>Risk</b>	5.12	1.472	4.76	0.996	5.014	.000*
	<b>Packaging</b>	4.80	1.378	4.84	1.308	-1.157	.250
<b>Personal Care Product</b>	<b>Image</b>	5.66	1.037	5.60	1.119	1.029	.306
	<b>Quality</b>	6.34	0.943	6.20	0.964	2.320	.022*
	<b>Price</b>	5.80	0.918	5.40	1.137	-4.342	.000*
	<b>Risk</b>	5.44	1.477	4.70	0.927	5.622	.000*
	<b>Packaging</b>	4.86	1.349	4.84	1.245	0.632	.530
	<b>Image</b>	5.72	1.064	5.48	1.010	4.662	.000*

Asterisk (\*) denotes that the difference in means is statistically significant at 5% significance level

Analysis of consumer's attitudes towards NBs vs. PLs shows that there was perceived difference on the attributes of price and risk in consumer durable products while perceived differences were observed for attributes like quality, price, risk & image for personal care products (as difference in means are statistically significant at 5% significance level). However, there was no perceived difference on the attributes of quality, packaging & image for consumer durable products; and only packaging of personal care products (as means are significant at 5% significance level). Further, means of NBs & PLs can be compared and interpreted from above table as follows:

- NB > PL: NBs perceived to be better than PLs :
  - Quality & Risk for consumer durables
  - Quality, Price, Risk & Image for personal care product.
- NB < PL: PLs perceived to be better than NBs :
  - Price for consumer durables.
- NBs = PLs: NBs & PLs perceived to be same :
  - Packaging & Image for Consumer Durables.
  - Packaging for Personal Care Products.

Results of above study are similar to the results obtained in other retail markets. Perception of quality is an important element relating to private-label brand use; if all brands in a category are seen as sharing a similar quality, then private-label brand use is often observed to increase (Richardson *et al.*1994). But as proven in this study and other global studies, one constant finding of private-label research had been that quality is more important than price to shoppers (Hoch and Banerji 1993; Sethuraman 1992). Support for this belief was challenged, however, by Ailawadi *et al.*(2001). Burton *et al.* (1998) pointed out that the danger for a retailer using low prices alone with which to compete is that some consumers may use price as a proxy for quality. Richardson *et al.*(1994) found that private-label brands were considered by shoppers to be inferior in quality terms to national brands. With parameters such as quality and price in play, the question of risk becomes particularly relevant. Batra and Sinha (2000) noted that when the consequences of a purchase mistake are high or quality variability is considerable, then interest in private label groceries is likely to drop. Narasimhan and Wilcox (1998) argue that consumers will be less motivated to purchase private-label groceries if the level of perceived risk in that category is high. The search-versus-experience nature of the product is also important, in that if the product requires actual trial (such as taste), then interest in private label brands drops (Erdem & Swait 1998). Still, Burton *et al.* (1998) found that grocery shoppers being risk averse did not significantly impact on their attitude towards a private-label brand (Shannon and Mandhachitara 2005).

#### B. DEMOGRAPHIC EFFECT ON CONSUMER'S ATTITUDE TOWARDS PRIVATE LABEL:

One way ANOVA was administered to find the significance; demographic parameters were taken as factors / independent variable while corresponding response with respect to attributes & product category was taken as dependent variable. Only significant results (significance at 5%) across different demographic parameters, attributes as well as product categories are tabulated & discussed as follows:

##### 1. Effect of Gender on attitude towards Private Label Brands

As per table 3a we find that gender have significant effect on attitude towards private label brands, for risk across personal care products & for packaging across consumer durables & personal care products.

As can be seen from table 3b that female have slightly positive attitude towards risk & packaging across personal care product as well as consumer durable & personal care product categories.

**Table 3a: Effect of Gender on attitude towards Private Label Brands (ANOVA)**

		Sum of Squares	df	Mean Square	F	Sig.
R_P_PC	Between Groups	3.361	1	3.361	4.035	.047
	Within Groups	81.639	98	.833		
	Total	85.000	99			
PC_P_CD	Between Groups	10.780	1	10.780	6.659	.011
	Within Groups	158.660	98	1.619		
	Total	169.440	99			
PC_P_PC	Between Groups	10.780	1	10.780	7.406	.008
	Within Groups	142.660	98	1.456		
	Total	153.440	99			

**Table 3b: Effect of Gender on attitude towards Private Label Brands (Descriptive)**

		N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
R_P_PC	Male	64	4.56	.794	.099	3	6
	Female	36	4.94	1.094	.182	3	7
	Total	100	4.70	.927	.093	3	7
PC_P_CD	Male	64	4.59	1.400	.175	1	7
	Female	36	5.28	1.003	.167	3	7
	Total	100	4.84	1.308	.131	1	7
PC_P_PC	Male	64	4.59	1.306	.163	2	7
	Female	36	5.28	1.003	.167	3	7
	Total	100	4.84	1.245	.124	2	7

##### 2. EFFECT OF AGE GROUP ON ATTITUDE TOWARDS PRIVATE LABEL BRANDS

We noticed that attitude towards private label brands is not affected by marital status of respondent.

##### 3. EFFECT OF MONTHLY HOUSEHOLD INCOME ON ATTITUDE TOWARDS PRIVATE LABEL BRANDS

From table 4a, monthly household income have significant effect on attitude towards quality of consumer durable & personal care products, price of personal care products & brand image of consumer durable private label brands.

Interpreting table 4b, shows that respondents whose monthly household income is Rs. 61,000 to 80,000 have extremely positive attitude with respect to quality & image of consumer durable & personal care products respectively; while same income group has moderately positive attitude with respect to price towards consumer durables.

Attitude is almost same i.e. slightly positive for personal care products across all income groups.

Further respondents in income group of Rs. 21,000 to 40,000 have extremely positive attitude towards consumer durables with respect to price as attribute.

**Table 4a : Effect of Monthly Household Income on attitude towards Private Label Brands (ANOVA)**

		Sum of Squares	df	Mean Square	F	Sig.
Q_P_CD	Between Groups	9.634	3	3.211	3.441	.020
	Within Groups	89.606	96	.933		
	Total	99.240	99			
Q_P_PC	Between Groups	15.856	3	5.285	6.663	.000
	Within Groups	76.144	96	.793		
	Total	92.000	99			
P_P_PC	Between Groups	12.433	3	4.144	3.443	.020
	Within Groups	115.567	96	1.204		
	Total	128.000	99			
BI_P_CD	Between Groups	9.231	3	3.077	2.574	.058
	Within Groups	114.769	96	1.196		
	Total	124.000	99			
BI_P_PC	Between Groups	10.854	3	3.618	3.855	.012
	Within Groups	90.106	96	.939		
	Total	100.960	99			

**Table 4b : Effect of Monthly Household Income on attitude towards Private Label Brands (Descriptive)**

		N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
Q_P_CD	Up to 20K	52	6.27	.910	.126	4	7
	21K to 40K	32	6.44	.619	.109	5	7
	41K to 60K	8	5.25	2.053	.726	2	7
	61K to 80K	8	6.50	.926	.327	5	7
	Total	100	6.26	1.001	.100	2	7
Q_P_PC	Up to 20K	52	6.15	.777	.108	4	7
	21K to 40K	32	6.56	.619	.109	5	7
	41K to 60K	8	5.00	2.000	.707	2	7
	61K to 80K	8	6.25	.886	.313	5	7
	Total	100	6.20	.964	.096	2	7
P_P_PC	Up to 20K	52	5.42	1.091	.151	3	7
	21K to 40K	32	5.56	1.076	.190	3	7
	41K to 60K	8	4.25	1.581	.559	2	6
	61K to 80K	8	5.75	.463	.164	5	6
	Total	100	5.40	1.137	.114	2	7
BI_P_CD	Up to 20K	52	5.35	1.186	.165	2	7
	21K to 40K	32	5.88	.942	.166	4	7
	41K to 60K	8	5.50	1.195	.423	4	7
	61K to 80K	8	6.25	.886	.313	5	7
	Total	100	5.60	1.119	.112	2	7
BI_P_PC	Up to 20K	52	5.27	1.105	.153	2	7
	21K to 40K	32	5.56	.716	.127	4	7
	41K to 60K	8	5.50	1.195	.423	4	7
	61K to 80K	8	6.50	.535	.189	6	7
	Total	100	5.48	1.010	.101	2	7

**4. EFFECT OF TYPE OF FAMILY ON ATTITUDE TOWARDS PRIVATE LABEL BRANDS**

As can be seen from table 5a & 5b, type of family has significant effect towards attitude for private label brands. Further respondents from both nuclear & joint family have moderately positive attitude towards private label brands with respect to only risk as an attribute for both product categories.

**Table 5a : Effect of Type of Family on attitude towards Private Label Brands (ANOVA)**

		Sum of Squares	df	Mean Square	F	Sig.
R_P_CD	Between Groups	4.526	1	4.526	4.733	.032
	Within Groups	93.714	98	.956		
	Total	98.240	99			
R_P_PC	Between Groups	9.377	1	9.377	12.151	.001
	Within Groups	75.623	98	.772		
	Total	85.000	99			

**Table 5b: Effect of Type of Family on attitude towards Private Label Brands (Descriptive)**

	N	Mean	Std. Deviation	Std. Error	Minimum	Maximum	
R_P_CD Nuclear	44	5.00	.807	.122	3	7	
	Joint	56	4.57	1.093	.146	3	7
	Total	100	4.76	.996	.100	3	7
R_P_PC Nuclear	44	5.05	.834	.126	3	7	
	Joint	56	4.43	.912	.122	3	6
	Total	100	4.70	.927	.093	3	7

**5. EFFECT OF OCCUPATION ON ATTITUDE TOWARDS PRIVATE LABEL BRANDS**

From table 6a & 6b, attitude towards private label is affected by respondent's occupation, for the quality in consumer durables, price in personal care products & brand image for both product categories.

Students have moderately positive attitude with respect to quality of consumer durables. While housewives show the maximum propensity towards private label brands with respect to price of personal care products. Moreover, moderately positive attitude is also observed amongst housewives & self employed towards brand image of private label consumer durable & personal care product in Surat.

**Table 6a : Effect of Occupation on attitude towards Private Label Brands (ANOVA)**

		Sum of Squares	df	Mean Square	F	Sig.
Q_P_CD	Between Groups	23.403	4	5.851	7.329	.000
	Within Groups	75.837	95	.798		
	Total	99.240	99			
P_P_PC	Between Groups	11.352	4	2.838	2.311	.063
	Within Groups	116.648	95	1.228		
	Total	128.000	99			
BI_P_CD	Between Groups	22.533	4	5.633	5.274	.001
	Within Groups	101.467	95	1.068		
	Total	124.000	99			
BI_P_PC	Between Groups	23.067	4	5.767	7.033	.000
	Within Groups	77.893	95	.820		
	Total	100.960	99			

**Table 6b : Effect of Occupation on attitude towards Private Label Brands (Descriptive)**

	N	Mean	Std. Deviation	Std. Error	Minimum	Maximum
Q_P_CD Students	54	6.59	.687	.094	5	7
Housewife	2	5.00	.000	.000	5	5
Service	24	5.50	1.351	.276	2	7
Self Employed / Business	10	6.40	.843	.267	5	7
Professional	10	6.40	.516	.163	6	7

Total	100	6.26	1.001	.100	2	7
P_P_PC Students	54	5.15	.979	.133	3	7
Housewife	2	7.00	.000	.000	7	7
Service	24	5.58	1.586	.324	2	7
Self Employed / Business	10	5.80	.422	.133	5	6
Professional	10	5.60	.843	.267	5	7
Total	100	5.40	1.137	.114	2	7
BI_P_CD Students	54	5.78	.965	.131	4	7
Housewife	2	6.00	.000	.000	6	6
Service	24	4.83	1.239	.253	2	7
Self Employed / Business	10	6.40	.843	.267	5	7
Professional	10	5.60	1.075	.340	4	7
Total	100	5.60	1.119	.112	2	7
BI_P_PC Students	54	5.63	.831	.113	4	7
Housewife	2	6.00	.000	.000	6	6
Service	24	4.75	1.113	.227	2	6
Self Employed / Business	10	6.40	.516	.163	6	7
Professional	10	5.40	1.075	.340	4	7
Total	100	5.48	1.010	.101	2	7

#### 6. EFFECT OF MARITAL STATUS ON ATTITUDE TOWARDS PRIVATE LABEL BRANDS

We noticed that attitude towards private label brands is not affected by marital status of respondent.

#### CONCLUSION & IMPLICATIONS

In this study, we examined how customers' in Surat perceive private label brands in two product categories in comparison to national label brands with respect to 5 attributes. In attempt to explain variations in customer attitude towards private label brands, the effect of gender, age group, and monthly household income, type of family, occupation & marital status has been taken into consideration.

Perception of quality is an important element relating to private-label brand use; if all brands in a category are seen as sharing a similar quality, then private-label brand use is often observed to increase (Richardson *et al.*1994). But as proven in this study and other global studies, one constant finding of private-label research had been that quality is more important than price to shoppers (Hoch and Banerji 1993; Sethuraman 1992).

The findings of the study clearly bring forth the importance of pricing as an attribute in influencing customers' acceptance of private label brands. This is so because today's customers are smart enough to understand that since they are not buying branded products so they need not pay premium.

Support for this belief was challenged, however, by Ailawadi *et al.*(2001). Burton *et al.* (1998) pointed out that the danger for a retailer using low prices alone with which to compete is that some consumers may use price as a proxy for quality. Richardson *et al.*(1994) found that private-label brands were considered by shoppers to be inferior in quality terms to national brands.

Retailers should promote PLs by which it decreases the level of perceived risk while increase level perceived image of PL / store / retail outlet. As across all categories, attitude towards perceived risk as well as image was found to be unfavorable. Narasimhan and Wilcox (1998) argue that consumers will be less motivated to purchase private-label groceries if the level of perceived risk in that category is high.

The findings of the study can be useful to retailers in formulating strategies to make products other than the national branded ones acceptable in the market, which will help retailers in developing stronger store/private label brands and in increasing their presence and acceptance amongst customers.

#### LIMITATIONS OF STUDY

The scope of this study is limited to Surat & 2 product categories & 5 attributes. The results and findings of the study are thus limited in their ability to be projected to the country or foreign countries & other categories. There is no denying the fact that because of socio-economic and cultural differences there is a variation in attitude of people.

#### REFERENCES

- Ailawadi, K., & Keller, K. (2004). "Understanding retail branding: Conceptual insights and research priorities". *Journal of Retailing*, 80(4), 331-342.
- Ailawadi, K., Neslin, S., & Gedenk, K. (2001). "Pursuing the value-conscious consumer: Store brands versus national brand promotions". *Journal of Marketing*, 65(1), 71-89.
- Ashokkumar, S. and Gopal, S. (2009), "Diffusion of Innovation in Private Labels in Food Products," *The ICFAI University Journal of Brand Management*, 6(1), pp 35-56

- Babakus, Emin, Peter Tat and Cunningham (1988). "Coupon Redemption: A Motivational Perspective." *Journal of Consumer Marketing*, 5(2), Spring, pp. 37-43.
- Batra, R., Sinha, I. (2000), "Consumer-level factors moderating the success of private label brands". *Journal of Retailing* 76 (2), pp175-191
- Bauer, R. A. (1967). "Consumer Behavior as Risk Taking," pp. 22- 33 in D. F. Cox (Ed.), *Risk Taking and Information Handling in Consumer Behavior*. Boston, MA: Harvard University Press.
- Bellizzi, Joseph A., Harry F. Krueckeberg, John R. Hamilton, and Warren S. Martin (1981). "Consumer Perceptions of National, Private, and Generic Brands," *Journal of Retailing*, 57(4), pp. 56-70.
- Bettman, J.R., 1973. "Perceived risk and its components: A model and empirical test". *Journal of Marketing Research* (pre-1986) 10 (2), 184-190.
- Cohen, J.B., Fishben, M. and Ahtola, O.T. (1972), "The nature and uses of expectancy-value models in consumer attitude research," *Journal of Marketing Research*, 9(November), pp 456- 460
- Cox, Donald F. (1967). "Risk Handling in Consumer Behavior- An Intensive Study of Two Cases," pp. 34-81 in D. F. Cox (Ed.), *Risk Taking and Information Handling in Consumer Behavior*. Boston, MA: Harvard University Press.
- Cunningham, Isabella C.M.; Hardy, Andrew P., and Imperia, Giovanna. (1982), "Generic Brands Versus National Brands and Store Brands," *Journal of Advertising Research*, 22, (Oct/Nov), pp 25-32
- Dolekoglu, C.O., Albayrak, M., Kara, A. and Keskin, G. (2008), "Analysis of Consumer Perceptions and Preferences of Store Brands Versus National Brands: An Exploratory Study in an Emerging Market", *Journal of Euromarketing*, 17(2), pp 109- 125
- Dunn, Mark G., Patrick E. Murphy, and Gerald U. Skelly (1986). "The Influence of Perceived Risk and Brand Preference for Supermarket Products," *Journal of Retailing*, 62(2), pp. 204-17
- "FDI for Retail Brands", *Business India*, January 2, 2005, p.30
- Gabor, Andre and C. W. J. ranger (1979). "On the Price Consciousness of Consumers," *Management Decision*, 17(8), pp. 551.
- Global Retail Development Index (2007). AT Kearney Survey.
- Hoch, S. and Banerji, S. (1993) 'When do private labels succeed?', *Sloan Management Review*, 34(4), pp. 57-67.
- "Into Our Own", *Retail Biz*, September 2004, p.17-18
- "Invading Private Labels", *Retail Biz*, September 2004, p. 19-20
- Kotler, Philip, 2000. *Marketing Management*, The Millenium Edition, Prentice-Hall India.
- Lumpkin, James R., Jon M. Hawes, and William R. Darden (1986). "Shopping Patterns of the Rural Consumer: Exploring the Relationship Between Shopping Orientations and Outshopping," *Journal of Business Research*, 14(1), February, pp. 63-82.
- Narasimhan, C. and Wilcox, R. (1998) "Private labels and the channel relationship:A crosscategory analysis", *Journal of Business*, 71(4), pp. 573-600.
- Richardson, Paul S., Arun K. Jain, and Alan Dick (1996). "Household Store Brand Proneness: A Framework," *Journal of Retailing*, 72 (2), pp. 159-185.
- Rosen, D. (1984). "Consumer perceptions of quality for generic grocery products: A comparison across categories". *Journal of Retailing*, 60(4), 64-80.
- Sethuraman, Raj (1992). "Understanding Cross-Category Differences in Private Label Shares of Grocery Products," Cambridge, MA: Marketing Science Institute, Report No. 92-128.
- Sethuraman, Raj and Catherine Cole (1997). "Why do Consumers Pay More for National Brands than for Store Brands?" Cambridge, MA: Marketing Science Institute, Report No. 97-126, December.
- Wells, L.E., Farley, H. and Armstrong, G.A (2007), "The importance of packaging design for own-label food brands," *International Journal of Retail & Distribution Management*, 35(9), pp 677-690

## CONSUMER SATISFACTION ON TWO WHEELER MOTOR BIKES: A STUDY ON NANDYAL, KURNOOL DISTRICT, A.P., INDIA

**DR. P. SARITHA SRINIVAS**  
**ASST. PROFESSOR, DEPARTMENT OF BUSIENSS ADMINISTRATION**  
**YOGI VEMANA UNIVERSITY**  
**KADAPA – 516003**

### ABSTRACT

*The essence of modern marketing lies in building of profit along with creating meaningful value satisfaction for the customers, whose needs and desires have to be coordinated with the set of products and production programmes. Therefore, marketing success of an enterprise depends on its ability to create a community of satisfied consumers. All the business activities should be carried out in ways which are directed towards the satisfaction of the consumer needs. Consumer behaviour is affected by a host of variables ranging from personal, professional needs, attitudes, values, personality characteristics, social, economic and cultural background, age, gender, professional status to social influences of various kinds exerted a family, friends, colleagues and society as a whole. Everybody in this world is a customer. The customers need a variety of goods and services right from our birth to death. All customers are buyers and all buyers are not customers. The attitude of customer or buyer decides how demand will emerge for a new product and service and how existing goods and services are sold. Customer satisfaction is the process and activates the people engage in searching for, selecting, purchasing, using, evaluating and disposing of products and services so as to satisfy their needs and desires. Consumer buying behavior is influenced by four major psychological factors-motivation, perception, learning, and beliefs and attitudes. The main aim of this paper is to identify factors which are influencing on customers for purchase of motor vehicles of Sowjanya Pvt. Ltd., Nandyal, Kurnool district. Finally, it ends with a set of opinions from the respondents who brought the motor vehicles are influenced by the brand image, mileage and price. The study will help to know the different services provided by Hero Honda bikes and the satisfaction derived by people from the performance of the bike. It also helps to know the level of awareness of customers regarding the new launching bikes of Hero Honda. The required data for the study has been collected from both primary & secondary data sources. The data has been analysed based on customer awareness, age, income, customer opinion, customer satisfaction, price quality of the bike and the like. Major findings and suggestions are found in the study. Finally, it is concluded with conventions and inferences. The consumer decision to purchase a bike is based on own perception, experience and belief and role of friends, relatives and family members is found to be significant. The brand preference is much depending on image, mileage and price. The advertisement in televisions, newspapers, magazines is effective in giving information to the consumers about the vehicle and its characteristics. Thus, the customer's satisfaction of motor bikes is not based on single variable; it is multivariable decision and requires a careful study of customers' socio-economic needs from time to time.*

### KEYWORDS

Consumer, Two Wheeler, Motor Bikes, Value, Satisfaction, Behaviour.

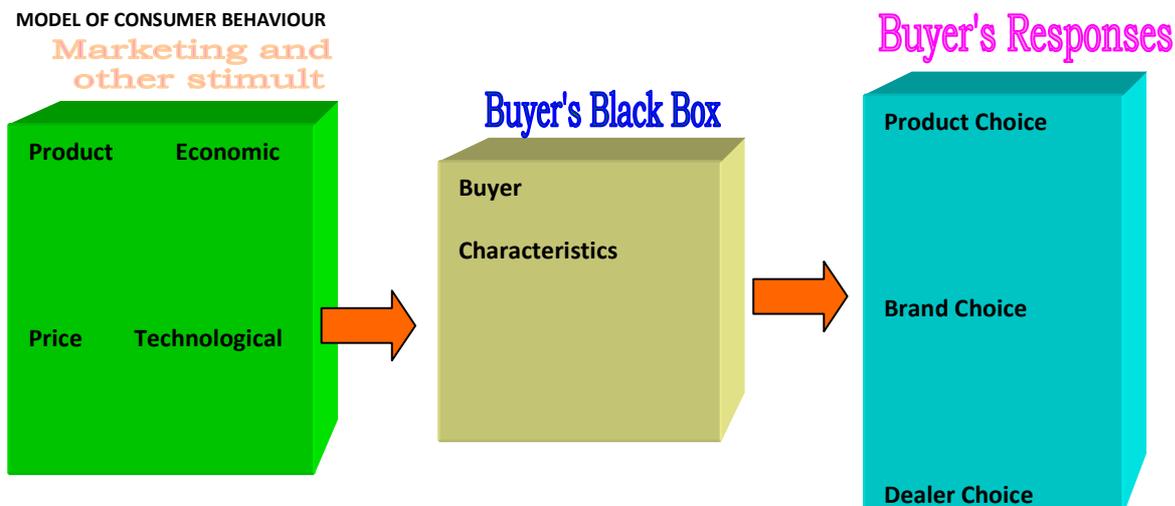
### PROLOGUE

**T**he marketing concept is consumer oriented and the emphasis is more on the consumer rather than on the product. The essence of modern marketing lies in building of profit along with creating meaningful value satisfaction for the customers, whose needs and desires have to be coordinated with the set of products and production programmes. Therefore, marketing success of an enterprise depends on its ability to create a community of satisfied consumers. All the business activities should be carried out in ways which are directed towards the satisfaction of the consumer needs. Consumer behaviour is affected by a host of variables ranging from personal, professional needs, attitudes, values, personality characteristics, social, economic and cultural background, age, gender, professional status to social influences of various kinds exerted a family, friends, colleagues and society as a whole. The combination of these factors helps the consumer in decision making. Further psychological factors that an individual consumer needs, motivations, perceptions, attitudes, the learning process, personality characteristics are the similarities, which operate across the different types of people and influence their behaviour.

It is an old saying that customer is the 'king' because he is the person on whose decision, demand of any product or service is dependent. The attitude of customer or buyer decides how demand will emerge for a new product and service and how existing goods and services are sold. Everybody in this world is a customer. The customers need a variety of goods and services right from our birth to death. All customers are buyers and all buyers are not customers. The attitude of customer or buyer decides how demand will emerge for a new product and service and how existing goods and services are sold. Customer satisfaction is the process and activates the people engage in searching for, selecting, purchasing, using, evaluating and disposing of products and services so as to satisfy their needs and desires.

### CONSUMER BEHAVIOR

Consumer behavior is influenced by four key sets of buyer characteristics; cultural, social, personal and psychological. Although many of these factors cannot be influenced by the marketer, they can be useful in identifying interested buyers and in shaping products and appeals to serve consumer needs better. Culture is the most basic determinant of a person's wants and behavior. It includes the basic values, perceptions, preferences and behaviors that a person learns from family and other important institutions. Subcultures are "cultures within cultures" that have distinct values and lifestyles and can be based on anything from age to ethnicity. People with different cultural and sub-cultural characteristics have different product and brand preferences. As a result, marketers may want to focus their marketing programs on the special needs of certain groups. Consumer buying behavior is influence by four major psychological factors-motivation, perception, learning, and beliefs and attitudes. Each of these factors provides a different perspective for understanding the workings of the buyer's black box.



The main aim of this paper is to identify factors which are influencing on customers for purchase of motor vehicles of Sowjanya Pvt. Ltd., Nandyal, Kurnool district. Finally, it ends with a set of opinions from the respondents who brought the motor vehicles are influenced by the brand image, mileage and price.

**NEED AND SCOPE OF THE STUDY**

Today one can see the performance of two-wheelers industry expanding its wings for developing and designing to satisfy all economy classes. There are number of studies have been conducted, but no study was suggested effectively to the customer satisfaction in the organization. There is a need to find the customer attitude towards the Hero Honda brand vehicles. The study will help to know the different services provided by Hero Honda bikes and the satisfaction derived by people from the performance of the bike. It also helps to know the level of awareness of customers regarding the new launching bikes of Hero Honda.

The study deals customer satisfaction with reference to Sowjanya Motors in Nandyal only. It also concentrates preferences purchasing habits and feelings of the customers in the organization.

**OBJECTIVES OF THE STUDY**

- > To assess the customer satisfactory level
- > To study the information resources that the customers desires and needs
- > To study the customers perception regarding Hero Honda bikes of select company.

**METHODOLOGY AND DESIGN**

There are three branches of Sowjanya Motors Pvt. Ltd., located in Kurnool district, they are Kurnool, Nadyal and Banaganapalli. Among all these branches the selected branch of Sowjanya Pvt. Limited, was incorporated in Nandyal, Kurnool District. The executives and Marketing department officials are enquired for the purpose of the study. The total number of customers of the company is 1500 among them the sampling size of 150 has been selected by using convenient sampling for the study.

**DATA SOURCE AND TOOLS OF ANALYSIS**

The required data for the study has been collected from both primary & secondary data sources. The primary data has been collected from the customers by presenting structured questionnaire and the secondary data has been collected from the company records, company websites and other search engines. Data has been analyzed by using simple percentages and weighted averages for the study.

**DATA ANALYSIS AND STUDY**

Performance Satisfaction is the level of a person's felt state resulting from comparing a products perceived performance in relation to person's expectations. Thus the satisfaction level is the function of the difference between perceived and expectations. The data has been collected from 150 customers in Nandyal and analyzed through various simple percentages and graphs.

**SOURCE OF INFORMATION**

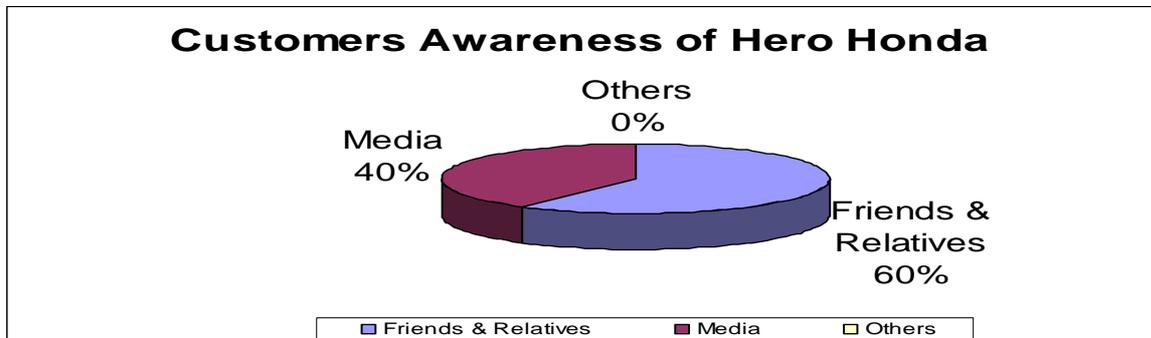
Consumer behaviour is exposed to many external and internal stimulus which helps in decision making. It is very important to know the sources from which the buyers come to know about the motor bikes. The source of information for the customers regarding Motor bikes of Sowjanya Private Limited is given in **Table 1.0**.

**Table 1.0 CUSTOMER AWARENESS REGARDING HERO HONDA MOTOR BIKES OF SOWJANYA PVT LTD.,**

MEDIA	NO. OF RESPONDENTS	% OF RESPONDENTS
Friends / Relatives / Family Members	90	60
Media	60	40
Others	-	-
<b>TOTAL</b>	<b>150</b>	<b>100</b>

**Table 1.0** shows the majority of the respondents 60 per cent came to know about Hero Honda bikes through friends and relatives and remaining 40 per cent of the respondents through electronic media. Thus, it can be inferred that friends, family members and relatives are the best source of information for purchasing bikes of Sowjanya Motor Bikes. It is also shown in **Graph 1.0**.

Graph 1.0



**REASONS FOR BRAND PREFERENCE**

Customers’ preference is most important in selection and purchasing of motor bikes. Based on the customers’ preference only, they purchase the bikes. While buying the bike, any customer may give preference to the mileage, maintenance cost, engine pickup, speed and the like. The following table shows the customers’ preference towards Sowjanya Motor bike in Nandyal.

**Table 2.0: CUSTOMERS’ PREFERENCE TOWARDS HERO HONDA MOTOR BIKES OF SOWJANYA PVT LTD.,**

CUSTOMER PREFERENCE	NO.OF CUSTOMERS	% OF RESPONDENTS
Engine Pickup	39	26
Less Maintenance	24	16
Mileage	78	52
<b>Total</b>	<b>150</b>	<b>100</b>

The above table shows that 52 per cent of the customers prefer Bike Mileage, 26 per cent of the customers prefer the engine pick up and the rest of the customers concentrated on the low maintenance cost of the bike. Thus, most of the customers prefer the mileage of the bike when the purchases are made.

**AGE**

Age is an important factor in determining the customer satisfaction of motor bikes. Hence, the composition of age of consumers is selected for the study is provided in Table 3.0.

**Table 3.0: AGE GROUP OF SELECTED CUSTOMERS IN SOWJANYA MOTORS PRIVATE LTD.,**

AGE-GROUP	NO.OF CUSTOMERS	% OF RESPONDENTS
Below 20 year	18	12
20-30 years	57	38
30-40 years	37	25
40-50 years	20	13
Above 50 years	18	12
<b>Total</b>	<b>150</b>	<b>100</b>

The above table indicates that among the five different age groups classified for the study, the age group of 20-30 years account for the highest percentage i.e., 38 per cent out of 150 customers. It is followed by 30-40 years for 25 per cent of the total respondents. The least group representing 12 per cent belongs to the category of below 20 years of age. Thus, it can be inferred that a majority of the respondents who are in the age group of 20-40 years prefer the two-wheelers because of convenience and cost factors.

**INCOME**

The income level of the family is another important demographic factor determining the pre-purchase consumer behaviour. The desire to purchase a two-wheeler is influenced by level of income of the respondents. The details of income-wise distribution of respondents are presented in Table 4.0.

**Table 4.0: INCOME-WISE DISTRIBUTION OF CUSTOMERS IN SOWJANYA MOTORS PRIVATE LTD.,**

MONTHLY INCOME	NO.OF CUSTOMERS	% OF RESPONDENTS
Below 5000	26	17
5001-10000	40	27
10001-15000	20	13
15001-20000	49	33
Above 20000	15	10
<b>Total</b>	<b>150</b>	<b>100</b>

It is clearly indicated that 33 per cent of the respondents are earning a monthly income of Rs. 15001-20000, followed by 27 per cent respondents earning an income of Rs.5000-10000, 17 per cent of the respondents earning below Rs. 5000 per month, 13 per cent respondents are earning Rs.10001-15000 and 10 per cent of the respondents are earning above Rs. 20000. A majority of the respondents are in the range of Rs.15001-20000 monthly in the study area. It is evident that motor bikes are preferred by middle income group and clearly reflected with 73 (27+13+33) per cent respondents, the income level is Rs.5000-20000. Hence, the lower income and higher income group respondents may not be attractive and feasible for motor bikes of Sowjanya Private limited. The motor bikes by mostly preferred by the middle income people only.

**CUSTOMER SATISFACTION**

Every customer is highly unique and a complex human, yet there are many things customers have in common when it comes to buying. Many factors are involved in their buying and satisfaction, any one or more can give satisfaction to the customer. The factors for the customer satisfaction are presented in Table 5.0.

**Table 5.0: CUSTOMERS' SATISFACTION TOWARDS HERO HONDA MOTOR BIKES OF SOWJANYA PVT LTD.,**

FACTOR	SATISFACTION LEVEL		TOTAL	WEIGHTED AVERAGE SCORE (WAS)
	SATISFIED {2}	DISSATISFIED {1}		
Engine Power	102 (204)	48 (48)	150	1.68
Adjustable Shockers	141 (242)	9 (9)	150	1.67
Kick start in Gear System	135 (270)	15 (15)	150	1.90
Push-type Cancel turn indicator	138 (276)	12 (12)	150	1.92
Models & Colours	114 (228)	36 (36)	150	1.76
Free Services & Warranties	138 (276)	12 (12)	150	1.92
Convenient & Comfortable	132 (264)	18 (18)	150	1.88

The above table indicates, the satisfied and dissatisfied customers in Sowjanya Pvt. Ltd.,. It shows that the majority of the customers highly satisfied (>=1.90 WAS) with 'Free Services and Warranties', 'Push-type Cancel turn indicator'. The customers also satisfied for 'Kick Start in gear System', 'Convenient and Comfortable of the bike', 'Models & Colours of the bike' with more than 1.70 WAS. Thus, it can be conclude that the customers have high satisfaction with the 'free services and warranties' scoring 1.92 WAS and low satisfaction with the 'adjustable shockers' scoring 1.67 WAS.

**OPINIONS OF THE CUSTOMERS**

Customers' opinions or feelings are another important factor in sales process of any organization. The company shall concentrates on the various factors, which are useful to improve its sales and customer satisfaction. Hence, the following factors are considered to determine the sales and customer satisfaction of Sowjanya Pvt. Ltd., (see Table 6.0 and 7.0).

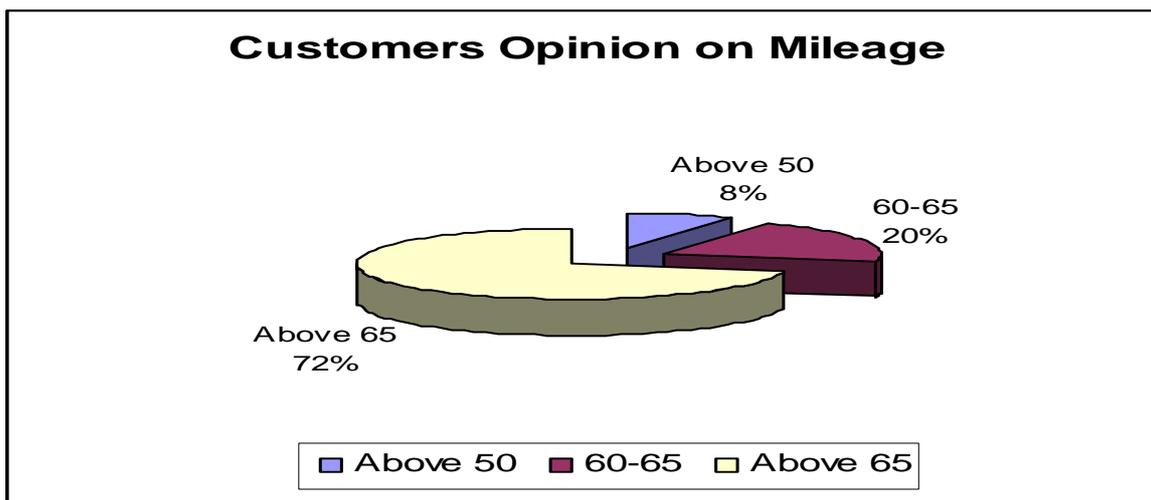
**MILEAGE**

**Table 6.0: CUSTOMERS' OPINION ON MILEAGE**

MILEAGE (Kmpl)	NO.OF CUSTOMERS	% OF RESPONDENTS
Above 50	12	8
60 - 65	30	20
Above 65	108	72
<b>TOTAL</b>	<b>150</b>	<b>100</b>

Table 6.0 provides customers' opinion on mileage of the bike. From this table, it can be inferred that 72 per cent of the customers felt that the mileage of the bike has above 65 kmpl. Only 8 per cent of the respondents felt that the mileage of the bike is only above 50 kmpl. Thus, the majority of the customers felt the mileage of the bike is 65 and above 65 kmpl. It can also be shown in Graph 2.0.

**Graph 2.0**



**OTHER FACTORS**

The customers of the select company expressed different opinions regarding Air Induction System, Quality, Attitude of the service provider, Response Time and Price etc.

**Table 7.0: CUSTOMERS' OPINION ON OTHER FACTORS**

FACTOR	NO.OF CUSTOMERS' OPINION	TOTAL	WEIGHTED AVERAGE SCORE (WAS)
--------	--------------------------	-------	------------------------------

	VERY GOOD {3}	GOOD {2}	POOR {1}		
Air Induction System	33 (99)	99 (198)	18 (18)	150	2.10
Quality	27 (81)	93 (186)	30 (30)	150	1.98
Attitude of the service provider	24 (72)	72 (144)	54 (108)	150	2.16
Response Time	48 (144)	72 (144)	30 (30)	150	2.12
Price	24 (72)	111 (222)	15 (15)	150	2.06

From the above table, it is clearly identified that the customers' opinion is very good and highly scored to 'Attitude of the service provider', which is 2.16 WAS and it is followed by 'Response Time', 'Air Induction System' and 'Price'. Hence, most of the customers highly believed on the 'Attitude of the service provider' and 'Response Time' of the company.

#### PROBLEMS OF CUSTOMERS

There are various problems faced by the customers with motor bikes regarding to Gear Box, engine, colour, mileage maintenance and the like. Few problems are shown in **Table 8.0**.

**Table 8.0: PROBLEMS OF CUSTOMERS OF SOWJANYA MOTORS PVT. LTD.,**

CUSTOMERS' PROBLEM	NO. OF CUSTOMERS	% OF RESPONDENTS
Gear Box	69	46
Engine	48	32
Other	33	22
<b>TOTAL</b>	<b>150</b>	<b>100</b>

Table 8.0 provides a clear picture of various problems. Among these, 46 per cent of the respondents worried about gear box problems followed by 32 per cent with the engine problems and rest of the customers for other problems like colour, mileage, response of the bike and the company representative.

#### FINDINGS OF THE STUDY

The following are the major findings from the customer survey :

- Most of the customers have the awareness regarding Sowjanya Motors Private Limited through their friends, relatives and family members not with the advertisements.
- The customers prefer to purchase the bike is for more mileage i.e., above 65 Kmpl.
- The majority of the respondents who are in the age group of 20-40 years prefer the motor bikes because of convenience and cost factors.
- The lower income and higher income group respondents may not be attractive and feasible for motor bikes of Sowjanya Private limited. Mostly the motor bikes are preferred by the middle income people only.
- The customers are highly satisfied with free services and warranties and push type cancel turn indicator.
- The majority of the customers felt very good regarding representatives' attitude in the service providing and response time but they felt poor in quality compare with other factors.
- Most of the customers bothered about gear box problems of the bike.

#### CONVENTIONS AND CONCLUSION

It is evident that the motor bikes are middle income consumers necessary vehicle. The purchase decision of the motor bikes is influenced by income level and age of the consumers. The consumer decision to purchase a bike is based on own perception, experience and belief and role of friends, relatives and family members is found to be significant. The brand preference is much depending on image, mileage and price. The advertisement in televisions, newspapers, magazines is effective in giving information to the consumers about the vehicle and its characteristics. The customer satisfaction is also depending on the customer's income, life style, preferences etc. Thus, the customer's satisfaction of motor bikes is not based on single variable, it is multivariable decision and requires a careful study of customers' socio-economic needs from time to time.

#### REFERENCES

1. John, A. Howard, "Consumer Behaviour", Prentice Hall Publications, Mumbai, 1989.
2. Edward W. Cardiff, Richard R. Still and Norman A.P. Govani, "Fundamentals of Modern Marketing", Prentice Hall of India, New Delhi, 1985.
3. Indian Journal of Marketing.
4. www.customersatisfaction.in
5. www.marektingstrategies.org.in

## IMPACT OF SOCIO-CULTURAL DYNAMICS ON CONSUMER BEHAVIOUR AT FOOD OUTLETS: AN EMPIRICAL STUDY IN WESTERN MAHARASHTRA

PROF. PADMPRIYA ANAND IRABATTI  
 SR. FACULTY OF MARKETING  
 DEPARTMENT OF M.B.A.  
 BHARATI VIDYAPEETH UNIVERSITY  
 A.K.I.M.S.S.  
 SOLAPUR

### ABSTRACT

*Culture plays vital role in economic development of any country. The wheel of the Indian lifestyle is moving at such an unprecedented pace that it is also affecting the cultural roots of Indian consumers. Lot of Socio-cultural shifts can be observed in this highly competitive era of growing Fast Food culture. This study is an attempt to explore the impact of such Socio-cultural dynamics on consumer preferences at Fast Food outlet. The purpose of this study is to analyse the change in consumer food habits mainly due to change in societal and cultural shifts. As fast food purchases are impulse buying decisions, this paper evaluates how change in social and cultural related impulses influence the behaviour of consumers towards eating at fast food outlets. This paper focuses the societal shifts such as irregular working hours, longer time spent in transit, and fragmented mealtimes, increasing dependency on ready to eat meals, increase in nuclear and dual income families, increasing influence of children in purchase decisions etc.. The impact of cultural dynamics such as increasing influence of western culture, rise in hygiene and beauty conscious customers, customized festival celebrations especially amongst urban citizens, and increasing health consciousness, on food habits is also investigated.*

### KEYWORDS

Fast Food, Socio-cultural shift, consumer behaviour

### INTRODUCTION

The society is made up of people of different tastes. Social change is the result of a number of factors. Changes occur due to the process of formation, reformation or decay at various levels. In most of the cases, social changes occur as an imitation of the upper classes by their respective lower classes. These changes are either positive or negative in nature. Just like social norms the cultural norms also undergo continuous change simultaneously. A culture is the manner of doing things individually, or in an organized manner as a group, which the majority of populace in a particular group adheres with and accepts. Culture is a dynamic flux where the aspirations of the individuals of the society and the values of the community clashes with each other, providing a middle path of change satisfying both the aspirations and value premises of the youth members and the veterans of a culture. The noticeable fact of this flux is aspirations of the youth or new members. They often wins over the value premises of old and that brings about a change in outlook of the society and its values. For the very same reason investigator has divided the total respondents in two age groups, one in the age group of 0-35 years, and other in the age group of 35 and above years.

Over the few decades, eating habits in India have changed dramatically. We have accepted the food in various ways like food as health, food as convenience, food as nature's kitchen, food as luxury, and food as enjoyment. The eating habits of our parents, grandparents and great-grandparents would be completely unrecognizable to many of us today. The idea of eating only three meals a day is a thing of the past. Where once these eating trends were regarded as alternative, now they are mainstream.

Western Maharashtra is a division of Maharashtra state in India. It would be considered as the heartland of Maharashtrian culture for many reasons, not the least of which is that Pune, the cultural capital of the state is located there. Food is weak point of Maharashtrians. According to the survey conducted by 'Consumer Outlook', (May 2002), KSA Technopak, **'Eating out' is second highest spending from their basket.**

There are five districts falls in Western Maharashtra, namely Pune, Kolhapur, Sangli, Satara and Solapur. As Pune and Solapur are two extremes on the level of population and other demographics, investigator has selected these cities as representatives of Western Maharashtra.

There were drastic changes in the culture of Pune in last ten years. As a result of this Puneri food habits had experienced a big shift. Pune has the very best facilities in dining, right from five star, three star hotels, and the city is also the home to some of the biggest International names which include McDonalds, Pizza Hut, Domino's Pizza and many more. Specialty and budget restaurants serving the best of Indian and International food are located all over the city.

Solapur is also one of the upcoming prospective districts in Western Maharashtra with more than 3000 hotels, restaurants and motels. It is very near from Pune, therefore the cultural and social shift in Pune immediately impact the culture of Solapur.

The comparative empirical of this research study are based on two surveys conducted by the author, that are in June 2007 and July 2009.

### LITERATURE REVIEW

Food habits, while shaped by culture, are dynamic and susceptible to changes, through a process of acculturation, brought about by migration to a new country (Wenkam & Wolff 1970; Lee *et al*, 1999). It is well documented that migrants, on immigrating to a new country, often find it difficult to maintain their traditional eating habits, with traditional foods often being difficult to find (Pan *et al*, 1999) and more expensive than Western equivalents (Sharma *et al*, 1999).

### OBJECTIVES

The purpose of the research study is to investigate the impact of few socio-cultural dynamics on consumer behaviour at fast food outlet in Western Maharashtra and thereby suggest few innovative practices to Fast food outlet owners to attract the customers. At the same time author also intend to find out the major socio-cultural shift that has impacted the food habit in Western Maharashtra. Culture is becoming increasingly deterritorialized and penetrated by elements from other cultures. This is resulting in cultural contamination, cultural pluralism and hybridization. It has become more difficult to study culture as it is becoming diffuse. At the same time, it is becoming more important to study it because of its pervasive influence on consumer behavior.

## RESEARCH METHODOLOGY

The primary data includes the data collected from 500 respondents, comprising 200 from Solapur city, and 300 from Pune city. At the same time 20 restaurant owners or staff from Solapur and 30 from Pune were also interviewed to confirm the finding and for further accuracy. By using cluster sampling the two districts i.e. Solapur and Pune are selected. On the spot sampling method was exercised to get the respondents sample from the population. For selecting 50 retailers random sampling is used. The data collected is classified and tabulated and statistically tested thereafter. The secondary data was collected from internet and the different volumes of 'Journal of Retailing'. To author's knowledge, very limited research has been carried out about the issue under study. Therefore it was decided to design exploratory study to identify the impact of socio-cultural dynamics on consumer behaviour at fast food outlet.

## FINDINGS AND ANALYSIS

Food habits are generally culturally driven and deeply ingrained in the psyche of people. Culture is not a fixed absolute truth, and it keeps changing from time to time. In fact, food habits are impacted by many socio cultural shifts. From the initial finding of pilot survey, altogether 9 socio-cultural dynamics were identified and further data pertaining to impact of these changes on consumer behaviour was collected and analysed. Following trends have been found.

### 1. Irregular working hours leading to fragmented mealtime:

The current market is highly competitive and demanding. As a result of this most of us are suffering from irregular working hours which in turn lead to fragmented mealtimes. From the interview of 20 restaurant owners from Solapur and 30 from Pune it was clear that there is no such single meal time when restaurants are flooded with customers. Table 1 shows the percentage of customers visiting the food outlets during the specific time.

Table:1- percentage of customers in total customer visiting the food outlet

Time of visit to food outlet	% of customers in total customer( average of 20 respondents)	
	Solapur	Pune
Before 11 a.m.	21	19
11.00a.m-1.00p.m.	8	14
1.00p.m-3.00p.m.	20	21
3.00p.m-5.00p.m.	7	15
5.00p.m-7.00p.m.	12	17
7p.m.onwards	32	24

Form Table: 1 it is clear that the concept of meals only at three times a day is a past. The time of meals is getting fragmented due to irregular working hours and therefore restaurants will now have to be ready to serve customers at any time with their full efficiency and capacity.

**2. Longer time spent in transit:** Developing cities are spreading their wings, making us to travel more to reach to any place. Also intercity traveling is increasing day by day. In such case the consumer behavior, while selecting the food in transit is worth study.

As Solapur is small city with places fairly nearer and with very few exceptions such as Chicholi MIDC, Solapur University, and few education institutes on Pune-Solapur highway, the time spent in traveling is very less as compared to Pune. In Pune people travel from Pune to Daund in one direction and even to Mumbai in another. It is found that 29% respondents of Pune spend longer time in transit while it is only 11% in case of Solapur. Table:2 gives details about the food choice of customers while in transit.

Table: 2 Food choice of respondents while in transit.

% of respondents preferring food which is quickly available		% of respondents preferring food which is fresh and dry		% of respondents preferring food which is conveniently consumed at any place.	
Solapur	Pune	Solapur	Pune	Solapur	Pune
32	31	27	29	18	37

Table:2 throw light on speed of both cities. The people of Pune who have very less time at their disposal prefer quickly available food, or the food which can be consumed conveniently at any place even while walking or traveling. The observation of residents of Pune justified the above finding where in author found many people consuming food on road or while traveling. Respondents from Solapur were found giving invariably equal preference to all three kinds of food. Only 18% respondents were found giving preference to convenience which display the food culture of Solapur where eating is preferred in a relaxed mood.

**3. Increases in Nuclear and Dual Income families lead to Increasing Dependence on Ready-Made food:** A survey conducted by Consumer Outlook found that there is considerable growth in nuclear families and dual income families in last ten years. The working women being away from home for long time prefer to give quality time to her children and family, when at home and outsource for other household work. In a same line the tendency to outsource food from outside whenever required has increased. It is supplemented with the reason of more money at disposal with dual income families. The frequency of visit to restaurants is one such parameter which can be studied to find out the impact of increasing nuclear and dual income families on food habits. Table: 3 assess the trend in frequency of visit to restaurant in last two years.

Table: 3, Percentage of respondents with respective frequency of visit to food outlet

Frequency of visit	% respondents from Solapur		% respondents from Pune	
	Fig. of June 2007	Fig. of July 2009	Fig. of June 2007	Fig. of July 2009
Daily	3	4	11	12
Twice in week	8	10	16	19

Once in week	11	13	19	21
Twice in month	14	15	17	20
Once in month	29	31	15	18
Total	65	73	78	90
% increase	12.30%		15.38%	

From Table:3 it is seen that in both the cities the frequency of visit to food outlet has increased which is a result of increase in nuclear and dual income families. Again the nuclear and dual income families can be divided on the basis of income, age, family size...etc. These attributes impact on selection of food outlets, selection food items, monthly budget for outside food, and price consciousness.

#### 4) Increasing influence of children in purchase decisions:

The role that children play in family purchase decisions has prompted researcher to study the influence of children on outside food consumption. The amount of influence exerted by children varies by product category and stage of decision making process. Indian society is witnessing increase in single parent and dual income families. In such case the children are at the centre of all decisions. The guilt of inability of giving sufficient time to children is balanced by fulfilling their each demand. The working and independent moms prefer to substitute the outside food for home made food. Therefore while making any decision regarding food; the interest of children is given first priority. Table: 4 discuss the influence of children on purchase decisions on the basis of family pattern. Parents were asked to give opinion about status of children's influence in Yes/ No answer.

Table: 4- Opinion of respondents regarding the status of children's influence in purchase decision.

Percentage of respondents from Solapur				Percentage of respondents from Pune			
Opinion of Nuclear Families		Opinion of Joint Families		Opinion of Nuclear Families		Opinion of Joint Families	
Yes	No	Yes	No	Yes	No	Yes	No
59	23	31	61	66	13	46	54

In Solapur city, 59% of respondents from nuclear families affirmed for children's influence in family purchase decisions as against to only 31% in case of Joint families. The same reality is found in case of Pune city. Thus it is proved that children from nuclear families influence purchase decisions more than that of from Joint families. This influence is also regarding the selection of food outlet, selection of food items from the menu.

#### 5) Increasing influence of Western Culture:

The Western culture because of its overbearing influence is establishing a strong base world wide. Indian lifestyle is not left untouched and particularly the youth of India is very much under the influence of Western culture. Their dressing style, way of enjoyment, and even the food habits are impacted by the western culture.

Due to globalization lot of food chain restaurants like McDonalds, Pizza Hut, Dominos, KFC...etc have entered into Indian market and attracting huge flow of youths towards themselves. Therefore the impact of western culture on eating habits of Indian youth is studied. Respondents were divided into two age groups, one below 35 years and another above 35 years.(below 35 years: Youth, above 35 years: adults). Following trends were found.

Table: 5 Food Choices of Youths and Adults

% of respondents from Solapur				% of respondents from Pune			
Youths (0-35 yrs.)		Adults (above 35 yrs)		Youths (0-35 yrs.)		Adults (above 35 yrs)	
Indian Food	Non Indian Food	Indian Food	Non Indian Food	Indian Food	Non Indian Food	Indian Food	Non Indian Food
74	26	89	11	58	42	76	24

Table: 5 confirm the above justification. Indian youths are more inclined towards western food as compared to adults. Therefore while selecting the food outlet youths are very particular about availability of non Indian food like Pizza, Burger, hot dogs, Sizzlers...etc it is also observed that intake of non-vegetarian food and alcohol is increasing due to impact of western culture.

#### 6) Hygiene and Beauty consciousness on rise in India:

Education plays major role in eating habits. What anyone eats is somewhere related to his education and background. The highly educated people are very much demanding for clean, fresh and pure food, whereas illiterates are not so keen about cleanliness. Therefore with more and more people becoming educated more hygiene consciousness is seen all-around in India. This shift has impacted few habits of people when they visit any restaurants. One of the habits which can be easily assessed is 'Preferring Only Packaged Drinking Water'. Therefore investigator studied how many people demand for only packaged drinking water while eating in restaurant. Following facts were found.

Table:6 Percentage of respondents demanding packaged drinking water(PDW) while eating in restaurant

% of respondents who Prefer only PDW while eating out		% of respondents who Prefer any water served in the restaurant		% of respondents who prefer PDW and ordinary water while eating out.	
Solapur	Pune	Solapur	Pune	Solapur	Pune
18%	24%	54%	33%	28%	43%

Table: 6 shows that 18% respondents from Solapur and 24 % respondents from Pune have voted for only packaged drinking water while eating out anywhere. 28% respondents from Solapur and 43% respondents from Pune are in favour of packaged drinking water but not always. Their choice for packaged drinking water depends on the type of food outlet, or person accompanying. If the food outlet is very ordinary, then the packaged water is demanded or if the person accompanying is high profiled or any body from family, the packaged drinking water is preferred. On asking whether the bad hygiene condition of food outlet had ever made them to change their restaurant decision, 11% respondents from Solapur, and 19% respondents from Pune answered it 'Yes'.

The youngsters are becoming very much beauty conscious and conscious for external appearance. Therefore they search the same in everything around them, even in food. Almost all respondents advocated for nicely presented and decorated food. Not only food items the respondents were found to be keen for interior of food outlet. 59% respondents from Solapur and 78% from Pune considered these aspects while deciding the food outlet and food item.

#### 7) Customized Festival Celebrations:

Indian festivals offer a great opportunity for people from different religions to enjoy the traditional delicacies that are cooked using the traditional recipes. These traditional recipes have been passed on from generations to generations. But the picture is changing slowly in urban sector, wherein the young women have found out their own customized options to celebrate the festival. The tendency of preparing only traditional delicacies is diminishing day by day and customized festival celebration is replacing it.

During investigation it is found that 78% respondents from Solapur and 63% respondents from Pune prepare traditional food items at home for festival. Whereas 16% respondents from Solapur and 28% respondents from Pune outsource these traditional food items from outside. There were few respondents who due to non-availability of time and lack of interest, do not celebrate the festival in traditional way therefore they have found out their own ways of celebrating festival. Many families don't mind for celebrating the festival by going out for eating. Thus festivals are becoming potential business options for food outlets.

#### 8) Increasing Health consciousness in India:

During recent decades, the Indian population has been increasingly exposed to health-related information through the media. People are informed of risk factors and are encouraged to adopt healthier lifestyles, such as increasing their consumption of fruits and vegetables which are low fat and low calorie and performing regular exercise. Therefore survey was undertaken to find out the level of calorie conscious people from Solapur and Pune. Again the respondents are divided in two age groups, below 35 years, and above 35 years. (Youths: age limit 0-35 years, Adults: age limit 35 and above years)

**Table: 7 level of health consciousness amongst youths and adults**

% of respondents form Solapur				% of respondents form Pune			
Age below 35 yrs.		Age above 35 yrs.		Age below 35 yrs.		Age above 35 yrs.	
A	B	A	B	A	B	A	B
28	71	19	80	34	66	27	73

A: Consider fat and calorie content while ordering food item

B: Do not consider fat and calorie content while ordering food item

From Table:7 it can be seen that the tendency of assessing calorie and fat content of food is gaining ground, people are slowing moving towards low calorie and low fat food. Therefore food outlets may also have to be serious about this demand of the customers in future.

#### 9) Indian youth believe in spending rather than saving.

Youth of 80's was very different than that of today. In those days spending for luxury was considered as guilt. Now it is no more guilt. With the advent of Call center jobs in India, youths are becoming financially independence and excessively spending on all sorts of luxuries. The major spending of youths is on apparels and food. This financial state of youngsters displays a peculiar behaviour when in food outlet. The level of price consciousness is studied to study the Spending Vs Saving attitude of respondents. Low level of price consciousness indicates high level of extravagant attitude, and vice versa. To get the accurate finding about this parameter, observation method is used

**Table: 8 level of price consciousness amongst youths and adults**

Level of Price consciousness	% of respondents from Solapur		% of respondents from Pune	
	Age below 35 yrs	Age above 35 yrs	Age below 35 yrs	Age above 35 yrs
High	50	55	40	55
Moderate	30	25	35	30
Low	20	10	25	15

20-25 % respondents from youths' category were found to have low price consciousness while selecting food items at restaurants. This percentage is comparatively low in adults.

Chi-square is calculated to find the dependence of age over price consciousness.

City	Chi-square Value of at 1 degree of freedom and at 5% level of significance ( Table Value= 3.84)
Solapur	1.41
Pune	4.70

The value of chi-square in case of Solapur city is 1.14 which is less than 3.84, therefore it can be concluded that in solapur city age of respondent and price conscious attitude are dependent on each other. But in case of Pune city, the value of Chi-Square is 4.70 which is greater than the table value of Chi-square. Therefore in case of Pune city no such dependency is observed.

### SUGGESTIONS

On the basis of above finding and analysis author wants to quote following suggestions for food outlet management:

- 1) Food outlets will have to be ready with their full efficiency through out the day as the meal time of customers is getting fragmented. Due to this fact there does another opportunity exist; the time specific specialty restaurants could be the best option to beat the competition.
- 2) Convenience food is gaining good demand due to the busy lifestyle. Some innovative punches can be invented to motivate the and attract the customers.
- 3) Children segment should be smartly tacked to attract the customers, because they are silent deciders.
- 4) Impact of Western culture call for inclusion of western food that appeals youths. This may demand more professional and systematic approach.

- 5) Variety of food, hygiene conditions, and interior of outlet plays major roles in decision making process of customers; therefore they should not be neglected.
- 6) As the new trend of customized festival celebration is booming, the restaurant owners can bank upon it by providing the package which will give them combination of traditional experience with a punch of contemporary one.
- 7) Youths are the potential customers for restaurants. Anything and everything that appeal them should be practiced.

## CONCLUSION

It is found that the socio-cultural dynamics significantly impact the consumer habits, especially eating habits. In the light of this study of its impact on consumer behaviour in fast food outlets was an interesting experience. A visible change in food habits usually indicates much deeper changes at work in the society's lifestyles, attitudes and aspirations. Over the past few years, a number of exciting trends have been noted in India's food habits. Even though many of them are niche, they have the necessary force to expand to more consumers in the future. Capturing the explosive power of these food trends at the right time offers a tremendous opportunity for growth of food business.

## REFERENCES

- Bellisle F, Monneuse M, Steptoe A, Wardle J. (1995). Weight concerns and eating patterns of university students in Europe. *Int. J. Obes. Relat. Metab. Disord.*, 19: 723-730.
- Bull N. (1988). Studies of the dietary habits, food consumption and nutrient intakes of adolescents and young adults. *Wld Rev. Nutr. Diet.*, 57: 24-74.
- Huang Y, Song W, Schemmel R, Hoerr S. (1994). What do college students eat? Food selection and meal patterns. *Nutr. Res.*, 14: 1143-1153.
- Kafatos A, Kouroumalis H, Vlachonikolis I, Theodorou C, Labadarios D. (1991). Coronary-heart disease risk-factor status of the Cretan urban population in the 1980s. *Am. J. Clin. Nutr.*, 54: 591-598.
- Lee S, Sobal J, Frongillo E. (1999). Acculturation and dietary practices among Korean Americans. *J. Am. Diet. Assoc.*, 99: 1084-1089.
- Pan Y, Dixon Z, Humburg S, Huffman F. (1999). Asian students change their eating patterns after living in the United States. *J. Am. Diet. Assoc.*, 99: 54-57.
- Wenkam N, Wolff R. (1970). A half century of changing food habits among Japanese in Hawaii. *J. Am. Diet. Assoc.*, 57: 29-32.
- Hupkens CLH, Knibbe RA, Drop MJ. Social class differences in food consumption—the explanatory value of permissiveness and health and cost considerations. *Eur J Public Health* 2000 10:108–13.
- Palveen Kaur (2004), "Children in Family Purchase Decision Making in India: A Review".
- Atkin, C. (1978), "Observation of Parent child interaction in Supermarket Decision making", *Journal Markeing*, 42(October) 41-45.
- Belch G.(1985), " Parental and Teenage influence in family decision making", *Journal of Business Research*, 13(April), 163-176
- Priya (2007), Market Potential for food retailing in Solapur District. Solapur University
- C.Samuel Craig, Susan P. Douglas (2003), " Beyond National Culture: Implications of Cultural Dynamics for Consumer Research", *Journal of International Marketing Review*, Emerald Group Publishing House, Vol 23, Issue 3, pp 322-342

## WEB REFERENCES

- [http://www.easternbookcorporation.com/moreinfo.php?txt\\_searchstring=14891](http://www.easternbookcorporation.com/moreinfo.php?txt_searchstring=14891)
- <http://www.flipkart.com/social-change-twenty-first-century/8126121033-ou23f4ahxd>
- <http://www.nature.com/ejcn/journal/v56/n5/full/1601337a.html>
- <http://www.sciencedaily.com/releases/2007/09/070901073612.htm>
- <http://www.bl.uk/learning/citizenship/foodstories/Accessible/eatinghabits/changesineatinghabits.html>
- <http://www.flipkart.com/portuguese-socio-cultural-changes-india/8190016660-gw23f9994m>
- <http://www.freshpatents.com/-dt20090723ptan20090186131.php>
- <http://www.amsreview.org/articles/kaur08-2006.pdf>
- <http://family.jrank.org/pages/1483/Senegal-Impact-Westernization.html>
- <http://festivals.iloveindia.com/festival-cooking.html>
- [http://goliath.ecnext.com/coms2/gi\\_0199-57143/India-hygiene-and-beauty-consciousness.html](http://goliath.ecnext.com/coms2/gi_0199-57143/India-hygiene-and-beauty-consciousness.html)

## IMPACT OF DERIVATIVES TRADING ON MARKET VOLATILITY AND LIQUIDITY

GURPREET KAUR

LECTURER IN COMMERCE & MANAGEMENT

ARYA COLLEGE

LUDHIANA – 141 001

### ABSTRACT

*Derivatives trading in the stock market have been a subject of enthusiasm of research in the field of finance. The derivatives are defined as the future contracts whose value depends upon the underlying assets. The main logic behind the derivatives trading is that derivatives reduce the risk by providing an additional channel to invest with lower trading cost and it facilitates the investors to extend their settlement through the future contracts. It provides extra liquidity in the stock market. Now, one of the most important issues that have occupied the financial managers and the academicians in Finance all over the world is the financial markets volatility and Liquidity. So here, an attempt has been conducted to find out the impact of derivatives trading on market volatility and liquidity. The purpose of this research paper is to examine the volatility in the Indian stock market after the introduction of futures and option contracts. Various volatility forecasting approaches are used such as ARCH, GARCH and EGARCH models using the data for a sample period of 10 years from April 1997 to March 2010. The closing prices in the end of the day have been used. NSE Nifty 50 index has been used as a proxy of stock market return. The conditional volatility of inter day market returns before and after the introduction of derivatives products are estimated with the GARCH model. The analysis concluded that the derivatives trading have done its work. It has enhanced the efficiency of the stock market by reducing the spot market volatility and by enhancing the liquidity.*

### KEYWORDS

Derivatives, Impact, Liquidit, Volatility.

### INTRODUCTION

The global liberalisation and integration of financial markets has created new investment opportunities, which in turn require the development of new instruments that are more efficient to deal with the increased risks. The most desired instruments that allow market participants to manage risk in the modern securities trading are known as derivatives.

### MEANING OF DERIVATIVES

A derivative is basically a bet. Yes, the stock market is a bet, but at least when you buy a stock, you own a part of the company that provides goods or services. So, it usually has some intrinsic value. But, when you own a derivative, you own nothing. Derivatives include such things as options and futures. The word "derivative" originates from mathematics. It refers to a variable, which has been derived from another variable, i. e.  $Y = f(X)$

WHERE: Y (dependent variable) = DERIVATIVE PRODUCT

X (independent variable) = UNDERLYING ASSET

A financial derivative is a product that derives value from the market of another product. Hence derivative market has no independent existence without an underlying asset. The price of the derivative instrument is contingent on the value of underlying assets. One very interesting example to understand the concept of underlying asset is considering "curd" as derivative. The price of the curd always depends on the price of milk. In other words, we can say the underlying asset on which the value of curd depends is the milk.

### MAIN DERIVATIVE PRODUCTS

#### FORWARDS

A forward contract is a customized contract between two entities, where settlement takes place on a specific date in the futures at today's pre-agreed price.

#### FUTURES

A future contract is an agreement between two parties to buy or sell an asset at a certain time in the future at the certain price. Futures contracts are the special types of forward contracts in the sense that these are standardized exchange traded contracts. All the futures contracts are settled in cash at NSE.

#### TWO TYPES OF FUTURES CONTRACTS ARE AS FOLLOWS

**Index futures:** Index futures are the future contracts where the underlying asset is the index. This is of great help when one wants to take a position on market movements.

**Stock Futures:** A stock futures contract is a standardised contract to buy or sell a specific stock at a future date at an agreed price.

#### OPTIONS

An Option is a contract which gives the right, but not an obligation, to buy or sell the underlying at a stated date and at a stated price. While the buyer of an option pays the premium and buys the right to exercise his option, the writer of an option is the one who receives the option premium and therefore obliged to sell/buy the asset if the buyer exercises it on him.

#### OPTIONS ARE OF TWO TYPES

- Call Option

Gives the buyer a right, but not the obligation to buy a given quantity of the underlying asset, at a give price on or before a given future date.

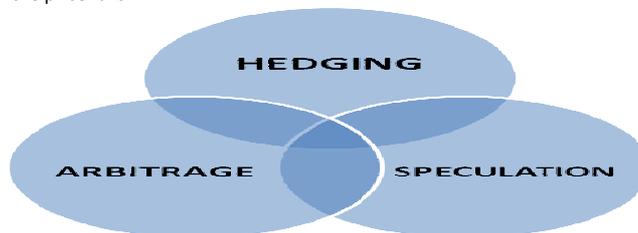
- Put Option

Gives the buyer a right but not the obligation to sell a given quantity of the underlying asset at a given price on or before a given date.

#### USES OF DERIVATIVES

#### HEDGING

Hedging is a tool to reduce the inherent risk in an investment. Various strategies designed to reduce investment risk using call option, put option, short selling, & futures are used for hedging. The basic purpose of a hedge is to reduce the risk of loss. E.g. farmers can sell future contracts on the crop to a speculator before the harvest. The farmer off-loads (or hedges) the risk that the price will rise or fall, and the speculator accepts the risk with the possibility of a large reward. The farmer knows for certain the revenue he will make a profit if the price rises but also risks making a loss if the price falls.



#### ARBITRAGE

The future price of an underlying asset is function of spot price & cost of carry adjusted for any return on investment. However, due to uncertainty about interest rates, distortions in spot price, or uncertainty about the future income stream, price in future market may not truly reflect the expected spot price in future. This imbalance in future & spot price gives rise to arbitrage opportunities. Transaction made to take advantage of temporary distortions in the market is known as arbitrage transactions.

#### SPECULATION

You may have very strong opinion about the future market price of a particular asset based on past trends, current information & future expectations. Likewise you may also have an opinion about the overall market trend. To take advantage of such opinion, individual asset or the entire market (index) could be sold or purchased. Position taken either in cash market of derivative market on the basis of personal opinion is known as speculation.

#### MEANING OF LIQUIDITY

Liquidity is the ability of an investment to be easily converted into cash with little or no loss of capital and with minimum delay. An example of a highly liquid asset is a short term bank bill, while property is a relatively illiquid investment. A liquid asset is a security or other investment that is actively traded and can be readily converted to cash. For example: A stock like General Electric (GE), which has a large number of outstanding shares and trades on the NYSE, is a highly liquid security that has a ready market. By contrast, thinly traded penny stocks often have few bids to buy and few offers to sell. As such, they do not have a ready market and are considered to have low liquidity. Illiquid securities can be quite volatile since the few trades that do occur can have a significant impact on the price.

#### MEANING OF VOLATILITY

It's basically the variation from the average value over a measurement period. If a price varies a great deal from day to day, the volatility will be high, and conversely if the day to day variation is low, the value of volatility will be low as well.

Volatility is calculated as standard deviation as it is the standard measurement device used worldwide to calculate the volatility. Standard deviation is a statistical term that provides a good indication of volatility. It measures how widely values (closing prices for instance) are dispersed from the average. Dispersion is the difference between the actual value (closing price) and the average value (mean closing price). Larger the difference between the two, higher will be the standard deviation and higher will be the volatility and vice-versa.

#### IMPORTANCE OF THE STUDY

The importance of the study lies in the findings of the study undertaken. With the help of this study, we will come to know the following:

- The Meaning of derivatives.
- Uses of the derivatives.
- Impact of the derivatives on market volatility and liquidity.

Derivatives have led to the reduction of volatility in the stock prices and increase in the liquidity of securities, which is good for the growth and development of stock market.

#### REVIEW OF LITERATURE

A number of empirical studies have been conducted in India on the impact of derivatives trading on market volatility and liquidity. Edwards (1988), Mayhew (1992), Spyros I. Spyrou (1997), Abhilash S. Nair (2001), Bologna and Cavallo (2002), Snehal Bandivadekar and Saurabh Ghosh (2005) etc. have conducted various studies to find out the impact of derivatives trading on market volatility and liquidity. The studies reviewed above have taken one or the other aspect of derivative trading and market volatility. There was a mixed opinion about the impact of derivatives trading. That's why an attempt has been made in this study to find out the impact of derivative trading.

#### OBJECTIVES OF STUDY

1. To study the impact of introduction of financial derivative trading on the volatility of Indian stock market.
2. To study the market wide factors contributing to the changes in spot market volatility and its effect on stock market returns.
3. To study the impact of introduction of financial derivative trading on the liquidity of Indian stock market.

#### RESEARCH METHODOLOGY

##### ARCH AND GARCH MODEL

ARCH and GARCH models have been employed to estimate the conditional volatility of stock market returns and the impact of the derivatives trading.

**DATA BASE**

Stock market return is calculated from the daily closing prices of the NSE stock index S&P CNX Nifty 50. CNX Nifty 50 has been used in the analysis as the proxy of stock market return. We also consider the impact of return in Nifty Junior, on which derivative products have not been introduced. The reason is to know whether the derivatives products are the only factors affecting the market volatility or there are some others factors also. A comparison of fluctuations in volatility between Nifty Junior and Nifty 50 may provide a clue to segregate the fluctuations due to introduction of future products and due to other market factors. The analysis is based on daily time series data. Data for the stock indices (Nifty 50, Nifty Junior and S&P 500) has been used for the period of April 1997 to March 2010. The closing prices in the end of the day have been used.

**TABLE 1:- DATE OF INTRODUCTION OF DERIVATIVES PRODUCTS**

Derivative Products	Date of Introduction	Underlying IndEX
Index Futures	June 2000	SENSEX, S& P Nifty
Index Options	June 2001	SENSEX, S& P Nifty
Stock Futures	Dec. 2001	SENSEX, S& P Nifty

**PRE AND POST PERIOD**

The whole time period is divided into two sub-time periods. First is pre-derivatives introduction period that is from April 1997 to June 2000 for index futures, April 1997 to December 2000 for stock futures and from Jan 1998 to June 2001 for index options. Second sub-time period is post-derivatives period from the above categorizations to March 2010. Data are collected from the secondary sources for the purpose of this study. The data are collected from the website of national stock exchange namely www.nseindia.com.

**ANALYSIS AND INTERPRETATION**

In this section the results, tables and figures are given with their interpretation. First, simple statistics have been tested then GARCH models are estimated.

**TABLE 2: COMPARISON OF NSE RETURN FOR PRE AND POST PERIODS**

Time periods	Mean	S. D.	Max.
Pre INDF	0.000625	0.013219	0.09321
Post INDF	0.000691	0.010224	0.09744
t-value	0.144	p-value	NS
Pre STF	-4.994E-05	0.013887	-0.042312
Post STF	0.0008174	0.009741	0.068938
t-value	2.009	p-value	<0.05
Pre OPT	2.219E-05	0.009682	0.063367
Post OPT	0.0006762	0.008143	0.069019
t-value	1.959	p-value	<0.05

In Table-2, we have analyzed the volatility (S. D) of NSE Nifty 50 for pre and post period of introduction of derivatives with some other statistical results, and found that the volatility in the NSE (calculated from NIFDR) has a decreasing trend after introduction of the derivatives as the SD values have gone down.

**RESULT OF GARCH (1, 1) ESTIMATE FOR NSE RETURN**

Models of GARCH error have been estimated for several set of variables. The return series (NIFDR) is selected to test the models. NSE return is a dependent variable. The whole data set is divided into two periods of time, Pre-derivatives introduction period and post-derivatives introduction period. First, the GARCH model has been tested with the dummy variables for whole length of data for each set, and then the GARCH error has been examined for the pre and post introduction period.

**TABLE - 3: RESULT OF GARCH (1, 1) ESTIMATE FOR NSE RETURN PRE-INTRODUCTION OF INDEX FUTURES**

Parameters	Par. Estimate	t-value	p-value
$U^2_{t-1}$	0.140343	6.441	<0.01
$H_{t-1}$	0.038130	2.986	<0.01
INDFN	-0.28916	0.762	NS
Constant	0.001352	4.211	<0.01

R-square = 0.266  
F-ratio = 95.27  
No. of Observations = 789

Table 3 shows the result of GARCH estimate for pre-index futures introduction period and Table 4 shows the result of GARCH estimate for post index futures introduction period. The  $R^2$  is found to be 0.2661 and 0.1785 respectively in both the models. For both the period GARCH effect is significant as it is clear from the p-value.

**TABLE - 4: RESULT OF GARCH (1, 1) ESTIMATE FOR NSE RETURN POST-INTRODUCTION OF INDEX FUTURES**

Parameters	Par. estimate	t-value	p-value
$U^2_{t-1}$	0.324631	6.149	<0.01
$H_{t-1}$	0.569142	5.492	<0.01
INDFN	-0.260178	10.470	<0.01
Constant	0.000117	3.967	<0.01

R-square = 0.1785  
F-ratio = 160.14  
NO. of observations = 2214

The coefficients reported in Table 3 and 4 show that in the GARCH variance equation, ( $b_2$ ) 'old news' components have gone up and  $b_1$  'recent news' components have also gone up in the post Index-future period and these estimates are significant at one per cent level. It can be concluded that introduction of the Index futures has increased the impact of recent news and reduced the asymmetric information. The period of the introduction of the stock futures is different and result has shown that stock future trading is reducing the volatility, though not significantly.

**TABLE - 5: RESULT OF GARCH (1, 1) ESTIMATE FOR NSE RETURN PRE-INTRODUCTION OF INDEX OPTIONS**

Parameters	Par. estimate	t-value	p-value
$U^2_{t-1}$	0.439164	4.836	<0.01
$H_{t-1}$	0.563481	6.944	<0.01
INOPTN	0.446891	8.355	<0.01
Constant	0.000245	9.467	<0.01

R-square = 0.2467  
F-ratio = 113.20  
No. of Observations = 1041

**TABLE - 6: RESULT OF GARCH (1, 1) ESTIMATE FOR NSE RETURN POST-INTRODUCTION OF INDEX OPTIONS**

Parameters	Par. Estimate	t-value	p-value
$U^2_{t-1}$	0.516374	4.658	<0.01
$H_{t-1}$	0.351768	3.567	<0.01
INOPTN	0.020181	2.892	<0.01
Constant	0.000123	14.997	<0.01

R-square = 0.1087  
F-ratio = 79.60  
No. of Observations = 1962

It becomes clear from the tables 5 and 6 that for both the period the information impact is significant and supporting the result of the table-5. After the introduction of index options the coefficient of recent new ( $b_1$ ) has gone up and old news ( $b_2$ ) has gone down. This indicates the uncertainties in the stock market have gone down and the volatility has been reduced. This result rejects the null hypothesis that derivatives have not reduced the volatility of NSE spot market.

The above tests have resulted different things. As we have mentioned that we have taken three time periods that are decided by three important derivatives products. Index futures were introduced from June 2000 and 2000-2001 was the period of a big scam in the stock market. Since 2002 the stock market was able to be taken its stable position and further even at present the stock market has recorded an efficient position. This may be the reason that result for period of options introduction is more trustable.

But the question is whether the derivatives products are the only reasons to reduces/increase the volatility, or are there some others factors affecting the volatility of stock market return? To solve this problem the other variables as NIFJDR, S&P500DR and Derivatives turnover are included as explanatory variables to control the effect of the index futures. The following models are related to this practice.

**TABLE-7: RESULT OF GARCH (1, 1) ESTIMATE FOR NSE RETURN FOR THE WHOLE PERIOD ADJUSTED BY NIFTY JUNIOR AND S&P500 RETURN**

Parameters	Par. Estimate	t-value	p-value
$U^2_{t-1}$	0.351329	7.859	<0.01
$H_{t-1}$	0.537472	14.956	<0.01
INDFN	0.000187	1.497	NS
NIFJDR	-0.095622	9.129	<0.01
S&P500DR	0.017215	1.254	NS
Constant	0.000106	3.789	<0.01

R-square = 0.2261  
F-ratio = 175.12  
Number of Observations = 3003

Though the  $R^2$  came to be only 0.2261 but it is highly significant as indicated by the F-ratio is 175.12. It is clear from the result tabulated in table-7 that the coefficient  $b_2$  for Nifty Junior return volatility is significant at 1% significant level with negative sign indicating that the other factors (market factors) have significantly reduced the volatility in the stock market.

## FINDINGS OF THE STUDY

- The general finding is that introduction of derivatives trading has significant impact on the volatility of the stock market return.
- We also found that derivatives are not a single factor affecting the stock market risk (volatility). There are some other market factors also.
- A lot of efforts have been done by SEBI to control the volatility of the NSE market.

## SUGGESTIONS

- Investors are not very aware about the derivative products traded in stock market. So, it is advisory that awareness should be provided to the investors about these products.
- Though the trading through derivatives is increasing day by day and more new derivatives products have been introduced, the volatility is not much controlled. The functioning area or the size of the market has been speeded enough. In this situation strong regulatory system is desired for well-functioning of the stock market.

**CONCLUSION**

High volatility is considered as high risk in the stock market. To reduce this risk factor in the Indian stock market, a number of steps are being adopted by the market regulators. Introduction of derivatives trading is one of them. The analysis concluded that the derivatives trading have done its work. It has enhanced the efficiency of the stock market by reducing the spot market volatility and enhancing the liquidity.

**BIBLIOGRAPHY**

**Aitken, M; Frino, A. and Jarnecic, E. (1994)**, "Option Listings and the Behaviour of Underlying Securities: Australian Evidence", *Securities Industry Research Centre of Asia-Pacific (SIRCA) Working Paper*, Vol. 3, pp. 72-76.

**Badhani K.N., Bisht Harish, Chauhan Ajay Kumar**, "Derivatives Trading And structural Changes In Volatility" [www.google.com](http://www.google.com).

**Bandivadekar, S, and Ghosh, S., (2003)**, "Derivatives and Volatility on Indian Stock Markets," *Reserve Bank of India Occasional Papers*, 23, pp. 187-201.

**Bandivadekar Snehal and Ghosh Saurabh (2005)**, "Derivatives and Volatility on Indian Stock Markets", *Reserve Bank of India, Occasional Papers*.

**Bolog Nath Golaka (2003)**, "Behaviour of Stock Market Volatility after Derivatives" *NSE NEWS, National Stock Exchange of India, November Issue*.

**Bollogna, P and L. Cavallo (2002)**: "Does the Introduction of Stock Index Futures Effectively Reduce Stock Market Volatility? Is the 'Futures Effect' Immediate? Evidence from the Italian stock exchange using GARCH", *Applied Financial Economics*, 1466-4305, Volume, 12, Issue 3, 2002, pp. 183-192.

**Rao, S.V.R., 2007**, "Impact of Financial Derivative Products on Spot Market Volatility: A Study of Nifty," *The Icfai Journal of Derivatives Markets*, 4, pp. 7-16.

## IMPACT OF THE DEMOGRAPHICAL FACTORS ON THE PURCHASING BEHAVIOUR OF THE CUSTOMERS' WITH SPECIAL REFERENCE TO FMCG: AN EMPIRICAL STUDY

**AMANDEEP SINGH**

**SR. LECTURER, DEPARTMENT OF BUSINESS STUDIES  
BHAI GURDAS INSTITUTE OF ENGG. & TECHNOLOGY  
SANGRUR – 148 001**

### ABSTARCT

*FMCG companies has to cater for needs, preferences, resources and behaviours of the various individuals, as the market is expanding day by day, the situation is getting hard for the FMCG marketers. One of the basic concept that FMCG marketer uses is the dividing the whole market into various segments. But as the markets are changing the basis are hard to fix and their dependability is also uncertain. This research paper highlights the scope of these demographical factors helping the FMCG marketers in segmenting the market.*

### KEYWORDS

FMCG, Market Segmentation, Purchasing Behaviour, Demographical Factors Impact, Future Market Segmentation.

### INTRODUCTION

Purchase routine describes how a customer is purchasing a particular product. But every customer has individual needs, preferences, resources and behaviours. Since it is virtually impossible to cater for every customer's individual characteristics, for that marketers group customers to market segments by variables they have in common. These common characteristics allow developing a standardized marketing mix for all customers in this segment. Segmentation on the basis of their demographical characters like Age, Gender, Marital Status, Education and Occupation etc. is the most commonly used method of the segmentation. Although the dependability on the demographical factors is not right always as the world is become one big global market and the demographical profile of the customers tend to change with that.

### REVIEW OF LITERATURE

**Charlie Nelson**, in his work on Market Segmentation: the Role of Futures Research stated that "Market segmentation is important because markets are becoming increasingly diverse and it is rare for mass marketing to be a profitable strategy. Market segmentation enables more accurate and effective communication of benefits in relation to needs. It helps to identify growth opportunities."

**Lawrence D. Gibson(2001)** debunks the segmentation as a marketing concept because of several presumptuous fallacies. It is descriptive, not predictive, assumes homogeneity and competition-free segments, defines the wrong segment, and because the four practices used in segmentation are incorrect

**Laura Lake (2009)** Market segmentation is one of the steps that goes into defining and targeting specific markets. It is the process of dividing a market into a distinct group of buyers that require different products or marketing mixes. A key factor to success in today's market place is finding subtle differences to give a business the marketing edge. Businesses that target specialty markets will promote its products and services more effectively than a business aiming at the "average" customer. Opportunities in marketing increase when segmented groups of clients and customers with varying needs and wants are recognized.

### OBJECTIVES

To study how the purchasing behaviour of the consumer changes with the change in the demographical factors like gender, age, education, marital status and occupation.

### HYPOTHESIS

$H_0$ : There is a significant association between purchase routine and demographical factors (gender, age, education) of the respondents

### RESEARCH METHODOLOGY

The study was descriptive in nature; a structured questionnaire was used for this research. A stratified random sampling technique was used to select 500 customers of the bathing soap and the respondents were contacted personally for the same. The study was carried out in the major cities of Punjab and Haryana. For data analysis IBM PASW 18 software was used.

### DEMOGRAPHICAL ANALYSIS OF THE RESPONDENTS

TABLE 1: GENDER CLASSIFICATION

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Male	376	75.2	75.2	75.2
Female	124	24.8	24.8	100.0
Total	500	100.0	100.0	

It was found that out of the total respondents 75.2% were male where as only 24.8% were female. (Table 1)

**TABLE 2: AGE CLASSIFICATION**

	Frequency	Percent	Valid Percent	Cumulative Percent
ValidLess than 20	13	2.6	2.6	2.6
Between 20 to 30	301	60.2	60.2	62.8
Between 30 to 40	111	22.2	22.2	85.0
More than 40	75	15.0	15.0	100.0
Total	500	100.0	100.0	

Most of the respondents (60.2%) were in the age group of 20 to 30, 22.25 were the respondents in the age group of 30 to 40, 15% respondents were over 40 and very little (2.6%) were below 20 years. (Table 2)

**TABLE 3: INCOME CLASSIFICATION**

	Frequency	Percent	Valid Percent	Cumulative Percent
ValidNo Income	163	33	33	33
Less than 10k	75	15	15	48
Between 10k to 20k	86	17	17	65
More than 20k	176	35	35	100
Total	500	100	100	

33% respondents were not having any income as most of them were the students and some of them were looking for job, where as 15% respondent were earning less than 10000 per month, 17% respondents were earning between 10000 to 20000 and a large number of the respondents(35%) were earning more than 20000 per month. That shows the high degree of income inequality between respondents.(Table 3)

**TABLE 4: CLASSIFICATION BY MARITAL STATUS**

	Frequency	Percent	Valid Percent	Cumulative Percent
ValidUn Married	200	40.0	40.0	40.0
Married	300	60.0	60.0	100.0
Total	500	100.0	100.0	

60% respondents were married and 40 % of the respondents were unmarried (Table 4)

**TABLE 5: CLASSIFICATION BY EDUCATION LEVEL**

	Frequency	Percent	Valid Percent	Cumulative Percent
ValidNo Education	25	5.0	5.0	5.0
School	73	14.6	14.6	19.6
Graduation	199	39.8	39.8	59.4
Post Graduation	203	40.6	40.6	100.0
Total	500	100.0	100.0	

40.6 % of the respondents were post graduate, 39.8% respondents were graduates, 14.6% have done basic schooling only, only 5% were having no education.(Table 5) This shows the increasing number of literacy rate in Punjab and Haryana

**ANALYSIS OF THE PURCHASE ROUTINE OF THE CUSTOMERS**

**TABLE 6: HOW OFTEN THE PRODUCT IS BEING PURCHASED**

	Frequency	Percent	Valid Percent	Cumulative Percent
ValidOnce a Week	25	5.0	5.0	5.0
Once in fortnight	13	2.6	2.6	7.6
Once In Month	277	55.4	55.4	63.0
Not Fixed	185	37.0	37.0	100.0
Total	500	100.0	100.0	

More than half portion of the respondents (55.4%) like to purchase once in month where as 37% respondents were not fixed about their purchase, 2.6% like to purchase once in the fortnight and 5% like to purchase it for weekly basis. (Table 6)

**IMPACT OF DEMOGRAPHICAL FACTORS ON THE PURCHASE ROUTINE**

TABLE 7: RELATIONSHIP BETWEEN PURCHASE ROUTINE OF SOAP AND GENDER OF THE RESPONDENTS

			Gender		Total
			Male	Female	
How often Bathing Soap is Purchased	Once a Week	Count % within Gender	0 .0%	12 9.7%	12 2.4%
	Once in fortnight	Count % within Gender	64 17.0%	0 .0%	64 12.8%
	Once In Month	Count % within Gender	189 50.3%	0 .0%	189 37.8%
	Not Fixed	Count % within Gender	123 32.7%	112 90.3%	235 47.0%
Total	Count % within Gender	376 100.0%	124 100.0%	500 100.0%	

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	185.670 <sup>a</sup>	3	.001
Likelihood Ratio	234.863	3	.001
Linear-by-Linear Association	46.801	1	.000
N of Valid Cases	500		

Mostly males prefer purchasing once in month (50.3%), or they are not fixed (32.7%) Mostly female are not fixed in their purchasing (90.3%) (Table 9) Chi-square significance .001 shows that data is significantly related. So purchase routine of males is significantly different from females. Hence H<sub>0</sub> is Accepted

TABLE 8: RELATIONSHIP BETWEEN PURCHASE ROUTINE AND AGE OF THE RESPONDENTS

			Age				Total
			Less than 20	Between 20 to 30	Between 30 to 40	More than 40	
How often Bathing Soap is Purchased	Once a Week	Count % within Age	0 .0%	12 4.0%	0 .0%	0 .0%	12 2.4%
	Once in fortnight	Count % within Age	0 .0%	64 21.3%	0 .0%	0 .0%	64 12.8%
	Once In Month	Count % within Age	0 .0%	114 37.9%	37 33.3%	38 50.7%	189 37.8%
	Not Fixed	Count % within Age	13 100.0%	111 36.9%	74 66.7%	37 49.3%	235 47.0%
Total	Count % within Age	13 100.0%	301 100.0%	111 100.0%	75 100.0%	500 100.0%	

Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	82.585 <sup>a</sup>	9	.000
Likelihood Ratio	111.646	9	.000
Linear-by-Linear Association	21.038	1	.000
N of Valid Cases	500		

Most of the time people of all ages are not fixed about their purchase (47% in total) or they like to purchase once in month (37.8% in total) (Table 10), that is the same case for all the age groups. Chi square significance level is .000 shows that data is significantly interrelated. Hence H<sub>0</sub> is Rejected

TABLE 9: RELATIONSHIP BETWEEN PURCHASE ROUTINE AND EDUCATION OF THE RESPONDENTS

			Education				Total
			No Education	School	Graduation	Post Graduation	
How often Bathing Soap is Purchased	Once a Week	Count	12	0	0	0	12
		% within Education	48.0%	.0%	.0%	.0%	2.4%
	Once in fortnight	Count	0	12	26	26	64
		% within Education	.0%	16.4%	13.1%	12.8%	12.8%
	Once In Month	Count	13	13	76	87	189
		% within Education	52.0%	17.8%	38.2%	42.9%	37.8%
	Not Fixed	Count	0	48	97	90	235
		% within Education	.0%	65.8%	48.7%	44.3%	47.0%
Total	Count	25	73	199	203	500	
	% within Education	100.0%	100.0%	100.0%	100.0%	100.0%	

## Chi-Square Tests

	Value	Df	Asymp. Sig. (2-sided)
Pearson Chi-Square	260.047 <sup>a</sup>	9	.000
Likelihood Ratio	119.929	9	.000
Linear-by-Linear Association	12.456	1	.000
N of Valid Cases	500		

Purchase routine remains not fixed for the educated respondent regardless of level (47%), where as uneducated people prefer to purchase once in month (52%) or once in week (48%). So it varies for educated and non educated people but does not vary for different levels of education. Chi square significance level is .000 shows that data is interrelated. **Hence Ho is rejected**

## FINDINGS

- Majority of the respondents were male (75% approx.)
- Majority of the respondents were in the age group of 20 to 30 and 30 to 40 (62% and 22% respectively)
- 35% respondents were earning more than 20000 per month where as 33% respondents without any earning as most of them were the students and the persons who were searching for the jobs
- 60% respondents were married and 40 % were unmarried.
- Most of the respondents were graduate or post graduate(39.8%, 40.6% respectively)
- More than half portion of the respondents(55.4%) like to purchase bathing soap only once in a month
- Purchase routine is different for males and females
- Purchase routine is independent of the age
- Purchase routine does not vary with the increase in the educational level (from basic school education to higher education), however it is different for educated and non educated respondents.

## CONCLUSION

Whenever the FMCG Companies try to segment the market, they stress on the demographical segmentation because it has been seen in the past that the purchase routine varies with the various demographical factors. But this study reveals that dependency on the demographical factors for the market segmentation is no longer significant, as the purchase routine is almost same (except for gender) for the most of the respondents. That leaves a need for developing more effecting marketing segmentation basis.

## REFERENCES

- Kotler Philip(2000), "Marketing Management- Millennium edition", Prentice Hall of India Private Limited  
 Luck & Rubin,(August 2007) "Marketing Research", Prentice Hall India  
 Boyd, Westfall & Stasch (2005)," Marketing Research", AITBS  
 William D. Neal, John Wurst (2001),"Advances in Market Segmentation", Marketing Research: A Magazine of Management and Applications.  
 Charlie Nelson (August 2002) "Market Segmentation: The role of future research", Foresee change, Australia.  
 "Segmentation in the maturing marketplace" (2005), Hot Marketing, Issue No. 7, The Chartered Institute of Marketing.  
 Steenkamp and Ter Hofstede (2002) "International market segmentation: issues and perspectives", Intern. J. of Market Research, vol 19, 185-213  
 Wedel, Michel and Wagner A. Kamakura (2000). Market Segmentation: Conceptual and Methodological Foundations. Amsterdam: kluwer  
 Lieberman, Michael (2003) "A beautiful segmentation", Quirk's Marketing Research Review  
 McKenna, R.(1988), "Marketing in the age of diversity", Harvard Business Review

## FINANCING STRATEGIES IN POWER PROJECTS FINANCING FOR THE DEVELOPMENT OF ECONOMY - INVESTMENT OPPORTUNITIES AND CHALLENGES – A STUDY OF INDO-CANADIAN EXPERIENCES

**MR. K. S. SEKHARA RAO**  
**RESEARCH SCHOLAR, SCHOOL OF MANAGEMENT STUDIES**  
**UNIVERSITY OF HYDERABAD**  
**HYDERABAD - 500 046**

### ABSTRACT

*The Indian economy is booming, with rate of Gross Domestic Product (GDP) growth exceeding 8% every year since 2003/04. Long-run economic growth is influenced by the availability of infrastructure services including electricity. In order to support a sustaining high GDP growth rate of around 9 percent per annum, demand for power can be expected to rise at the rate around 10 percent annually for the next decade. Power sector contribution to Indian GDP is 2.4 percent, it is very significant. Keeping in view the impact of investment for the development of GDP, the study has been undertaken to analyze the role of investment in power sector for the development of economy in India and Canada. The study mainly focused on the inflow of investment in power sector, mode of financing and the influence of various risk factors on inflow of investment. The compared the level of investment by public and private sectors in both India and Canada and also analyze the reasons for the short fall of invest .finally the study draws some conclusions from the experiences of both countries and made suitable suggestions for the development of investment and various measures to be taken for attracting private sector for its investment.*

### KEYWORDS

Investment, Project financing, Risk, Investment strategies, India, Canada.

### INTRODUCTION

Infrastructure is also a key component of the investment environment, in general (World Bank, 2005a). The growth of the country mainly depends on the development of the infrastructure of that country. In India there is a significant contribution of infrastructure sector to the development of economy. The Indian economy is booming, with rates of Gross Domestic Product (GDP) growth exceeding 8% every year since 2003/04. Long-run economic growth is influenced by the availability of infrastructure services including electricity. India's GDP is projected to grow annually at an average rate of 9 per cent over the Eleventh Plan period. Based on investment levels in infrastructure in several cross country analyses of fast growing Asian economies, gross capital formation (GCF) in infrastructure may need to be accelerated to around 11 per cent by the terminal year of the Eleventh Plan to achieve this targeted annual growth in GDP of 9 per cent. Regarding to the investment of power sector, chronic power shortages and widening power supply-demand gap is creating tremendous opportunity for private investment encouraged by government policies (Canning & Pedroni, 2004; Calderon & Servén, 2004). Financing power projects is critical issue. The demand for investment in the electricity sector in the world stands at an astonishing USD9.8 trillion between 2000 and 2030, including about 40% of this for power generation alone. The degree of financing to this sector is influenced by the method of project financing and various risks involved in the sector. Whereas Private investment plays key role for the development of the power projects. The flow of private capital from developed to developing economies is influenced by higher expected returns and the growth potential of developing markets. The investors can choose from a basket of opportunities in various countries and across a number of sectors. The factors influencing this decision are: **Country Specific Factors:** these include macroeconomic fundamentals, growth potential and political stability. **Sector Specific Factors:** these include policies that influence industry structure, entry, competition and pricing behaviour in the sector under consideration. The cross-sectoral issues like liberalization of fuel markets also effect investment in power generation projects. **Project Specific Factors:** These include a number of contractual issues such as Power Purchase Agreement, Fuel Supply Agreement, Land acquisition, Environmental issues etc. Woodhouse (2005a), in his study, identified five key factors that constitute the investment climate for private investment in the power sector: (i) strong public finances, (ii) viability of the sector, (iii) efficiency of fuel markets, (iv) political climate including the role of civil society, and (v) the legal framework. The present study focuses on the comparative analysis of financing power projects in Canada and Indian power sectors where funds requirement is very high but the funds invested in power projects in both Canada and India are very less. The investment in power projects mainly depends upon risk profile of the project like, Construction risk, Operating risk, Market risk, Interest rate risk, etc. This paper examines the policies, methods/approaches of financing power projects and identifies opportunities and challenges in investments in both Canadian and Indian power sector. It attempts to draw lessons about investments in power sector projects. The paper is divided into four parts. Conceptual frame work is presented in the first part, power sector scenario and opportunities and challenges in investment in power sector in Canada is presented in the part-2; similarly power sector scenario and opportunities and challenges in investment in power sector in India are presented in part-3 and finally findings and conclusions are presented in part-4.

### CONCEPTUAL FRAMEWORK

There is a close relationship between infrastructure financing and project financing "A sum total of all those activities undertaken in the financing of infrastructure development is known as infrastructure financing" (Dr. S. Gurusamy 2005) "Infrastructure financing refers to any credit facility extended by banks and financial institutions for developing, operating and maintaining any infrastructure facility (RBI). Project finance refers to "The raising of funds to finance an economically separable capital investment project in which the providers of the funds look primarily to the cash flow from the project as the source of funds to service their loans and provide the return of and a return on their equity invested in the project (John D Finnerty 2007). If a project is implemented using a project-finance approach, the debt service payment relies solely on the project cash flows and its assets (Andreas Wibowo et.all 2005). Project-based financings must have time-certainty and cost-discipline to attract private debt and equity capital (Willard price 2002). For the development of country economy the power sector

contribution is significant. For the rapid growth of this sector large amount of funds are required. Providing required amount of funds to this sector by the government is not possible. Private sector participation in infrastructure is desirable not only to ensure a larger flow of resources but also to introduce greater efficiency in the supply of these services (Montek S. Ahluwalia). The major risks a project sponsor faces are political, financial, construction, operational, and market risks (John E. Schaufelberger et al. 2003).

#### SOURCES OF FINANCING

The important sources are Equity long-term debt markets, commercial bank loans, fixed rate debt markets, they are LIC's Quasi - public markets, public pension funds, private pension funds and other financial institutions. International capital market, supplier credits, Governmental assistance World Bank loans, inter American development bank, and local sources of capital World Bank loans - IBRD, IFC and Multi lateral Investment Guarantee Agency (MIGA) (John D Finnerty 2007). Innovative financing instruments, such as simple subordinated debt, convertible debt, debt with stock warrants, and debt with an additional interest payment above the coupon rate contingent upon financial performance exist (Montek S. Ahluwalia). Another important source is *mezzanine finance* (quasi-equity). Equity has the lower rank and the last claim on the assets and cash flows of the project. Debt is often structured in the form of senior debt or subordinated debt. Senior debt has higher priority than all other claims on project cash flows and assets. Subordinated debt ranks behind other unsecured loans in payment obligations. Mezzanine finance refers to a kind of financial instruments that are primarily in the form of debt but also share some qualities of equity capital. Mezzanine finance includes convertible bonds and preferred stock (Xueqing Zhang, M.ASCE 2005). Infrastructure investments are typically upfront, with a high degree of asset specificity and risky revenue stream stretching many years into the future. (Mansoor Dailamiet. all 1998). The established Indian companies have successfully raised foreign currency denominated debt from international markets. The counter guarantee from the government helped the sponsors gaining more debt from other financial institutions (Abu Naser Chodhury, Chichi Charoenngam 2008). The Indian debt market, however, remains dominated by public borrowing, which accounts for 96.02% of the total domestic market borrowings. Private financial institutions and corporate entities constitute just 3.98% of the capital mop up from the domestic debt market.

#### FINANCING STRATEGIES IN POWER PROJECTS

Once a project's revenue stream has been identified, innovative finance techniques can assist in capitalizing the value of the future project revenues to fund the investment. The financing of the private power projects on project financing basis is in the nascent stage. A number of methods have been explored in international infrastructure privatization in the form of (PPP's), including asset sale, contracting out, and deregulation. Apart from these the Conventional financing methods are:

*Structured financing*: As power projects involve large investments, the risk profile along with the cash flow profile of the projects decides the financial structure and package of the project. The institutional financing is mainly done through a consortium. A development financial institution acts as lead banker in the consortium. The other existing form of financing in India has been the equity route.

*Use of special purpose vehicle (SPV)*: The most widespread financing option at present is limited recourse financing. In this method of financing a Special Purpose Vehicle (SPV) is created, which acts as the nodal agency for bringing together private investors and concerned Government agencies for the project. (Jyoti P Gupta and Anil K Sravati 1998). There are various other methods of financing the infrastructure projects they are i) Equity participation of the government ii) Borrowing from institutional financiers ii) Public bond issue with redemption option.

*Leasing of infrastructure*: most of the infrastructure involve a huge amount of fund. The private participation in terms of fund is very low. Hence, the government takes up the task of developing and constructing such projects like, roads and bridges then turns off to private parties. Contracting to sale with fund back up is another method this method of funding process is popularly known as securitization. The idea behind this is to convert a tangible asset in to a fund-based security through a special purpose vehicle (SPV). Once the assets are converted in to fund-based instruments they are sold to the public and cash received. (Abhijit Dutta 2007)

#### RISKS IN POWER PROJECTS FINANCING

Risk is the major element in power projects. The investment in power projects mainly depends upon risk profile of the project like, Construction risk, Operating risk, Market risk, Interest rate risk, Foreign exchange risk, Payment risk, Regulatory risk, Political risk. Liberalization has also affected the way power plants are financed. Firms are also seeking new strategies to hedge their risks. The absence of liquidity in financial markets for electricity, particularly for longer-term products, means that investors must seek other means of hedging their electricity price risks. In Canadian firms are also seeking new strategies to hedge their investments. Prior to liberalization, investment in the power sector was a relatively low business risk and, in many cases, state ownership made access to debt capital relatively easy. Even for independent power producers, the availability of a long-term contract, which would pass the marketing risk through to a single buyer, made it possible to finance investment at a low risk premium.

The reform of electricity market has led to changes in the way decisions are taken on power sector investment by addressing the commercial risks of new investment. The large economic potential of hydro has not been fully utilized in some developing countries because of the very substantial risk premium resulting from the high sovereign risk. We can see risk's of private participation in infrastructure, from the table given below

TABLE 1: THE OPTIONS AND THE RISK FOR PRIVATE SECTOR PARTICIPATION IN INFRASTRUCTURE PROVISION

Option	Asset ownership	Operations of Maintenance	Capital Investment	Commercial Risk	Duration
Service Contract	Public	Public and private	Public	Public	1-2 years
Management contract	Public	Private	Public	Public	3 - 5 years
Lease	Public	Private	Public	Shared	8 - 15 years
Concession	Public	Private	Private	Private	25 - 30 years
BOT	Private of public	Private	Private	Private	20 - 30 years
Divestiture	Private (or) private of public	Private	Private	Private	Indefinite (May be instead by license)

Source: World Bank (1997b), Simon Maxwell and mark Robinson 2006

Because of the nature of the risks and the involvement of many participants, including project sponsors, lenders, government agencies, and regulatory authorities, risk mitigation arrangements are usually complex. They involve detailed legal and contractual agreements that specify

the obligations of different participants, set forth clear penalties for nonperformance, and offer protection to investors against actions beyond their control (*Montek S. Ahluwalia*). regulatory risk is the major element in power sector, because so many clearances are required from regulatory authorities to start power projects we can see the impact of regulatory risk on power projects from the table given below.

**TABLE 2: REGULATORY RISK AND COSTS OF POWER PROJECTS BASED ON THE SIZE OF THE PROJECTS**

Type of project	Unit Size	Capital Cost/KW	Operating Cost	Fuel Cost	Regulatory Risk
Coal	Large	High	Medium	Medium	High
Nuclear	Very Large	High	Medium	Low	High
Hydro	Very Large	Very High	Very low	Nil	High
Wind	Small	High	Very low	Nil	Medium.

Source: Power generation investment in electricity markets: (2003) International Energy Agency, France.

#### STRATEGIES TO HANDLE THE RISK

There are some recommended financing strategies for different project conditions. For low risk projects the financing strategies are: i) use high debt-to-equity ratio for maximum leverage and maximum return on invested equity, ii) establish minimum contingency credit facilities to minimize financing costs, iii) use capital markets to procure debt financing to reduce interest costs. For high political risk the financing strategies are: i) involve international firms or organizations to create leverage with local government authorities, ii) seek assistance from influential individuals or organizations who have rapport with local government authorities, iii) seek local government support and guarantees, and iv) establish contingency credit facilities to cover unanticipated expenses. For high financial risk the financing strategy is to involve international firms or organizations to create leverage with local government authorities. For high market risk the financing Strategies are: i) finance early phases with equity and temporary loans and refinance during the operation phase with lower-cost long-term debt, ii) structure the debt repayment schedule to start low and escalate during the initial years of operation, iii) negotiate contract terms that allow increases in user fees, iv) establish a contingency credit facility to cover unanticipated revenue shortfalls, v) restructure debt, if necessary, to solve cash flow problems during the concession period (*John E. Schaufelberger, et.all 2003*). There are two major approaches that could be thought of as equitable risk sharing arrangements in the financing of infrastructure projects: Concession approach and the structural financing option. Under concession approach, the concessionaire who builds the project, is granted a franchise to operate the project for a specified period. Under the structured financing option, non-recourse financing or limited recourse financing, SPV, GPV, FG etc, apart from this he also provides the financial instrument of asset based securitization, Municipal bonds etc. (*Dr. S. Gurusamy2005*).

#### CANADA POWER SECTOR

Electricity has become a cornerstone of the Canadian economy and Canadian life. Canadians are the third highest per capita users of electricity in the world (*Electric Power: A Canadian Specialty 2001*). Electricity in Canada is generated from a diversified mix of sources. The most important source is moving water, which generates 59.3 per cent of electricity supply. Canada is a world leader in hydroelectricity with over 72 million kilowatts of installed capacity. Fossil fuels are the second most important source of electricity in Canada. About 16.5 per cent of electricity supply comes from coal, 5.2 per cent from natural gas and less than 1.9 per cent from petroleum. Non-hydro renewable sources currently contribute 1.6 per cent of Canada's electricity supply. Hydro generation accounted for 59% of electric power in 2007, the largest source. Nuclear energy provided about 14% of total Canadian electricity production. Electricity generated using fossil fuels accounted for 26%. Total assets for the sector are estimated at \$135 billion. There are more than 160,000 kilometers of transmission wire in Canada. (*The Canadian Council for PPPs*) The International Energy Agency (IEA) has forecast a Canadian electricity infrastructure requirement of USD 190 billion from 2005-2030 (*Canada electricity association 2007*). The power sector contribution to the country's GDP is very significant. In 2007 the share of energy was 27.2% in GDP. Canada's electricity demand is expected to grow by 36 percent from 2008 to 2025. CanWEA's Wind Vision 2025 calls for Canada to meet 20 percent of its total electricity demand from wind energy in 2025.

**TABLE 3: GROSS DOMESTIC PRODUCT, ELECTRICITY GENERATION AND REAL ECONOMIC GROWTH OF CANADA IN 2008**

province	2008 population (000)	GDP (\$ millions)		Electricity generation (megawatt hour)	Real economic growth
		2007	2008		
Newfoundland And Labrador	508	29524	31,458	43,161,902	6.55
Prince Edward Island	140	4549	4,716	106,019	3.67
Nova Scotia	938	33010	34,209	12,164,400	3.63
New Brunswick	747	26947	27,288	14,156,182	1.27
Quebec	7,751	296692	301,479	192,569,564	1.61
Ontario	12,929	584957	587,905	159,520,662	0.5
Manitoba	1,208	48549	50,886	35,144,419	4.81
Saskatchewan	1,016	51628	64,323	18,955,933	24.59
Alberta	3,585	258936	291,662	58,873,829	12.64
British Columbia	4,382	192528	199,214	65,824,059	3.47
Yukon,	33	1,767	2,000	369,934	13.19
Northwest Territories	43	4,776	5,419	685,607	13.46
Nunavut	31	1,386	1,497	155,263	8
Canada	33,311	1535646	1,602,474	601,687,773	4.35

Source: Energy statistics Hand book: First quarter 2009, statistics Canada, Catalogue no. 57-601-X

Canada is a world leader in hydroelectricity, which accounts for 59 per cent of the country's electricity supply. To promote the renewal of conventional capital stock Canadian electricity authority (CEA) introduced some measures: increasing the rate for combustion turbines that generate electricity from 8% to 15%. Quadrupling the Wind Power Production Incentive target to 4000 MW. The total electricity generation in Canada for the year 2007 was 603,572,420 mega watt hours and in 2008 is 601,687,773 mega watt hours (*Energy statistics hand book- Canada*

2007). Based on the National Energy Board (NEB's) 2007 Energy Futures Report, a steady decline of coal-fired generation in Canada is projected from slightly over 16 000 MW to 10 000 MW by 2030. Small hydro is Canada's largest contributor to the green power sector, with close to 2 000 MW of installed capacity compared with about 684 MW of wind power. (NEB 2006)

Total Electricity Generation in Canada (2009) 575.2 Twh. Hydro 63.2%, Nuclear 14.8%, Conventional Steam 17.4%, Internal Combustion 0.2%, Combustion Turbine 4.1%, Tidal 0.01%, Wind 0.3% (Energy Statistics Handbook, 4Q 2009. Table 8.2)

**TABLE 4: ELECTRICITY GENERATION IN CANADA BY ALL ELECTRICITY UTILITIES DURING THE PERIOD 2000-2009**

Year	Electricity Generation (Megawatt Hour)
2000	537,231,585
2001	521,255,136
2002	532,403,594
2003	518,389,813
2004	522,563,325
2005	553,393,449
2006	538,252,752
2007	560,711,979
2008	601,687,773
2009	54117905(Q1*)

Sources: Statistics Canada 2009, U.S. Energy Information Administration

\*First Quarter

#### INVESTMENT IN ELECTRIC UTILITIES IN CANADA

Electricity demand in Canada was expected to grow at an annual rate of 1.3 per cent between 2005 and 2020. Most of the growth in demand would come from the commercial sector, where demand is expected to grow at a rate of 2.6 per cent. Growth in this sector would reflect increased electricity use for space cooling and lighting and, to a lesser extent, for office equipment, ventilation and other uses. Electricity demand in the residential sector is expected to grow at an annual rate of 1.3 per cent. To meet this increased demand large amount of funds are required. For this, government introduced public private partnerships (PPP's). The number of Public-private partnerships (PPP's) in electricity sector 55 in the year 2004, 56 in 2005, 58 in 2006 and 57 in 2007. Renewable Power Production Incentive introduced to stimulate the new capacities of up to 1,500 MW of new renewable energy other than wind energy. Electricity sector capital investment reached \$13.1 billion in Canada. According to a projection by the International Energy Agency, approximately \$190 billion (US) of electricity infrastructure investment will be needed in Canada from 2005 to 2030 (generation \$95 billion; transmission \$27 billion; distribution \$63 billion). In 2000 Canada's export development corporation (EDC) provided over \$45 billion of insurance and financing support to Canadian business, with close to \$1 billion specifically for the Canadian power sector ([www.dfait-maeci.gc.ca](http://www.dfait-maeci.gc.ca)). The details of investment are given in the table.

**TABLE 5: TOTAL INVESTMENTS OF PUBLIC AND PRIVATE ELECTRIC UTILITIES IN CANADA IN 2007**

Province/Territory	All electric Utilities	Public Utilities	Private Utilities
	Thousands of dollars		
Newfoundland And Labrador	644,823	644,823	0
Prince Edward Island	1,150	1,150	0
Nova Scotia	1,878	0	1,878
New Brunswick	646,237	646,237	0
Québec	378,424	228,000	150,424
Ontario	633,756	26,987	606,769
Manitoba	942,437	942,437	0
Saskatchewan	267,632	267,632	0
Alberta	1,234,776	62,979	1,171,797
British Columbia	92,477	90,612	1,865
Yukon,	0	0	0
Northwest Territories	53,983	53,983	0
Nunavut	0	0	0
<b>Total</b>	<b>4,897,573</b>	<b>2964840</b>	<b>1932733</b>

Source: Statistics Canada: Electric Power Generation, Transmission and Distribution – 2007

Investors now examine power generation options according to the different financial risks posed by the different technologies. Given the long-term nature of electricity investments, investment decisions in base load generating capacity are being made on the basis of long-term fundamentals. Liberalization has also affected the way power plants are financed. The Canadian experience with retail price caps appears to be yielding two very different results in terms of investment. The Alberta market experience suggests that a sufficiently high cap on prices may not deter investment in new capacity. However, the recent experience in Ontario shows that actions by government to intervene with low price caps can deter investment. Indeed, such political intervention destroys the integrity of the market by destroying incentives to invest and by creating moral hazard. However the investment increased year by year details see the table below.

**TABLE 6: CAPITAL EXPENDITURE IN ELECTRICITY POWER GENERATION, TRANSMISSION AND DISTRIBUTION**

Year	Capital (Millions of \$)
2000	6417.3
2001	7778.1
2002	8675.0
2003	9666.2

2004	9825.0
2005	9814.1
2006	11774.9
2007	14179.8
2008	17748.8
2009	18492.1 (Q1*)

Source: Statistics Canada 2009. \*First Quarter

In Canada investment of debt funds are very less especially in some provinces, private sector investment is nil, because of the high interest rates of banks in the year 2007 is 4.60 and in 2008 is 3.75. The liberalization electricity market has changed the nature of corporations responsible for investment. The debt funds are major source for the investment in to the power sector. The emergence of the financial markets encouraged the development of a new type of power plant investment – the so-called “Merchant” power plant. Canadian Utilities are notable as active investors and operators of IPPs through PPP’s.

#### OPPORTUNITIES AND CHALLENGES OF INVESTMENT IN CANADIAN POWER SECTOR

The challenge for industry, governments and regulators is to find the optimum level of reliability given the diverse requirements. Good reliability includes continuity of service and appropriate voltage control. Enhancing System reliability through investment, technology and trade (*National Energy board 2004*). The Energy Plan’s objectives are to maintain low electricity rates and maintain public ownership have a secure, reliable energy supply; stimulate private investment. Another challenge is increasing the efficiency of the power plant, and reducing fuel consumption. Replacement of old coal-fired power plants is another challenge which required large amount of funds. Based on the NEB’s 2007 Energy Futures Report, a steady decline of coal-fired generation in Canada is projected from slightly over 16 000 MW to 10 000 MW in 2030. Canadian electricity association (CEA) identified challenges and opportunities are. i) Exploring new technology such as solid state transformers, remote control technology automated meter reading meters and supervisory control data acquisition (SCADA) etc. ii) Demand for new infrastructure investments: CEA estimated that electricity demand in Canada will grow between 1 and 1.5 percent each year for the foreseeable future. This means that significant investment in generation, transmission and distribution infrastructure will be required to meet this demand. CEA currently estimates this at \$150 billion over the next 20 years. iii) High cost of substations and protective equipments which involve high cost capital equipments, making the components hard to replace. iv) Energy efficiency v) new standards for power reliability improving power quality by reducing fluctuations and distortions in electricity voltage. The interest in emerging energy technologies has escalated with wind power leading the way. Wind power capacity almost tripled between 2001 and 2005, accounting for close to 684 MW of installed generating capacity at the beginning of 2006. Recent projections by the Canadian Wind Energy Association (CanWEA) suggest there will be 7 000 MW of wind generation available by 2013. Ontario’s RFP programs for renewable power are guided by policy targets of five percent renewable in the energy mix by 2007 and 10 percent by 2010.

Demand-side Management challenges are Long-term investment and benefit, base load and peak load, environmental advantages, either by using more efficient technologies or by changing wasteful habits conservation and demand management should reduce the electricity demand. Ontario has recognized the connection between consumption, metering and conservation. Setting electricity prices is another challenge, which is governed by three components generation cost, transmission costs and distribution costs. There is lot of variations in the price between provinces in Canada. Minimizing subsidies and fixing levelised tariff is another challenge to power sector. Canadian utilities have turned increasingly to the Repair, Modernize and Upgrade (RMU) option as plants reach the end of their life cycle, it require large investment.

#### INDIA POWER SECTOR

The Ministry of Power started functioning independently with effect from 2nd July, 1992.

Earlier it was known as the Ministry of Energy comprising the Departments of Power, Coal and Non-Conventional Energy Sources. The all India installed power generation capacity as on 31.01.2008 was 141080 MW comprising of 90896MW thermal, 35208 MW hydro,4120 MW nuclear and 10856MW R.E.S The Central Sector’s share in generation has gradually increased from 12% in 1979 to 34% as on 31.01.2008. On the other hand the share of the State Sector has declined from 82.5% to 53% while the share of private sector has gone up from 5.2% to 13% during the same period. State government utilities capacity is 74453.76 MW, central government utilities capacity is 47350.99 MW and private sector utilities capacity is 19275.09 MW. (*Ministry of power annual report 2007-08*). As on 31<sup>st</sup> august 2010 total installed capacity is 1, 64,508.80 MW. The National Electricity Policy (NEP) stipulates power for all by 2012 and annual per capita consumption of electricity to rise to 1000 units from the present level of 631 units. To fulfill the objectives of the NEP, a capacity addition of 78,577 MW has been proposed for the 11th plan (2007-2012). This capacity addition is expected to provide a growth of 9.5 % to the power sector. In the current financial year during period Apr’07-Jan’08 the actual generation was 586.03 BU against 551.54 BU generated during corresponding period of previous financial year representing a growth rate of about 6.25%. Loss of generation due to fuel shortage (mainly gas) was of the order of 27.42 BU. But for this, growth rate would have been about 11.2%. The overall generation, power supply and capacity addition (Thermal+ Nuclear + Hydro) in public utilities in the country over the years are as under:

TABLE7: THE TOTAL POWER GENERATION OF INDIA DURING 1990-91 TO 2009-10

Year	Generation (BUs)
1990-91	264.3
1995-96	380.1
2000-01	499.5
2001-02	515.2
2002-03	531.6
2003-04	558.3
2004-05	587.4
2005-06	617.5
2006-07	662.52

2007-08	704.40
2008-09	723.793
2009-10	771.551

Source: Power: the building block of the economy: annual report 2007-08: ministry of power, government of India.  
[http://www.powermin.nic.in/JSP\\_SERVLETS/internal.jsp](http://www.powermin.nic.in/JSP_SERVLETS/internal.jsp)

Electricity generation capacity with utilities in India had grown from 1713 MW in December 1950 to 141080 MW in 2008. India ranks world's sixth energy consumer accounting for about 3.5% of the world's total annual energy consumption, but per -capita consumption of energy is very low at 631kwh, as compared to world consumption of 2873 kWh, which needs to be increased to meet the goals of economic and social development.

**TABLE 8: THE POWER SUPPLY POSITION OF INDIA FROM 1997-98 TO 2009-10**

Year	Energy Requirement (MU)	Energy Availability (MU)	Energy Shortage (MU)	Energy Shortage (%)
1997-98	424505	390330	34175	8.1
1998-99	446584	420235	26349	5.9
1999-00	480430	450594	29836	6.2
2000-01	507216	467400	39816	7.8
2001-02	522537	483350	39187	7.5
2002-03	545983	497890	48093	8.8
2003-04	559264	519398	39866	7.1
2004-05	591373	548115	43258	7.3
2005-06	631554	578819	52735	8.4
2006-07	690587	624495	66092	9.6
2007-08	737052	664660	72392	9.8
2008-09	777039	691038	86001	11.1
2009-10*	688171	620003	68168	9.9

Source: Power: the building block of the economy: annual report 2007-08: ministry of power, government of India.  
 MOP: Annual Report 2009-10  
 \*up to January 2010

If we see the above table shortage of the power in India increased year by year. To overcome this problem the government has to take measures to increase the capacity of power generation. It requires huge amount of funds it is not possible by the government, the private investment is required. There are several hurdles for the investment of private sector, to overcome that government has to take the initiatives to create investor friendly environment. To reduce the gap between the power requirement and availability, Government of India planned a series of ambitious power projects known as Ultra Mega Power projects (UMPP), each with a capacity of 4000 megawatts or above. As of July 2009, 14 UMPPs have been planned. Of the four UMPPs awarded earlier, Reliance Power bagged three at Sasan in Madhya Pradesh, Krishnapatnam in Andhra Pradesh and Tilaiya in Jharkhand. Tata Power has been awarded the Mundra UMPP in Gujarat. It may be observed that all the four projects went to private developers. However the capacity addition of private sector is not up to the expected level. We can observe this from the table given below.

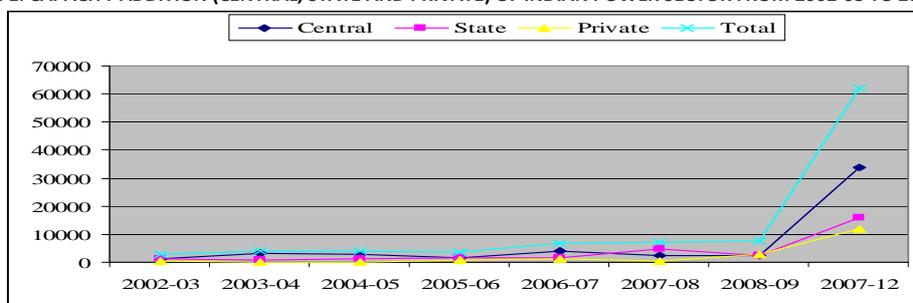
**TABLE 9: TOTAL CAPACITY ADDITION (CENTRAL, STATE AND PRIVATE) OF INDIAN POWER SECTOR FROM 2002-03 TO 2012 (MW)**

Years	Central	State	Private	Total
2002-03	1210	1100.10	548.00	2858.10
2003-04	3035	816.62	100.00	3951.62
2004-05	2710	1168.92	70.00	3948.92
2005-06	1420	1488	660.8	3568.8
2006-07	3890	1671	1291.8	6852.8
2007-08	2230	4783	250	7263
2008-09	2410	2359.2	2761	7530.2
2007-2012	34000	16000	12000	62000

Source: Power: the building block of the economy: annual report 2007-08: ministry of power, government of India.  
 MOP: Annual Report 2009-10

The trend of capacity addition by central, state and private sectors given in the above tables has been shown in the graph figure.

**FIGURE 1: CAPACITY ADDITION (CENTRAL, STATE AND PRIVATE) OF INDIAN POWER SECTOR FROM 2002-03 TO 2012 (MW)**



### OPPORTUNITIES AND CHALLENGES OF INVESTMENT IN INDIAN POWER SECTOR

1. Over 90,000 MW of new generation capacity is required in the next seven years, a corresponding investment is required in transmission and distribution networks.
2. Large demand-supply gap: All India average energy shortfall of 7% and peak demand shortfall of 12%.
3. The implementation of key reforms is likely to foster growth in all segments:
  - Unbundling of vertically integrated SEB's
  - "Open Access" to transmission and distribution network
  - Distribution circles to be privatized
  - Tariff reforms by regulatory authorities
4. Opportunities in Generation for: Coal based plants at pithead or coastal location (imported coal) Natural Gas/CNG based turbines at load centers or near gas terminals
5. Hydro power potential of 150,000 MW is untapped as assessed by the Government of India, Renovation, modernization, up-rating and life extension of old thermal and hydro power plants.
6. Opportunities in Transmission network ventures - additional 60,000 circuit km of transmission network expected by 2012, Total investment opportunity of about US\$ 200 billion over a seven year horizon
7. 100% FDI permitted in Generation, Transmission & Distribution - the Government is keen to draw private investment into the sector. Incentives: Income tax holiday for a block of 10 years in the first 15 years of operation; waiver of capital goods import duties on mega power projects (above 1,000 MW generation capacity)

India possesses a vast opportunity to grow in the field of power generation, transmission, and distribution. The target of over 150,000 MW of hydro- power generation is a main challenge to the Indian power sector. By the year 2012, India requires an additional 100,000 MW of generation capacity. There is still a peak demand shortage of around 14.8% and an energy deficit of 8.4% in the country. A huge capital investment is required to meet this target. This has invited number of power generation, transmission, and distribution companies across the globe to establish their operations in the country under PPP programmes. There are great opportunities in transmission network ventures, an additional 60,000 circuit kilometers of transmission network is expected by 2012 with a total investment opportunity of about US\$ 200 billion ([www.pppinindia.com/sector-power.asp](http://www.pppinindia.com/sector-power.asp)). Ministry of Power has envisaged the establishment of an integrated National Power Grid in the country by the year 2012 with an inter-regional power transfer capacity of about 37,700 MW. Rural electrification is major challenge for the government. In 1947, only 1500 villages were electrified in India making it 100 percent is a major challenge. Another challenge is providing 90% capital subsidy to rural electrification infrastructure by the government. It require large amount of funds which is not available to the government. The gap between investment requirement and the historical investment profile presents a larger financial deficit in the power sector.

### INVESTMENT IN INDIAN POWER SECTOR

The investment in infrastructure during the tenth plan was Rs 8, 87,794 crore which constituted 5.07 percent of GDP. This included Rs 1, 75,203 crore of investment by the private sector. The first major step towards encouraging private investment in the Power sector was taken in 1991 by providing a legal framework through an amendment of the existing Electricity (Supply) Act, Automatic approval (RBI route) for 100% foreign equity is permitted in generation, transmission, distribution and trading in power sector without any upper ceiling on the quantum of investment. The investment achieved in Indian power sector in eighth plan was Rs616750 million, the target for 9<sup>th</sup>(1997-02) plan was Rs 1245260 million, achieved amount is Rs 575760 million. The expert committee estimation for 1996-2001 is Rs 2464000 and for 2001-2006 is Rs 3780000. (R.Karker, P.Mukhopadhyah.M.Kabra.A.Garg 2001) Investment requirement during 11th plan (2007-12) \$50 billion, another \$ 50 billion for transmission, distribution and rural electrification (Canning & Pedroni, 2004; Calderon & Servén, 2004). The total details about the investment of centre, state and private sectors are given in the table below.

**TABLE 10: PUBLIC AND PRIVATE INVESTMENT IN ELECTRICITY IN INDIA DURING THE PERIOD 2002-03 TO 2009-10 (Rs crores)**

Year	Centre	State	Private	Total
2002-03	14219	20467	12926	47612
2003-04	17336	20566	15583	53485
2004-05	19708	18819	18428	56956
2005-06	22867	18329	21017	62268
2006-07	28332	19372	23825	71529
2007-08	29,386	27,252	54,497	1,11,134
2008-09	36,769	30,109	50,215	1,17,093
2009-10	39,528	31,193	55,237	1,25,958

Source: GOI, ministry of power 2010

If we see the above table the investment by public and private sectors increased year by year from the beginning of tenth five year plan to the current year. However there is a large gap between the requirement of funds and the availability of funds. The table below indicates the requirement of investment for Indian Electricity Sector during the period 2001-30 (IEA: 2003 a).

**TABLE 11: TOTAL INVESTMENT FOR INDIAN ELECTRICITY SECTOR DURING THE PERIOD 2001-30(USD BILLION)**

	2001-10	2011-20	2021-30	2001-30
Generation	69	83	116	268
Refurbishment	4	5	6	15
Transmission	29	39	51	119
Distribution	44	85	134	262
Total	146	212	307	664

Source: IEA (2003a)

The Indian power sector has not been able to attract substantial private investment, in proportion to its requirements, due to its inadequate legal and commercial framework, and delays in obtaining regulatory approvals (IEA, 2003a). The Government of India has taken initiatives to launch, Accelerated Power Development & Reform Programme (APDRP) in 2001. The scheme has two components: a) Investment component – Government of India provides Additional Central Assistance for strengthening and up gradation of sub-transmission and distribution network. 25% of the project cost is provided as additional central plan assistance in form of grant to the state utilities. To begin with the Govt. also provided loan to the tune of 25% of the project cost. Another important thing is, Unfavorable conditions in the international capital market reduced the ability of the investors to raise capital for new investments (*Lamech & Saeed, 2003*).

Exclusively to finance for power sector projects the Indian government incorporated some financing corporations. The Power Finance Corporation Limited (PFC) was incorporated in 1986 as a Development Financial Institution (DFI) dedicated to Power Sector. The main objectives to be pursued by PFC are: to Finance Power Projects, in particular, Thermal and Hydro Projects, Power Transmission & Distribution works, Renovation & Modernization of power plants etc. PFC's Performance (cumulative) during last two decades (since inception) as on 30th Nov 2007 the amount sanctioned was Rs.1, 56,322 crore, Disbursement Rs. 83,928 crore. As on 30<sup>th</sup> Nov, 2007, PFC had sanctioned loans of the order of Rs. 36,363 crore (during FY 2007-08) for a wide range of power projects in various parts of the country and disbursements were to the tune of Rs. 8,074 crore. Rural Electrification Corporation Limited (REC) was incorporated as a Company under the Companies Act, 1956 in the year 1969 with the main objective of financing rural electrification schemes in the country.

TABLE12: LOAN SANCTIONS AND DISBURSEMENT OF RURAL ELECTRIFICATION CORPORATION LIMITED (REC) (Rs in crore)

	2002-03	2003-04	2004-05	2005-06	2006-07
Loan sanctioned	12125	15978	16316	18771	32925
Loan Disbursed	6607	6017	7885	8007	13733

Source: Ministry of power GOI annual report 2007-08:

Persistent power shortages, inadequate public investment and the economic crisis faced by India in the early 1990s led to the opening up of the power sector to private investment and major policy initiatives were undertaken to encourage private and foreign investment. The power sector offers a wide scope for private investment through change of ownership of existing assets or Greenfield investment in generation, transmission or distribution assets. The privatization of the power sector is encouraged firstly to mobilize the needed financial and managerial resources, secondly, to improve the efficiency of services to the users (*Jyoti P Gupta and Anil K Sravast1998*). The Private Power Policy formulated in 1991 opened up the path to private and foreign investment in the generation and distribution of electricity. Private investors were offered a 16% return on equity, which was further incentivised in the case of higher efficiency levels in terms of plant load factor (PLF). The policy framework for private investment was further strengthened through the introduction of the Mega Power Policy in 1995 for thermal projects over 1000 MW and hydro projects over 500 MW. The privatization of developed countries is driven by the need to become competitive and provide greater choices to customers, in developing countries the need is funds for expansion and access to technology (*Rekha Jain*). The Indian Electricity Sector has gone through a lot of metamorphosis. The three major acts concerning the electricity sector were the Indian Electricity Act, 1910, the Electricity (Supply) Act, 1948 and the Electricity Regulatory Commissions Act, 1998. The Electricity Act 2003, enacted by the Parliament of India. The main basic features of the Electricity Act 2003 are: private transmission licensees, Distribution licensees would be free to undertake generation, transmission at the central and state level. Generation is being delicensed and captive generation is freely permitted. This leads to the involvement of private sector into the power projects to increase the investment.

The central government's liberalization of investment in the power sector had created competition among states to provide better incentives for attracting private investment. Some states have managed to maintain a sustainable investment environment for the investors. This has kept the investors' interest alive in the power sector in more hospitable states. Investors' choice of a particular state is influenced, among others, by the relative investment climate in the state, the growth potential, the financial status of the buyer utility and the available risk mitigation options. The Planning Commission has noted that a similar financial package for the privatization of Discoms in other states would require support of Rs.1 trillion (*GOI, 2005b*).

## COMPARATIVE ANALYSIS OF INVESTMENTS IN INDIAN AND CANADIAN POWER SECTORS

### FINDINGS

1. Canadian government is providing power generation incentive to stimulate the installation of new projects. Out of the total investments of public and private electric utilities in Canada in 2007, public utilities accounted for 60.53 per cent, while private utilities accounted for 39.47 per cent. The financing methods used to finance the projects are PPP's, including asset sale, contracting out, deregulation, build/operate/transfer (BOT), BOO, BOLT etc. and also public finance initiative, equity participation, Borrowing from institutional financiers, Public bond issue with redemption option, Leasing of infrastructure structured financing, loans from Multilateral Financing Agencies (MLA's) non- recourse financing, limited recourse financing SPV, GPV, FG etc.
2. The core infrastructure sector grew by 4.8% during the first quarter of 2009-10 as compared with 3.5% growth during the corresponding quarter of the previous year, led by considerable growth in electricity by 5.7% as against 2% last year. The industrial sector currently accounts for **26.7percent** of India's GDP (at factor cost) in 2007-08.in this industrial output infrastructure accounts for 60 percent i.e. **16.02** percent.
3. The Canadian government incorporated "clean fund" exclusively to provide finance to power sector, the government also encouraged the organizations to adopt research to develop innovative technology through which they can reduce the production cost. For this the required capital is provided by the government.
4. In Canada the government intervention is high with low price caps. It can reduce investment from the private sector and also destroy the integrity of the market.
5. The Canadian power projects are unable to get sufficient debt funds, because of high interest rates of banks. It leads to poor installation of projects and less generation of power, due to this the overall performance of the sector will decline. So the government has to take the required measures to provide the loans at an affordable rate of interest.
6. One of the major challenges faced by Canadian power sector is lack of optimum level of reliability and enhancing system reliability. To address this challenge they have to develop the innovative technology by investing sufficient amount of funds.

7. Setting electricity prices is another challenge for Canadian power sector which is governed by generation cost, transmission cost and distribution cost. Generation costs are reduced by introducing innovative technology similarly Canadians have had to pioneer new transmission technologies such as the world's first 735 kV transmission line, which is state-of-the-art in extra high voltage (EHV) alternating current and high voltage direct current (HVDC). In Canada the prices of electricity set by the companies based on their flexibility. Pricing of electricity is subject to regulatory control in most countries but the way it has operated in India is seriously flawed. Electricity prices charged to consumers are fixed by state governments and have been set very low for certain categories of consumers such as households and agricultural users, and this is one of the major reasons for the poor financial condition of SEBs.
8. In India the generation of power is increasing year after year during the past 10 years but they were unable to achieve the target due to lack of innovative technology and required amount of funds. Government of India planned a series of ambitious power projects known as Ultra Mega Power projects (UMPP), each with a capacity of 4000 megawatts or above. As of July 2009, 14 UMPPs have been planned. Of the four UMPPs awarded earlier, Reliance Power bagged three at Sasan in Madhya Pradesh, Krishnapatnam in Andhra Pradesh and Tilaiya in Jharkhand. Tata Power has been awarded the Mundra UMPP in Gujarat. It may be observed that all the four projects went to private developers.
9. The central government's policy of liberalization of investment in the power sector, created competition among states to provide better incentives for attracting private investment.
10. The Indian government is spending billions of rupees to provide subsidized power and it is providing 90% capital subsidy on rural electrification infrastructure for rural electrification Programme.
11. The geographical distribution of private power projects in the country reveals a preference for the southern and western regions of the country. Investors' choice of a particular state is influenced, among others, by the relative investment climate in the state, the growth potential, the financial status of the buyer utility and the available risk mitigation options.

## CONCLUSIONS

- 1) The growing investment requirement in the power sector places demand on investors' equity capital as well as debt funds. The investments in the sector are highly leveraged and require long-term loans. The longer tenure requirement for lending to the sector also limits availability of funds. The appetite for long-term debt instruments in the domestic market is also limited. The domestic bond market in the country is dominated by government borrowing leaving limited space for the private sector.
- 2) Unfavorable conditions in the international capital market reduced the ability of the investors to raise capital for new investments. These conditions in developing countries along with previous experience of investors in developing countries have been identified as the main reasons for the decline in foreign investors' interest in the power sector in these countries. Private investors respond to risk return tradeoffs. The policy environment and regulatory framework contribute significantly to the investment environment especially in the power sector.
- 3) Both the countries have to focus on reduction of emission of pollution in power generation. They can collaborate on developing CDM, CBM and renewable energy.
- 4) There are common issues for both countries in distribution system such as metering, supply of quality and reliable power etc. Trade associations of both countries can hold conferences and exchange ideas on how to improve distribution system.

## REFERENCES

1. Abhijit Dutta (2007): *"Infrastructure Finance an Indian perspective"*: Maha Maya publishing House New Delhi.
2. Abu Naser Chodhury, Chichi Charoengnam: (2008) *"Factors influencing finance on IPP projects in Asia; A legal frame work to reach the goal"*;
3. *A Compendium of Electric Reliability Frameworks Across Canada* (2004) Her Majesty the Queen in Right of Canada as represented by the National Energy Board 2004
4. *Addressing challenges to electricity infrastructure development*: (2007) brief submitted to the council of energy ministers by the Canadian electricity association
5. Anoop Singh: (2007) *"Policy Environment and Regulatory Reforms for Private and Foreign Investment in Developing Countries: A Case of the Indian Power Sector"* ADB Institute Discussion Paper No. 64
6. Andreas Wibowo, S.M.ASCE, Bernd Kochendörfer: *"Financial Risk Analysis of Project Finance in Indonesian Toll Roads"*: Journal of construction engineering and management © ASCE / September 2005.
7. Calderón, César and Served, Luis (2004), *"The Effects of Infrastructure Development on Growth and Income Distribution"*, Working Papers No. 270, Central Bank of Chile, Huérfanos.
8. *Canada energy statistics hand book: first quarter 2009*, statistics Canada Catalogue no. 57-601-X
9. Canadian Government Funds Eight Private Sector CCS Projects (2009) POWER news
10. Canning, David and Pedroni, Peter (2004), *"The Effect of Infrastructure on Long Run Economic Growth"* JEL Classifications: O1.H4. <http://www.williams.edu/Economics/wp/pedroniinfrastructure.pdf>
11. *Coal-Fired Power Generation: A Perspective* (2008) Her Majesty the Queen in Right of Canada 2008 as represented by the National Energy Board
12. David Jhirad (1990): *"Power sector innovation in developing countries" implementing multifaceted solutions"*: Annu. Rev. Energy 1990. 15:365-98
13. Deepak Parekh (2007): *"the report of the committee on infrastructure financing"* government of India New Delhi.
14. Dr.S. Gurusamy (2005): *"Financial services and System"*: Thompson, Vijay Nicole publications
15. *"Electric Power: A Canadian Specialty the Canadian Electric Power Industry at the Service of the World"* (2001) Her Majesty the Queen in Right of Canada (Industry Canada) 2001
16. *Electric Power Generation, Transmission and Distribution* – (2007) Statistics Canada: Catalogue no. 57-202-X, Published by authority of the Minister responsible for Statistics Canada © Minister of Industry, 2009
17. *Emerging Technologies in Electricity Generation an energy market assessment* (2006): Her Majesty the Queen in Right of Canada as represented by the National Energy Board 2006

18. *Facts on Alberta, living and doing business in Alberta*: (2009) government of Alberta.
  19. Fay, M. and Yepes, T. (2003), *Investing in Infrastructure: What is needed from 2000–2010*, World Bank, Policy Research Working Paper No. 3102, World Bank, Washington, DC.
  20. FICCI (2002), (2003) *FDI Survey 2002, 2003*, Federation of Indian Chambers of Commerce & Industry, New Delhi.
  21. GOI (2005b), *Mid-Term Appraisal of the Tenth Five Year Plan (2002–07)*, Planning Commission, Government of India, New Delhi.
  22. IEA (2003a), *World Energy Investment Outlook*. International Energy Agency, Paris [www.ppi.worldbank.org](http://www.ppi.worldbank.org)
  23. John E. Schaufelberger, M.ASCE, Wipadapisut: *Alternate Financing Strategies for Build-Operate-Transfer Projects*: Journal of construction engineering and management © ASCE / march/April 2003 / 205
  24. John D. Finnerty (2007): *project finance- asset based financial engineering*. John Willey & sons Inc-New York.
  25. Jyoti P Gupta and Anil K Sravat: (1998) *Development and project financing of private power projects in developing countries: a case study of India*:
  26. Montek S. Ahluwalia: *Financing Private Infrastructure: Lessons from India*: <http://planningcommission.gov.in/aboutus/speech/spemsa/msa009.doc>
  27. Mansoor Dailami and Danny Leipziger (1998): *Infrastructure Project Finance and Capital Flows: A New Perspective*: World Development Vol. 26, No. 7, pp. 1283-1298, 1998 © 1998 Published by Elsevier Science Ltd
  28. Natural Resources Canada (NRC). January 4, 2008 // Published as a news service by IHS <http://energy.ihs.com/News/renewable-energy/2008/nrc-wind-energy-010408.htm>
  29. NRC: *Canada Invests \$53M in Wind Energy Project*, January 4, 2008 Published as a news service by HIS: <http://tdworld.com/news/Canada-electricity-sector/>
  30. OECD North American Energy Investment Requirements to 2030 <http://www.canelect.ca/>
  31. *Power: the building block of the economy*: annual report 2007-08: ministry of power, government of India.
  32. *Power generation investment in electricity markets*: (2003) international energy agency.France. [http://www.iea.org/textbase/country/m\\_country.asp?COUNTRY\\_CODE=FR](http://www.iea.org/textbase/country/m_country.asp?COUNTRY_CODE=FR)
  33. RFQ for at least one UMPP soon: Officials Press Trust Of India / Mumbai July 12, 2009, 0:43 IST
  34. Rekha Jain: *Review of policy changes in the Indian Telecom sector*: infrastructure development and financing: Mc millan.
  35. R.Karker, P.Mukhopadhyah.M.Kabra.A.Garg (2001): *Leveraging finances: emerging investment in infrastructure*. TERI, New Delhi.
  36. Simon Maxwell and Mark Robinson (2006): *The Future of Development Partnerships in Asia: Mapping the Agenda to 2015*: Development Policy Review, 2006, 24 (s1): s99-112 Published by Blackwell Publishing, Oxford OX4 2DQ, UK
  37. *The Canadian Council for Public-Private Partnerships* <http://www.pppcouncil.ca/>
  38. Xueqing Zhang, M.ASCE *Financial: Viability Analysis and Capital Structure Optimization in Privatized Public Infrastructure Projects*: Journal of construction engineering and management © ASCE / June 2005
  39. World Bank (2003), *Implementing the World Bank Group Infrastructure Action Plan (with special emphasis on follow-up to the recommendations of the World Panel on financing water infrastructure)*, World Bank, Washington, DC.
  40. Woodhouse, Erik J. (2005a), *The Experience of Independent Power Producers in Developing Countries*, Final Report, Program on Energy and Sustainable Development, Center for Environmental Science and Policy, Stanford University, Stanford,CA.
  41. World Bank (2003), *Implementing the World Bank Group Infrastructure Action Plan (with special emphasis on follow-up to the recommendations of the World Panel on financing water infrastructure)*, World Bank, Washington, DC.
  42. *Wind Vision 2025 Powering Canada's Future* (2008) canwea, Canadian energy association. [www.windtrm.gc.ca/pdfs/windvision\\_summary\\_e.pdf](http://www.windtrm.gc.ca/pdfs/windvision_summary_e.pdf)
  43. Willard price: *Innovation in public finance Implications for the Nation's Infrastructure*: Public works management & policy, vol. 7 no. 1, July 2002 63-78 © 2002 sage publications
- [www.statcan.gc.ca](http://www.statcan.gc.ca)  
<http://energy.ihs.com/News/renewable-energy/2008/nrc-wind-energy-010408.htm>  
<http://www.nrcan.gc.ca/eneene/sources/eleele/abofai-eng.php>  
<http://www.adbi.org/discussionpaper/2007/04/26/2236.policy.environment.power.sector/power.sector.investment.in.developing.countries.requirements.and.prospects>  
<http://socialfinance.ca/blog/2009/06/wind-energy-a-global-investment-opportunity-will-canada-be-a-global-player/>  
[http://www.iea.org/textbase/nppdf/free/2000/powergeneration\\_2003.pdf](http://www.iea.org/textbase/nppdf/free/2000/powergeneration_2003.pdf)  
<http://www.neb-one.gc.ca/clf-nsi/rnrgynfmetn/nrgyrprt/lctrcty/lctrctytrndssscnd2001-eng.pdf>  
<http://tdworld.com/news/Canada-electricity-sector>

## EMERGENCY HEALTHCARE MANAGEMENT IN INDIA: A STUDY OF THE ROLE OF EMERGENCY MANAGEMENT RESEARCH INSTITUTE

NENAVATH SREENU

RESEARCH SCHOLAR, SCHOOL OF MANAGEMENT STUDIES

UNIVERSITY OF HYDERABAD – 500 046

HYDERABAD

### ABSTRACT

*The value chain of healthcare system comprises of three major components viz. pre-hospital care, definite healthcare (hospital care) and rehabilitation. Each component is important in order to provide a secure and strong healthcare environment. In most developing countries the pre-hospital care, especially in case of emergency, is the weakest link in the value chain and needs huge investment to make the public healthcare system more robust, to ensure better health outcomes. In 2005, Emergency Management and Research Institute (EMRI) started working in Andhra Pradesh with the vision of responding to 30 million emergencies per annum in PPP framework as a nodal agency and to save one million lives per annum. EMRI (Emergency Management and Research Institute) is a pioneer in Emergency Management Services in India. As a not - for - profit professional organization operating in the Public Private Partnership (PPP) mode, EMRI is the only professional Emergency Service Provider in India today. Since the study examines the strategies deployed by EMRI, in uplifting life expectancy in Andhra Pradesh. Since EMRI provide the emergency response services along with quality pre-hospital care; the study examines the role of EMRI as an effective and efficient Emergency Management Service provider in improvement of the public healthcare delivery system in A.P., Gujarat and Rajasthan. The study provides an in depth analysis of a model comprising structure, system and processes of organization for providing emergency medical service through PPP mode. The outcome of the study will help developing countries to adopt the model successfully in their countries*

### KEYWORDS

Healthcare, Emergency, hospital, EMRI.

### INTRODUCTION

Emergency Management is a relatively new discipline, with a broad Scope. It evolved from more narrowly defined disciplines such as Civil Defense. One of the earliest texts to describe emergency management concepts in detail succinctly summarized its purpose in the following Statement, "The goal of emergency management is the rapid restoration of Normal routines." Emergency Management and Research Institute (EMRI) provides a comprehensive emergency management service in the state of Andhra Pradesh, Gujarat, Uttarakhand, Goa, Chennai and Rajasthan, Karnataka and Assam using a single, toll-free number (108). The number 108 is used as the centralized helpline for Medical, Police and Fire emergencies. At EMRI, world class technology is at work to give the quickest response to any distress call. Supported by the latest technology in distress communication and management, EMRI extends quick and effective relief to any medical, police or fire emergency situation involving individuals. Emergency Management Services in India. is not - for - profit professional organization, Operating by the Public Private Partnership (PPP) mode, EMRI is the only professional Emergency Service Provider in India today. EMRI handles medical, police and fire emergencies through the "1-0-8 Emergency service". This is a free service delivered through state- of -art emergency call response centres and has over 1418 ambulances across Andhra Pradesh, Gujarat and Uttarakhand. With the expansion of fleet and services set to spread across more states, EMRI will have more than 10000 ambulances covering over a billion population and one lakh employees by 2010. With increased focus on research and analytics, EMRI has plans to significantly enhance the overall emergency management scenario - further reducing individual suffering. 1-0-8 Emergency Response Service is 24x7 emergency service for medical and police emergencies. The government of India is working on a proposal to have Hyderabad-based Emergency Management Research Institute (EMRI) as a nodal agency for providing police, medical emergency services at the national level. EMRI which is operating emergency response services under public-private partnership in Andhra Pradesh and Gujarat has signed MoUs with the state governments of Tamil Nadu, Madhya Pradesh and Uttarakhand and hopes to cover remaining states by 2010. It will soon sign MoUs with Rajasthan, Goa, Kerala, Jammu and Kashmir, Assam and Maharashtra The centralized emergency response centre in each state would receive calls 24x7 through the toll-free telephone number —108. EMRI has the technological backup of Satyam computers, ambulances equipped with life-saving appliances and medicines and trained personnel to attend to the cases, government said of the capital investment and operating expenses, 95 per cent would be borne by the state governments and the rest by EMRI. A timely response and care is essential in saving lives and property of citizens in emergencies and the role of the Government are equally crucial in providing relief through its agencies such as police, medical and other government departments. The proactive Government of Andhra Pradesh has acknowledged the significance of their role and also importance of working in partnership with private agencies such as EMS providers and other service providers such as hospitals, blood banks, ambulances, telecom service providers and donors (individual, body Corporates or non-government organizations). To take this concept further, the various state Governments like Andhra Pradesh, Gujarat, Uttarakhand, Rajasthan, Goa, Tamil Nadu, Karnataka, Assam and Meghalaya has committed to assist EMRI in regulatory aspects, Chanelizing funds, leveraging infrastructure, promoting public awareness. 108 Emergency services of EMRI to the needy are laudable. More than 4,500 people across the state are utilizing 108 ambulance services daily. With the fleet of 652 ambulances, A.P now gets one Ambulance for every Two Mandals. More awareness be created among the people in a way that masses from nook and corner of the state can utilize the services. Offered by Government of Andhra Pradesh. Rajiv Arogyasree, 104 Mobile Hospital Services, 108 Emergency Services are unique programmes fulfilling the health related needs of people of A.P. With the efficient services provided by EMRI, 108 ambulance in rural areas reaching in 20 Minutes. Government of Andhra Pradesh is bearing 95% of total expenditure of 108 emergency services, The Emergency Management and Research Institute (EMRI) and Public Health Foundation of India (PHFI) entered into a memorandum of understanding to work together for strengthening training, research and policy development in the area of public health and emergency management. According to the MoU, EMRI and PHFI will strive together to maintain an ongoing forum for discussion, training, research and

other joint activities related to the aspects of prevention, injury care and emergency medical services. The two organisations will also try to establish opportunities, including fellowships and internships, in relevant areas of public health. Like EMRI, PHFI also works in public-private partnership. It is currently working towards building public health capacity in India by establishing 8-9 new institutes of public health over the next six years.

### DEFINITION OF THE “EMERGENCY”

The defining characteristic of an emergency event or situation is that usual resources are overwhelmed or have the potential to be overwhelmed. For example, a car crash with casualties is likely to be labelled an incident (business as usual) for many hospitals but a major emergency for an accident and emergency medical centre. Likewise, an outbreak of influenza is a normal winter occurrence, but a pandemic (an influenza outbreak on a larger scale) is a major emergency.

### VISION OF THE EMRI

To provide free emergency response services for Medical, Police and Fire emergencies across India by 2011 in PPP (Public Private Partnership) framework.

To respond to 30 million emergencies and save 1 million lives annually by 2011

To deliver services at global standards through Leadership, Innovation, Research & Training and Technology To be recognized as best-in-class and become 1 Of 8 wonders of the World

#### 1. EMRI IN ANDHRA PRADESH

EMRI began operations in Andhra Pradesh (AP) on August 15th, 2005 with a fleet of 30

Ambulances, across 50 towns of the state. The Call Centre for its operations, The GIS based software for providing the back-end support from the Call Centre is developed by Satyam and maintained by EMRI, though for updating it, Satyam's support is needed. It was responsible for handling medical, police and fire emergencies through the 108 Emergency Service. Making a total of 70 ambulances run by EMRI on its own. In the third year of operations (2007-08) EMRI expanded the ERS to the entire state of Andhra Pradesh in PPP mode, with the Government of AP contributing additional 432 ambulances, bringing the total ambulances in operations to 502. As on February 15th 2009, EMRI in AP has a fleet of 652 ambulances operating in all 23 districts in the state. Going by the EMRI's criteria of having one ambulance per one lakh population, they should be having 815 ambulances (population of AP is 8.15 crores). Further the government proposed to expand the EMRI fleet to 902 ambulances in 2009-10 and then to 1107 ambulances in the next year, which is calculated on the basis of one ambulance per Mandal. The government is contributing 95% of the operating cost. The rest of the capital costs however are borne by EMRI- an arrangement that differs from that of all other states. These capital costs include the cost of the Call Center, the costs of the administrative and training infrastructure, leadership cost (includes salaries of senior managers), and the technology development costs. The Govt. of AP share of the cost is charged under the NRHM. The emergency transportation provided in a state-of-the-art ambulance is, free, coordinated by a state-of-art emergency call response centre, According to the EMRI data of daily ambulance operations in the state, the service in AP operating with a fleet of 652 ambulances covering 23 districts, and the call centre receives around 54,000 calls in a day. Of these, ambulances are despatched for around 8% calls, on an average. EMRI has tie ups with 3331 private hospitals in Andhra Pradesh, apart from the government hospitals that can handle emergencies. These hospitals provide free stabilization services for the first 24 hours to the patient. As per the same data sheet, around one-fifth (21%) of the emergencies transported are delivery related complications, and around the same proportion are injury related emergencies. EMRI reports around 65% of the emergency cases being transported to government hospitals. The ambulances have been designed with a uniquely Indian perspective.

#### 2. EMRI IN GUJARAT

EMRI began operations in Gujarat with the signing of the MOU with Government of Gujarat and launching of operations on August 29, 2007 with a fleet of 61 (20 ALS and 41 BLS) ambulances across 42 towns (in 9 districts) of the state. The capital cost for purchase and equipping the ambulances as well as for land and building of the call centre, was provided by the Govt. of Gujarat (GoG) under NRHM. Under the MOU the GIS based software for providing the back-end support from the Call Centre was to be commissioned and maintained by EMRI. EMRI was responsible for handling medical, police and fire emergencies through the 108 Emergency Service. In the subsequent year 2008, the operations were extended to the entire state with 380 (33 Advance Life Support and 347 Basic Life Support) ambulances across 319 cities in all the 26 districts<sup>14</sup>. The Govt. of Gujarat is contributing 95% of the operating cost and 100% of the capital cost (of ambulance purchase, fittings, land and building for the state level Call Centre). The Govt. of Gujarat's share of the cost is charged under the NRHM. The emergency transportation in the form of a state-of-the-art ambulance is provided free, coordinated by a state-of-art Emergency call response centre, which is operational 24 hours a day, 7 days a week. In Addition, the call to the number 108 is a Toll Free service accessible from landline or mobile. The features of the ambulance and the organisation of the service is the same as described for Andhra Pradesh. According to the daily ambulance wise reports received from EMRI by the GoG, the service in Gujarat operating with a fleet of 61 ambulances in 2007 averaged a little over one (1.44) trip per ambulance per day, which increased to over four (4.31) trips per ambulance per day in 2008, with a fleet of 380 ambulances. Also, as per the daily report of Dec 31, 2008, ambulances were despatched in the case of 8.24% of all the calls received since the operations began in Gujarat. Of these despatches, Medical Emergencies were almost 99%, Police emergencies were 1% and 0.2% were fire emergencies. Looking at the breakup of medical emergencies, 33.7% were pregnancy related, 17.4% were accident/trauma cases, 5.8% were other trauma cases and 1.96% was assault related injuries. The Gujarat government also has various PPP schemes (like Chiranjivi, Bal Sakha yojana, RSBY), which ensures cashless hospitalisation care and treatment for the patients, especially BPL, brought in by the EMRI ambulances, The ambulances are procured from Force Motors, complete with fittings as per the standards prescribed by EMRI. As per the MOU signed between GoG and EMRI, the procurement of these ambulances is done by EMRI with funds from the GoG (@ Rs. 15.75 lakhs for ALS and Rs. 9.75 lakhs for BLS ambulances). Analysing the audited expenses statements of EMRI Gujarat for 2007-08 and 2008-09, we find that the expenditure was Rs.28.27 lakhs per ambulance in the 1st year (for 60 ambulances), which came down to Rs. 11.18 lakhs per ambulance for the full fleet of 380 ambulances in the second year. Similarly, the operating expenses per trip were Rs. 2,871.72 in the 1st year (i.e. Rs. 11.37 lakhs per ambulance for the 9-month period, with 60 ambulances), which came down to Rs. 634.85 per trip in the 2nd year (i.e. Rs. 3.34 lakhs. per ambulance for the 6-month period). The audited statements also reveal that the share of EMRI's own funds in the total operating expenses were to the tune of 25% in the 1st year which came down to 5% in the 2nd year of operations in Gujarat. It was later clarified that even these are notional book entries- in

effect the EMRI's share in Gujarat is nil and thus EMRI has been functioning as fully government paid scheme. Looking at the break-up of operating cost, we find that in Gujarat, salary consumes 42% of the opex, administrative expenses are 27% and cost of running the ambulances is only 31% of the opex. Gujarat has relatively low proportion of administrative costs as according to EMRI, the Gujarat operations has yet to undertake the full investment in terms of the supporting infrastructure and staff needed to run the number of ambulances that is operational. For example, whereas the operational staff to ambulance ratio is around 7 for both AP and Rajasthan, it is 5 for Gujarat. The state of Gujarat has also undertaken a unique initiative regarding the Emergency Medical Services (EMS) in the state. In order to provide a legal and regulatory framework for a comprehensive EMS, the Govt. of Gujarat enacted the Gujarat EMS Act, which came into force on February 2007. The EMS Act provided the framework to the GoG under which it went ahead with the MOU with EMRI.

### 3. EMRI IN RAJASTHAN

EMRI began operations in Rajasthan with the signing of a 5-year MOU with Government of Rajasthan and launching of operations in September, 21 2008. As of February 2009, EMRI Rajasthan has a fleet of 100 ambulances across 58 towns (in 33 districts) of the state. The state plans to have a total fleet of 450 ambulances in the state with EMRI. The capital cost for purchase and equipping the ambulances as well as for land and building of the call centre, was provided by the Govt. of Rajasthan (GoR) under NRHM. Under the MOU the GIS based software for providing the back-end support from the Call Centre was to be commissioned and maintained by EMRI. The Govt. of Rajasthan is supposed to contribute 95% of the operating cost and 100% of the capital cost (of ambulance purchase, fittings, land and building for the state level Call Centre, etc.). The Govt. of Rajasthan's share of the cost is charged under the NRHM. The emergency transportation provided in a state-of-the-art ambulance is free, coordinated by a state-of-art emergency call response centre, which is operational 24 hours

A day, 7 days a week. In addition, the call to the number 108 is a Toll Free service accessible from landline or mobile. According to the GoR data, the service in Rajasthan operating with a fleet of 100 ambulances in 2008-09 averaged about two (1.1423) trips per ambulance per day, traveling a distance of around 16 km per day per ambulance, meaning the ambulances are averaging a little less than 15 km per trip. As the operations began with 50 ambulances initially and the other 50 were added to the fleet around Nov-Dec 2008, the later 50 ambulances are averaging less than one trip per day (till Feb '09). Also, as per the data provided by EMRI and the GoR for 2008-0924, ambulances were despatched in the case of 1.21% of all the calls received. Medical Emergencies were 78% of all the cases transported, of which 20% were pregnancy related and almost 40% were trauma cases. For the month of February 2009 (till 18th Feb), the corresponding figures showed that 1.46% of calls required despatches. Of these, 82% were medical emergencies and 18% were police calls. Of the medical emergencies, 42% were trauma related, of which 38% were RTA (Road Traffic Accidents) and 25% were pregnancy related, while 21% fell into "others" category. The ambulances are procured from TATA Motors, complete with fittings as per the standards prescribed by EMRI. The procurement of these ambulances is done by EMRI with funds from the GoR, projected (as per the MOU) at an average capital cost of Rs. 24 lacs per ambulance, including cost of IT and call-centre infrastructure. Similarly, the opex was projected in the MOU to be around Rs. 11.47 lacs per ambulance per year. Analysing the audited balance sheet and expenses statements of EMRI Rajasthan for 2008 (till Dec '08), we find that the expenditure was Rs. 34.06 lacs per ambulance (for 100 ambulances in the 1st year). Similarly, the operating expenses per ambulance were Rs. 11.96 lacs. Looking at the actual number of trips and kilometres travelled by the ambulances (adjusted on pro-rata basis till Dec '08) the operating cost turns out to be Rs. 2,700/- per trip. The audited statements also reveal that the share of NRHM's funds in the Total cost (were in the tune of 98% in the year 2008. It also shows that capital cost is 73% of the total cost (this being the 1st year of operations). Looking at the break-up of operating cost, we find that in Rajasthan, salary (of operations staff) consumes 47% of the, administrative expenses are 38% and cost of running the ambulances is only 15%. This clearly hints at low usage of the vehicles.

#### Literature review

Dr. Mukul K. Saxena: this article explore about the challenges in emergency management research, Emergency management is a response to a situation which may rightly be termed as 'predictable surprise' which by the very virtue of its nature is unpredictable to the victim, life threatening and largely due to circumstances beyond his control, but contradictory though it may sound, can be predicted by research methodologies. In a large majority of cases, the victim may not be in a position to seek medical treatment. In a number of cases, especially road traffic accidents even the by standers may be reluctant to take the victim to a medical facility due to medico legal issues, leading to lives lost that can potentially be saved. Evolution of emergency management services is still in its nascent stage. USA made a beginning in 1968 through 911 services. California passed its EMSS act as late as 1973. China, the most populous country introduced EMS in 1980, with a predominant urban focus. The 'Rescue centers' provide both ambulance and inpatient care. Madagascar with a population of 15 million has again an EMS with urban bias. Japan has an EMS run by fire defence headquarters and is basically a single tiered system. India, the largest democracy, and the second most populous country in the world had its first comprehensive emergency medical services rolling out in 2005, with the advent of Emergency Management & Research Institute (EMRI). The present challenges relate to systems design, uniform evaluations of emergencies and comparing outcomes. Unfortunately, most published research in EMS is component based, focusing on a single intervention or health problem and rarely addressing the inherent complexities of EMS systems; the emergency services do not have the existing research backup so essential to any research field. There is hardly any academic research institution with long term commitment to EMS research. Most of the institutions which do carry out research on EM subjects pertain to the Emergency room admissions and ICU interventions. This is a challenge that EMRI seeks to address. Research in EMS through prospective studies is burdened by restrictive interpretations of informed consent. The ethical issues get more challenging in scenarios that are bound to unfold when EM services are likely to increase their activities covering larger populations and areas where the increased load on emergency services shall lead to triage protocols. Research on pre-hospital interventions also needs to be sensitive to such challenge. The most important challenge stems from the application of basic ethical principles to research in emergency medicine setting involved in resuscitation in vulnerable population. A recent Academic Emergency Medicine Consensus Conference on "Ethical conduct of Resuscitation Research" addressed the term applicability of term vulnerable, relationship between vulnerability, exploitability and capacity significance of vulnerability in Research designs, adaptation of informed consent process to emergency setting, and role of institutional review board. One of the consensus recommendations that emerged from the discussion was the endorsement of the idea that research using EFIC (Exception from informed Consent) is as important in vulnerable population as in the general populations and that the systematic exclusion of vulnerable populations from resuscitation research is inappropriate. National EMS Research agenda has identified barriers to research as primary and secondary. The Primary barriers include paucity of trained researchers with interest in EMS Research and paucity of funding. Secondary barriers include recognizing the need for EMS Research.

Dr. Biranchi N. Jena: this article explain about the Impact of EMRI Services on the Public Healthcare System Delivery. India has relatively poor health outcomes, despite having a well developed administrative system, good technical skills in many fields, and an extensive network of

public health institutions for research, training, and diagnostics. This suggests that the health system may be mis-directing its efforts, or alternatively be poorly designed. If statistics on the burden of diseases are observed, the deaths and DALYs (Disability Adjusted Life Years) arising out of chronic disease and injuries are increasing significantly in developing countries like India. Emergency Medical Systems address a diverse set of diseases that span the spectrum of communicable infections, non-communicable conditions, it is important to study the role of EMRI as an effective and efficient Emergency Management Services in improvement of the public healthcare system delivery. Primary care services include expanded health maintenance activities and treatment at the primary care level, as well as coordination of access to specialty services as required. In the case of medical emergency, prehospital care is the primary care and the outcome results are highly dependent on the quality of prehospital care.

However, in most of the developing countries including India, pre-hospital care is the weakest link in the value chain and many health professionals are of the view that huge investment in this component would not procure the desired results in the healthcare system. In this context, it is true that pre-hospital care is often misunderstood by taking into account only the ambulance. However, the integrated part of pre-hospital care in the emergency like sensing the emergency and making the ambulance reach the victim within a specified time are among the most important and requires high levels of operational excellence. Pre-hospital care in a case of emergency is therefore effective and efficient if supported by better understanding the emergency (sense) and quicker response (reach). EMRI has been successful in proving that pre-hospital care is critical not only in terms of quality of intervention in the ambulance but also in ensuring better sensing and quick reaching through high-end technology. After three years of operation in Andhra Pradesh, EMRI has given a big thrust to the pre-hospital care and there is a sea change in the community perception regarding pre-hospital care. In the process, it seems that pre-hospital care is becoming the strongest link in the value chain of healthcare system. Because of quality medical intervention in pre-hospital care, the victims' expectation from the community healthcare system has gone up significantly. The health system especially in the rural set up like Primary Health Centres (PHCs) and Community Health Centres (CHCs) are now geared up to provide better healthcare to the community. Thus, EMRI has enabled the community to generate the demand for healthcare which would further help the state to efficiently equate the demand and supply of health care needs at a community level. It has been evident that EMRI has enabled the overall health system to increase the healthcare facility utilization in Andhra Pradesh by ensuring the access to efficient and effective pre-hospital transport with adequate care. Due to EMRI intervention, the whole health system in the country is getting strengthened and able to provide healthcare with more probability of success in terms of life saved. As a result of this, the macro-health indicators

### COSTING OF EMRI SERVICES

**Capital Costs:** These work out to approximately Rs 11 lakhs per ambulance. In all the three projects the costs are high in the first year. It was Rs 21 lakhs per ambulance in Andhra, Rs 28.27 lakhs in Gujarat and Rs 34.06 lakhs in Rajasthan. This higher first year cost is because the costs of building, administration office, software, call center costs that are incurred in the first year, when all ambulances are not in place. By the second year, these costs do not rise further but the number of ambulances increases. The increasing first year capital cost across the three states represents rising non-ambulance capital costs as compared to the lower costs of procuring and fitting ambulances. The study does not have the information needed to comment on whether more economies could have been made on these capital costs, or whether these are optimal costs. However, clearly the project is itself in a learning curve as the rates being negotiated for each ambulance is improving. On the other hand the merits of the rising costs of building and the requirements of so much land are not clear. It has been argued by administrators that the space required for a call center operation with some administration space would have sufficed. EMRI's position is that some 120,000 sq ft of built up area is required for administration, call center and training space. Any additional area though desirable for developing the place with gardens and so on, is not essential. The operating cost per trip is also varying across states and over the years. Thus for the year 2008, in Andhra Pradesh it is Rs 565, in Gujarat it is Rs 635 and in Rajasthan it is about Rs 2700. Rajasthan's higher costs could be explained as higher first year costs, as the Gujarat EMRI also had a cost of Rs. 2872 per trip, in the first year. It obviously takes time for the news to get around, and the demands for services to emerge. However, it is also seen that after a point rising demand or increased number of ambulances does not lead to same rate of decline in costs per trip. Thus in Gujarat, with an average of 4.31 trips per day and 402 ambulances, it costs Rs. 635 per trip while Andhra Pradesh with 652 ambulances and 8.1 trips per ambulance, it costs Rs 565 per trip – for almost the same average distance of 29 to 30 km per trip.

Cost per ambulance per year, in contrast to cost per ambulance per trip, continues to rise with number of years of utilization and increased frequency of use. There are also wide variances across states. Thus, it is Rs 6.68 lakhs per year in Gujarat at an average of 4.31 trips, but it rises to Rs 12.59 lakhs per year in Andhra Pradesh with double the average number of trips per ambulance of 8. As utilization increases and the more trips each ambulance makes, the higher these costs would be. Today Andhra is reaching 8 trips per ambulance per day with one ambulance per 1.23 lakh population at Rs 565 per ambulance trip or Rs 16.5 lakhs per ambulance per year and for 652 ambulances the current year's expenditure is 107 crores. If this were to increase to two ambulances per one lakh population, i.e. 1600 ambulances for the state and 11 trips per day per ambulance and also assume that average cost per trip were to stabilise at a lower Rs 475 per trip (estimate on optimum efficiency) then the costs would plateau at about Rs 305 crores at current rates and without adjusting for the increased costs of low population density in high dispersion areas. Thus in Andhra Pradesh, in the third year of operation, when 30% of all emergencies are estimated as being picked up by the ERS, the expenditure on ERS is currently about Rs 13.4 crores spent per crore of population per year. This could rise and finally plateau at about Rs 38 crores expenditure per crore of population per year for the provision of universal ERS. In Rajasthan however the per ambulance per year costs are very high (Rs 12 crores), even at very low utilisation, because the salary costs and the administrative costs make up the major part of the costs. Even in Gujarat, the first year of use had the same pattern. The break-up of costs also shows varying patterns that needs further explanation. Thus, in Andhra Pradesh the administrative overheads costs are 31.37% of the total operating cost, and the direct cost of running and maintaining the ambulances are 41.33% of the operating cost. The remainder of 27.30% is made up of salaries of the service providers (EMT, ambulance driver and call operator). In Gujarat the administrative overheads are 27.26% and the direct costs of operating the ambulances are 30.85% of the total operating cost and service provider salaries are 41.89%. In Rajasthan, the administration component is 38.32% while the ambulance component is even less at only 15.17% and the salaries of service providers is 41.89%. The ratio between running costs and the salaries of service providers correlates with average trips made per ambulance. As the number of trips rises the ratio falls - from about 1: 2.8 in Rajasthan to about 1: 1.35 in Gujarat to less than 1.5: 1 in Andhra Pradesh. The administrative costs, which include supervision costs, remains steady, probably

stabilising at about 30 to 35%. Gujarat is lower than this norm, but that is explained by the Gujarat CEO as transient, due to all supervisors not yet being put in place. Rajasthan is higher but that is explained by inter- state transfers. Inter-state transfers, especially from Rajasthan's fund to the funds in Goa and Andhra Pradesh, are one reason why Rajasthan has relatively higher administrative costs. The reasons for this are the liquidity problems in other states and due to the need for interest payments, and leadership costs being incurred at Hyderabad. These transfers (from EMRI Rajasthan and from some other state as well) were done without prior permission by diverting funds advanced for other purposes and were subsequently stopped.

### THE FINANCING OF EMRI

1. Currently 100% of the capital costs in all states except in Andhra Pradesh are being provided by the government. In Andhra Pradesh alone the capital costs, excluding the costs of the ambulances, are to be provided by EMRI. For ambulances, the cost of the first 70 ambulances was contributed by private sector (Shri.R. Raju, the then CEO of Satyam) and this was in 2005 -07. When it was expanded with 400 ambulances from the government the costs of these ambulances, but no other capital costs were borne by the government.
2. The costs of the call centre in EMRI's Andhra headquarters and the expansions made in it, the cost of the training institution and the training programmes developed and the technology development are all EMRI's contribution. The 40 crores taken as loan and overdraft in 2006-07 went towards this expenditure. There is the burden of a huge interest payment on this count. In the last board meeting held under Shri Raju's chairpersonship in October 2008, a fund of Rs 36 crores was promised to meet the capital expenditure and the leadership costs of the national headquarters and Andhra operation. This did not come through and this is the main source of the current crisis. Funds were drawn from the state grants towards meeting these commitments, but facing objections from the state, this was stopped.
3. The national headquarters could not pay back these borrowing, leaving therefore a liquidity crisis in the states. Also it could not pay back to its creditors here or have advances for continuing its national headquarters functions.
4. Of the operating costs, 95% were to be borne by the government and the remaining 5% of operational costs were to be borne by EMRI. It has been clarified that such a contribution has *not* been made in any of the states. Further that it would no longer be possible to make this contribution- even in a best case scenario. The audited statements of expenditure and income statements of Gujarat showed 5% as being borne by EMRI, but even this was explained as an error in the way it has been booked. Thus 100% of capital costs and operational costs are borne by the government.
5. All of this government expenditure, whether capital or operational is from the central government - through the NRHM flexible pool. However from this year (2009-10) onwards, there has been a notification that henceforth, in the first year the state would have to bear 40% of operational costs, 60% in the second year, 80% in the third year, and 100% subsequently.
6. EMRI however states that there is a sum of approximately Rs 36 crore per year that their national operation has to bear. These it calls leadership costs and this covers five activities- leadership, technology, research, national training and innovation. Most of this cost is in the form of salaries for human resources and national administrative infrastructure and functioning. These funds were committed by Shri Raju and other members of the society but even when they are unable to meet these commitments, EMRI would prefer to raise these funds from private sponsors. The CEO reports that a number of parties are positive about supporting these central leadership costs but these sponsors would not be able to meet the 5% of operational costs- which incidentally would be about the same amount or less. Part of the reason why the EMRI leadership would prefer to source these leadership costs from outside the government, is to retain their flexibility and autonomy in decision making where it relates to terms and conditions and work allocations of this national leadership component- even in a situation where all the rest is under a government led board.
7. There are no user fees for any category of users. Though by itself this is desirable for a public health service, especially for an ERS, there are two problems that would result. One is the sustainability if utilization continues to rise exponentially, and more and more ambulances become necessary. And secondly, checks on over-consumption of the service.
8. The travel costs of pregnant women are potentially recoverable substantially from the Janini Suraksha Yojana (JSY) allocations. However JSY allocation is not meant for all and many categories are absent in the high performing states. To that extent it would not be recoverable. However JSY may be seen as one source of funding, although, that is also central government funds flowing from the same pool and these funds are already committed by the central government.
9. One of the most remarkable features of the financing plan is that there is really no plan. The text in the MOUs as regards costs and business plans has no relevance at all to actual financing. The exact manner of financing the costs is for the government to pay a large sum (generally, 25% of the annual contract value) as advance and then after a time period (mostly, monthly), it is up to EMRI to declare how many trips it has made and how much it has spent on them. There are no ceilings nor any minimum levels nor any targets. Indeed it does not even declare the trips it has made, though it sends a daily sheet of ambulance trips from which the government could estimate the payment to be made- which no government has ever been able to do. Governments have no idea about the staff strengths deployed, or even what funds are committed or unit costs permissible per ambulance or per kilometer travelled etc. The EMRI thus has a commitment from the government that it can spend whatever it takes on operational costs and even on capital costs, and this would be paid for in advance. This is not spend and reimbursement arrangement- but advance payment arrangement.
10. Operating costs are currently approximately Rs 15 to Rs 17 lakhs per ambulance per year. These costs could be expected to rise further. Thus the currently estimated Rs. 1700 crores required per year for a projected fleet of 10,000 ambulances needed nationwide could finally be two to three times this amount. Sustainability would thus become a major issue.
11. However Rs 1700 crores per year needed for nationwide coverage is only around 10% of current NRHM annual budget and would be only about 3% of the promised Rs 55,000 crore per year that was projected as the level of public expenditure on NRHM that was to be reached by 2012. Even if we take a higher level of utilisation, then it would be about 5% of the NRHM budget.

## GOVERNANCE AND MANAGEMENT

The EMRI has been as a single agency in most states without a tendering process. Whereas in Andhra, in the early phase this was a partnership with Satyam bringing in investment, subsequently the project became 100% government funded and 95% government funded. With even this small 5% not turning up, it is now a 100% government funded. Most of the MOUs have the provision of declaring it a monopoly provider. This is also not an essential feature for success. Potentially one could have a system of multiple ownership of ambulances, with a single call center, or a mix of public or private or even more than one provider in a state. Of course regulation would be essential for efficiency so that there is only one operator for a given area. However to the extent that by virtue of 100% ownership EMRI would need to increasingly abide by government financial regulations and soon face all the attendant HR issues as well, one may well rethink even this aspect of it. Procurement of ambulances and their fabrication have been two separate contracts and tendering process- the first costing about Rs 5 to 6 lakhs per ambulance and the fabrication costing about Rs 3 lakhs per ambulance and then the equipment costs. In Andhra the government tendering process was followed, with the government doing the tendering for the vehicle and the EMRI tendering the fabrication component. There was joint committee that conducted both procurements and payment was through EMRI. In Gujarat the first 75 vehicles were as per Andhra Pradesh's tender but subsequently, the rest was by government tendering process with a joint tendering committee composed of equal number of government and EMRI representatives. This same process was used in Rajasthan. There are states like Uttarakhand that left it to EMRI and even some that did it fully on their own - though the latter was cancelled. In Rajasthan the cost per ambulance came down to Rs 5.3 lakhs with fabrication costs at Rs 2.8 lakhs. One of the management challenges and achievements of EMRI has been its HR planning and management. Each ambulance has 3 pilots (drivers) and three EMTs who work in pairs of two for every 12 hour shift. For every 15 ambulances there is one operation executive and one fleet executive- both supervisors, the first of the care given and the second a diploma in automotive engineering, provided for vehicle support. Above them there is one district manager, and one administrative officer for every district. There is a small advance of Rs 500 given to every ambulance, Rs 5000 given to every operation executive and Rs 12,000 to every fleet executive. At the call center there are approximately 500 calls handled per call officer and 100 despatches per despatch officer. This impressive staff strength and this ideal pyramid of supervisory staff to manage the staff would be the envy of every programme manager in the health system. It is to the credit of the EMRI that it could put in place such a structure. It is unlikely that any other programme, especially if done within the government would have been allowed this. And yet this adequacy in the supervisory structure is essential to this schemes success. When costs are lowered through a tendering process, or there is a rationalisation of costs that is attempted,

## CONCLUSION

1. EMRI is undoubtedly a historic landmark in the provision of health care in the nation. To its credit goes the achievement of bringing Emergency medical response on to the agenda of the nation.
2. Though not part of the original NRHM design, its tremendous popular appeal along with the flexibility of the NRHM design made it possible for it to emerge as one of the leading innovations of the NRHM period.
3. The first common review mission of the NRHM had noted this as one of the two successful public private partnerships worth replicating. However, even then the need for a closer look at the costing and the contractual arrangements and the need for independent monitoring had been recognized.
4. The crisis of its promoter only hastened on a process of evaluation that was well underway. Today there is a situation that without central intervention into the governance of the EMRI, the whole system could collapse. Yet such intervention if poorly planned could create more problems than it would solve.
5. This evaluation seeks to build on the EMRI model of ERS, not replace it, and much less abandon it. The average cost of Rs 45030 per ambulance trip, provided free to every emergency medical, police or fire needing help anywhere in the country, and that too within 20 to 40 minutes, is almost a dream, and it is a dream that is tantalizingly within our reach, not within a lifetime but within a plan period!! Rs 2000 crores to reach such a goal is steep but not impossible.
6. It costs about as much as we spend on pulse polio today. The only danger in this stage is the danger of complacency and the abandonment of caution and basic systems of governance in a fit of populism and competitive promotion of what seems a certain winner. It is in this spirit of such caution mixed with a commitment to achieving universal ERS that these recommendations are made.

## REFERENCE

1. Joseph A. Barbera, MD, Anthony(2007) Healthcare Emergency Management Competencies Health Administration contract "Emergency Management Academy Development,"
2. Pete Brewster, Donna Roberts, Emergency Management Programs for Health Care Systems 031109 Working Draft
3. AK Das, SB Gupta Emergency Medicine in India: INDO-US Joint Working Group
4. Dr. Mukul K. Saxena Challenges in Emergency Management Research
5. Dr. Saddichha Sahoo and Dr. Mukul Kumar Saxena Medical Emergencies in india A Preliminary Analysis
6. NRHM Reports 2009. Study of Emergency Response Service - EMRI model
7. Dr. Biranchi N. Jena Impact of EMRI Services on the Public Healthcare System Delivery
8. Gopal Agrawal and Dr. Biranchi N. Jena Contribution of EMRI's 108 Services in Uplifting Life Expectancy in Andhra Pradesh
9. India's Public Health System How well does it function at the national level? World Bank Policy Research Working Paper 3447, November 2004

## MEDIA COLLISION ON THE BRAIN FRAME: IMPACT OF MEDIA ON THE CONSUMER BUYING BEHAVIOUR

**SWATI CHAUHAN**

**MBA (HUMAN RESOURCES & MARKETING), AMITY BUSINESS SCHOOL  
AMITY UNIVERSITY  
JAIPUR 302 006**

**YADUVEER YADAV**

**MBA (FINANCE & MARKETING), AMITY BUSINESS SCHOOL  
AMITY UNIVERSITY  
JAIPUR 302 006**

### ABSTRACT

*Media being an attribute to communicate one's product has got an essential core importance in knowing the consumer's perception towards different products. It changes consumer preferences, creates brand loyalty, and persuades consumers to favour commodities that they did not previously find useful. The research work on impact of media advertisement on consumers buying behaviour is conducted at the Jaipur city which includes men and women of every age. The non-probability sampling was adopted including the sample size of 74. The survey was conducted at various shopping centres of Jaipur including Gaurav Tower, Reliance Fresh, National Handloom, Vishal Mega Mart, and Big Bazaar, City Pulse, MGF Metropolitan. The objective of the research is to know whether the media has any impact in the minds of consumers before making the purchase decision. Under this project a questionnaire is drafted which includes 13 questions, on the basis of which we have tried to find out the impact of media on consumers buying behaviour. For the research, we collected primary data to gain first hand information. Various bar graphs and pie charts were used to analyze and interpret the data by using chi-square test. At the initial stage of the project we conducted the pilot study with the sample size of 20 at Amity University Jaipur. After the pilot study the validity testing was done and then finally the questionnaires were filled by the respondents. It took 3 months for the completion of the research. The study of consumer behaviour helps everybody as all are consumers. It is essential for marketers to understand consumers to survive and succeed in this competitive marketing environment. Media being an attribute to communicate ones product has got an essential core importance in knowing the consumers perception towards different products. It changes consumer's preferences, create brand loyalty and persuade consumers to favour commodities that they did not previously find useful. It is found from the research that media plays a significant role in consumers buying behaviour. The impact of advertisements influences the consumers mind before making buying decisions.*

### KEYWORDS

Consumer, Media, Product, Perception, Impact, Behaviour.

### INTRODUCTION

**C**onsumer behaviour is comparatively a new field of study which evolved just after the Second World War. The **seller's market** has disappeared and buyers market has come up. This led to **paradigm shift** of the manufacturer's attention from product to consumer and specially focused on the consumer behaviour. Consumer behaviour is the study of when, why, how, and where people do or do not buy a product. It blends elements from psychology, sociology, social anthropology and economics. It attempts to understand the buyer decision making process, both individually and in groups. It studies characteristics of individual consumers such as demographics and behavioural variables in an attempt to understand people's wants. It also tries to assess influences on the consumer from groups such as family, friends, reference groups, and society in general.

Customer behaviour study is based on consumer buying behaviour, with the customer playing the three distinct roles of user, payer and buyer. Relationship marketing is an influential asset for customer behaviour analysis as it has a keen interest in the re-discovery of the true meaning of marketing through the re-affirmation of the importance of the customer or buyer. A greater importance is also placed on consumer retention, customer relationship management, personalisation, customisation and one-to-one marketing. Social functions can be categorized into social choice and welfare functions.

#### CONSUMER BEHAVIOUR RE-DEFINED

It is broadly the study of **individuals**, or **organisations** and the **processes** consumers use to search, select, use and dispose of products, services, experience, or ideas to satisfy needs and its impact on the consumer and society.

#### MOTIVES WHICH INFLUENCE PURCHASE DECISION

The buying motives may be classified into two:

- **Product Motives**
- **Patronage Motives**

#### NEED FOR STUDY OF CONSUMER BEHAVIOUR

The study of consumer behaviour helps everybody as all are consumers. It is essential for marketers to understand consumers to survive and succeed in this competitive marketing environment.

- **Importance in day to day life**
- **Pertinence to Decision Making**

- **Organisational Buyer versus Individual Buyer**

The **media** generate information as a network then publish information using articles, videos, and photos to a group of consumers, in turn influencing individual interpretations of the information provided while potentially influencing unrelated cultural and personal beliefs, as per the propaganda model. Mass media content created for newsworthy events and those stories that are not told all have consequences on the consumer and therefore the culture supposedly being influenced.

The media has a strong social and cultural impact upon society. This is predicated upon their ability to reach a wide audience with a strong and influential message. **Marshall McLuhan** uses the phrase “**the medium is the message**” as a means of explaining how the distribution of a message can often be more important than content of the message itself. Media being an attribute to communicate one’s product has got an essential core importance in knowing the consumer’s perception towards different products. It changes consumer preferences, creates brand loyalty, and persuades consumers to favour commodities that they did not previously find useful.

The study of consumer behaviour helps everybody as all are consumers. It is essential for marketers to understand consumers to survive and succeed in this competitive marketing environment. Media being an attribute to communicate ones product has got an essential core importance in knowing the consumers perception towards different products. It changes *consumer’s preferences*, create *brand loyalty* and persuade consumers to favour commodities that they did not previously find useful.

It is found from the research that media plays a significant role in consumers buying behaviour. The impact of advertisements influences the consumers mind before making buying decisions.

### LITERATURE REVIEW

In the past few years, majority of the research is being concentrated on knowing the impact of the different marketing variables including the impact of media on consumer buying. (**Jones, Tellis Lattin<sup>2</sup> et al.**). While proving that how closely these factors are inter-related, researchers came across with really interesting results.

**James H. et al.<sup>3</sup>** in his article on Evaluating the *Impact of Advertising Media Plans: A model of Consumer Purchase Dynamics*. Using single source data analysed that how advertising media plans and point of purchase impact a brand’s market performance. It also included what are the reasons for differences in the levels of loyalty towards different brands, exposure probabilities in different consumers. The overall research focused on formulation of multi-brand formulation and its application towards the analysis of advertising media plans. At the end the analysis showed that this model best matches up with the empirical data and exact estimate in hold out predictive tests.

**Herbert E.<sup>4</sup>** in his article on *The Impact of Television Advertising: Learning without involvement* said that it is not only the advertising which actually motivates consumer to behave in some kind of a fashion; there are other attributes which contribute to the driving sales. Attitudes could be changed by changing perceptions of the product and moreover when purchaser is not involved in the message.

**Carol H Tremblay<sup>5</sup> et al.** in a research on *The Impact of Cigarette Advertising on Consumer Surplus Profit and Social Welfare* tried to prove that to what extent the advertising of Cigarette brands helps in generating more profit and communicating the right message in order to achieve welfare for its consumers. From the research it was concluded that, the cigarette industry is not competitive and advertising is one of the major factor that increases market power.

It also does reduce the amount of consumer surplus if it is purely informative or persuasive but doesn’t have a vital effect on the surplus in totality.

**Eva-lena Andersson<sup>5</sup> et al.** (2006) in their study on *Coca-Cola or Pepsi; that is the Question: A study about different factors affecting consumer preferences* was being made in order to gain a deeper understanding of different international and local factors affecting consumer preferences on a local market.

It was concluded in the study that **International advertising** and **International sponsorship** relevantly influence the local target group in many different ways, but they also affect international brand in that they have an impact on brand image and brand equity It moreover also depends on the age factor which in turn influences the choice of an international brand as a preferences.

**Paul A. Herbig<sup>6</sup>** in a review over the *US population* says that *the impact of media is very pervasive* and huge that the people now are overloaded with the information need. “The average American is exposed to 61,556 words from the mass media each day.”

**Kramer et al.** (1994) says that the amount of exposure towards media and changing attitudes, influence the consumer and has a radical effect on the culture as a whole.

**MTV** is a perfect example of mass media and affects on the teenage buying behaviour as a popular TV programme (**Total Request Live**) advertises commercials from acne medication, fast food restaurants, and clothing which in turn drives the teenagers to behave in an effective manner.

**Stephen J. Hoch<sup>7</sup> et al.** (1986) in “*Journal of Consumer Research Inc*”. Studied on the *Consumer Learning: Advertising and the Ambiguity of Product Experience* that what do the consumers and how do the consumers get to know by experiences from products. Contrast to it two experiments were conducted using product categories that provided either ambiguous or unambiguous evidence about product quality.

One of the findings showed that when consumers have a clear understanding of the product attributes, and moreover its only dependent its physical existence, the affect of media is almost negligible. But contrary to it, there were consumers who did a lot of research while showing purchase behaviour towards a particular product as advertising had dramatical effects on the quality of the same.

**Carl F. Mela<sup>8</sup> et al.** examined the “*The Long-Term Impact of Promotion and advertising on Consumer Brand Choice*” (*Journal of Marketing Research* xxxiv,1997) tried to prove that **1)** Do consumer respond to the marketing mix variables over a long period of time and **2)** Are these changes associated with changes in manufacture’s advertising and promotional policies ?

It was inferred that more and more promotions schemes induced lesser Brand Loyalty and likely to loose the customers in the long run (*Business Week, 1991*). Moreover the consumers have become more prices sensitive and hence top brands like Colgate-Palmolive, P&G have reduced the frequency of the promotional programs. Studies in the past (Clarke, 1976) show up very few implications of the promotional effectiveness in the long run. It does not examines changes due to the product life cycle factors i.e. Only the brand choice decisions are considered under mature product categories.

**Fezeena Khadir<sup>9</sup>** in her article on “*Marketing and its impact on vulnerable consumer groups*”

Like children, adolescents etc.”, made a study on the impact of marketing on vulnerable consumer groups like children and adolescents. She concluded that most of the products last longer than the time the child remains in that age and proved that they become more socially acceptable among their peer groups, improve their vocabulary and pronunciation of the foreign language, change their body language to fit to the demands of the society and seemingly become smarter by opening themselves to the marketing strategies.

The attitude towards the brands by merely the influence of media has become a fashion. It is more or less proposed as a ***lifestyle necessity*** more than anything else. Even the slogans that endorse these products are nothing more than a vacant expression which drives consumer behaviour.

<sup>10</sup>**Dinesh Kr.** on his paper on the “*Impact of Celebrity Endorsement on Consumer Buying Behaviour and Brand Building*” says it does revitalises the product image and moreover makes over the attitude towards a brand and attract more and more consumers than a non-celebrity endorsed advertisement campaign but is not of a mass appeal!

He adds on that to make a celebrity endorsed brand more influential and more effective, the image and the status of the celebrity should be duly matched up with the personality of the product.

<sup>11</sup>**Tony Meenaghan et al.** (1999) in their article on “*Media effect in Commercial Sponsorship*”. In the case of sponsorship both the message and media elements are not separate but they present the result of focus group research which sought to examine the images transferred by different categories of sponsorship, i.e. sports and arts.

They tried to show that the goodwill, which is generated amongst consumers as a result of corporate sponsorship involvement, varies by sponsorship category. The results have important implications for sponsorship managers in terms of the choice of sponsorship category and the manner in which sponsorship investments are leveraged.

## RESEARCH OBJECTIVES

### MAIN OBJECTIVE

To analyse the influence of different forms of media *viz.* advertisements, publicity, internet, radio etc on the purchase behaviour of the consumer.

### KEY OBJECTIVES UNDERLYING IT

- To study the perception of consumers towards media advertisement at Jaipur city.
- To study the impact of advertisement media on customers at Jaipur city.
- To study which mode of media is most influencing in buying decisions at Jaipur city.
- To study the demographic factors affecting the advertisement acceptance among Jaipur city.

## OVERVIEW OF RESEARCH HYPOTHESIS

1.  $H_0$  – There is no effect of Demographic factors on the media acceptance in Jaipur city.

$H_A$  – There is a strong effect of Demographic factors on the media acceptance in Jaipur city.

2.  $H_0$  – There is no impact of media on the perception of consumers in the Jaipur city.

$H_A$  – There is a substantial impact of media on the perception consumers in the Jaipur City.

## RESEARCH METHODOLOGY

As data was non parametric, in most of the research *pie chart, bar graph* etc. and also *chi square test* is used to interpret data. **MS Excel, SPSS** data management systems were used to analyse the data.

The research study on “Impact of media advertisement on consumers buying behaviour” is conducted at the Jaipur city which includes men and women of every age.

The non-probability sampling was adopted including the sample size of 74. The survey was conducted at various shopping centres of Jaipur including Gaurav Tower, Reliance Fresh, National Handloom, Vishal Mega Mart, and Big Bazaar, City Pulse, MGF Metropolitan.

Under this study a QUESTIONNAIRE (*Appendix 36*) was being designed which includes 13 questions on the basis of which we have tried to find out the impact of media on consumer buying patterns.

### RESEARCH DESIGN (ACTUAL PRE-RESEARCH PLAN)

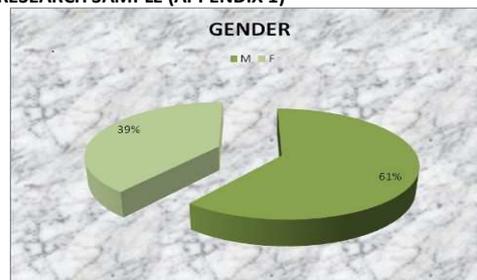
#### SAMPLE DESIGN

The sample size selected for the study is 80 (estimated) people which include both males and females including people from every income group. We are assuming that the significance level for the study is going to be almost 5 %.

We will be conducting our survey at various malls of Jaipur city including malls such as MGF Metropolitan, Crystal palm, Spencers, Crystal mall, City Pulse. The sampling technique we will be using for our study is **STRATIFIED RANDOM SAMPLING**.

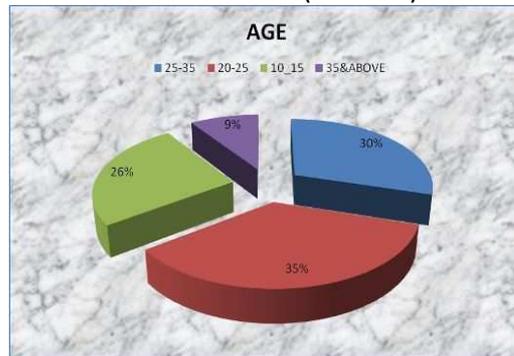
## RESEARCH FINDINGS

### 1. TO DETERMINE THE DEMOGRAPHY OF RESEARCH SAMPLE (APPENDIX 1)



It is found from the graph that research sample consist of 61% males and 39% of females.

**2. TO DETERMINE THE AGE GROUP OF PEOPLE INVOLVED IN RESEARCH SAMPLE (APPENDIX2)**



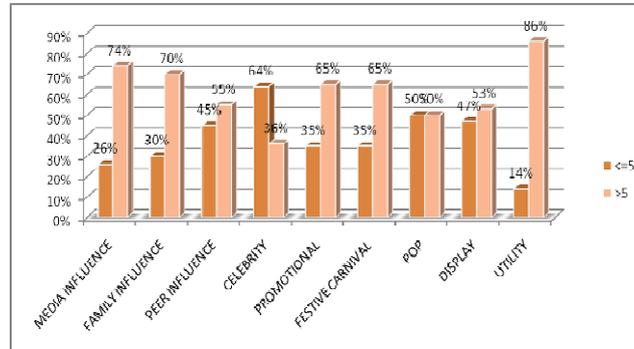
It is found from the graph that research sample contains age group of 30% between 25-35, 35% between 20-25, 26% between 10-15, 9% 35& above age group.

**3. TO DETERMINE THE PROFESSION OF PEOPLE INVOLVED IN RESEARCH SAMPLE (APPENDIX 3)**



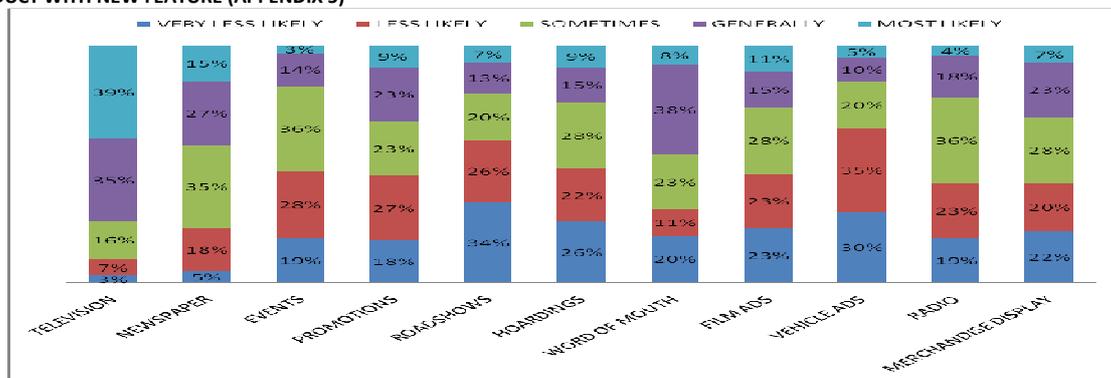
It is found from the graph that in research sample 50% are student, 40% professional, 7% business personals and 3% others.

**4. TO DETERMINE THE EXTENT OF INFLUENCE OF DIFFERENT FACTORS WHILE PURCHASING A PRODUCT (APPENDIX 4)**

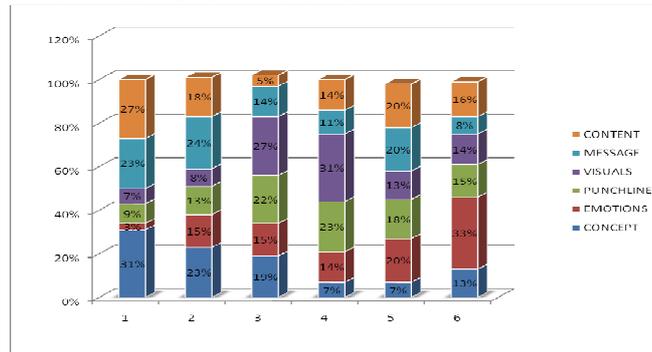


It is found from the study that 86% of people believe utility of a product is the most important factor in purchase of a particular product whereas 74% of people believe media influence is the second most important factor that influences the purchase of a product.

**5. TO DETERMINE THE PERCENTAGE OF DIFFERENT MODE BY WHICH PEOPLE GET TO KNOW ABOUT A NEW PRODUCT OR AN EXISTING PRODUCT WITH NEW FEATURE (APPENDIX 5)**



6. TO DETERMINE THE REASON BEHIND APPRECIATION OF AN ADVERTISEMENT



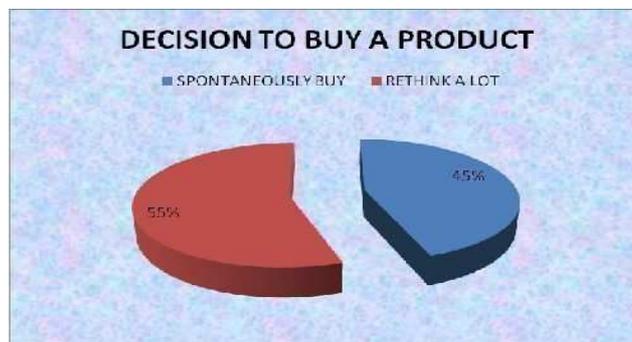
It is revealed from the graph that 27% people gave 1st rank, 18% 2nd rank, 5% 3rd rank, 14% 4th rank, 20% 5th rank and 16% gave 6th rank to the content of an advertisement.

7. TO DETERMINE THE PERCENTAGE OF PEOPLE WHO BUY A PRODUCT THAT IS NOT BEING ADVERTISED OR NOT PROMOTED (APPENDIX 7)



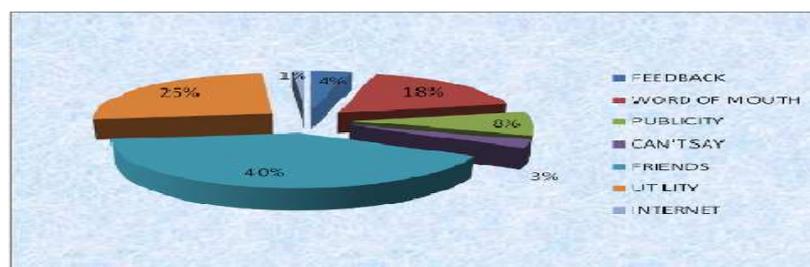
It is found from the graph that 58% of respondents buy a product not advertised due to its requirement, 22% buy usually, 13% buy occasionally, 7% never buy.

8. TO DETERMINE WHETHER CONSUMER BUY A PRODUCT SPONTANEOUSLY OR RESEARCH A LOT BEFORE PURCHASE OF PRODUCT (APPENDIX 8)



It is found from the graph that 55% of respondents think a lot before purchase of particular product whereas 45% spontaneously buy a product.

9. TO DETERMINE THE MEANS BY WHICH CONSUMER CAME TO KNOW ABOUT A PARTICULAR PRODUCT IF ADVERTISEMENT DO NOT INFLUENCE BUYING DECISION (APPENDIX 9)



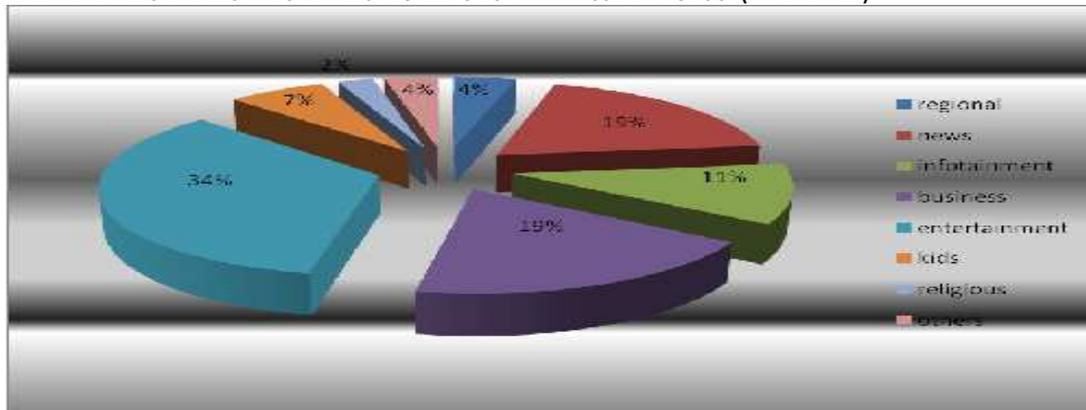
It is found from the graph that 40% of people get to know about a particular product through friends, 26% due to utility, 1% through internet, 4% through feedback, 18% through word of mouth, 8% through publicity and rest 3% can't say.

**10. TO DETERMINE WHETHER PEOPLE LIKE ADVERTISEMENTS IN BETWEEN THE PROGRAM OR NOT (APPENDIX 10)**



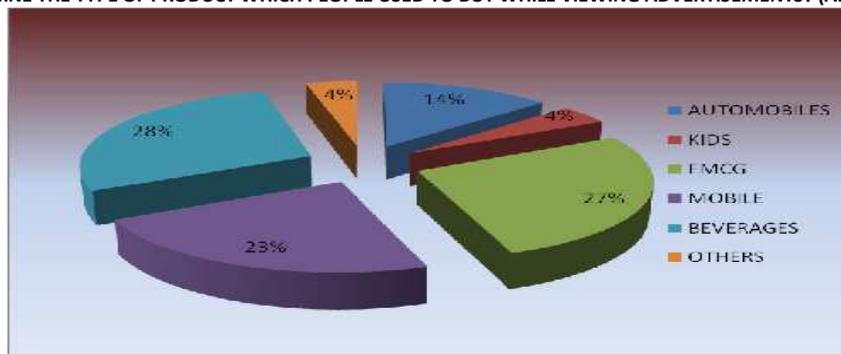
It is found from the graph 49% respondents watch advertisements or not depend on the program they are watching, 31% like to watch advertisements in between the program and rest 20% don't like to watch advertisements.

**11. TO DETERMINE THE CHANNELS WHICH DRIVES PEOPLE TO BUY A PARTICULAR PRODUCT (APPENDIX 11)**



It is found from the graph 34% entertainment channel, 19% business channel, 19% news channel, 11% infotainment channel, 7% kids channel, 4% regional channels, 2% religious channel and rest 4% watch other channels that drives people to buy a particular product.

**12. TO DETERMINE THE TYPE OF PRODUCT WHICH PEOPLE USED TO BUY WHILE VIEWING ADVERTISEMENTS? (APPENDIX 12)**



It is found from the graph that 28% respondents purchase beverages, 27% FMCG, 23% mobile, 14% automobiles, 4% kids item and rest 4% other items while viewing advertisements.

**13. TO DETERMINE INFLUENCE OF MEDIA ADVERTISEMENTS ON BUYING DECISION (APPENDIX 13)**



It is found from the graph 60% respondents believe that media advertisement influence their purchasing decision , 24% responded to very often , 15% responded to rarely and rest 1% responded for others.

### HYPOTHESIS TESTING

1. The objective is to determine whether there exists is a relationship between age and media influence. The null hypothesis (Ho) says that there is no relationship between age and media influence whereas the alternative hypothesis (HA) says that there exists a relationship between age and media influence. It is found that Ho is rejected whereas HA is accepted which shows that there exists a relationship between age and media influence. (*Appendix 14*)
2. The objective is to determine whether there is a relationship between age and family influence. The null hypothesis (Ho) is assumed that there is no relationship between age and family influence whereas alternative hypothesis (HA) is assumed that there exists a relationship between age and family influence. It is found from the test that there exists a strong relationship between age and family influence so Ho is rejected and HA is accepted. (*Appendix 15*)
3. The objective is to determine whether there exists is a relationship between age and peer group influence. The null hypothesis (Ho) is assumed that there is no relationship between age and peer group influence whereas the alternative hypothesis (HA) is assumed that there exists a relationship between age and peer group influence. It is found from the test statics that there is no relationship between age and peer group influence. Therefore, Ho is accepted and HA is rejected. (*Appendix 16*)
4. The objective is to determine whether there exists is a relationship between age and celebrity endorsement. The null hypothesis (Ho) assumes that there is no relationship between age and celebrity endorsement whereas, the alternative hypothesis (HA) assumes that there exists a relationship between age and celebrity endorsement. It is found from the test statics that there exists a relationship between age and celebrity endorsement. Therefore, HA is accepted and Ho is rejected. (*Appendix 17*)
5. The objective is to determine whether there is a relationship between age and promotional influence. The null hypothesis Ho is assumed that there is no relationship between age and promotional influence whereas, alternative hypothesis HA is assumed that there is a relationship between age and promotional influence. It is found from the test statics that there is a relation between age and promotional influence. Therefore, HA is accepted and Ho is rejected. (*Appendix 18*)
6. The objective is to determine whether there is a relationship between age and festive carnivals. The null hypothesis Ho is assumed that there is no relation between age and festive carnivals whereas, the alternative hypothesis HA is assumes that there is a relationship between age and festive carnivals. It is found from the test statistics that there is a relationship between age and festive carnivals. Therefore, HA is accepted and Ho is rejected. (*Appendix 19*)
7. The objective is to determine whether there exists is a relationship between age and point of purchase. The null hypothesis Ho is assumed that there is no relation between age and point of purchase whereas, the alternative hypothesis HA assumes that there is a relation between age and point of purchase. It is found from the test statistics that there is a relationship between age and point of purchase. Therefore, HA is accepted and Ho is rejected. (*Appendix 20*)
8. The objective is to determine whether there exists a relationship between age and display of the product. Null hypothesis Ho is assumed that there is no relation between age and display of the product whereas, alternative hypothesis HA is assumed that there exists a relation between age and display of the product. It is found from the test statistics that there is a relationship between age and display of the product. Therefore, HA is accepted and Ho is rejected. (*Appendix 21*)
9. The objective is to determine whether there is a relationship between age and utility. Null hypothesis Ho is assumed that there is no relation between age and utility of the product whereas, alternative hypothesis HA is assumed that there is a relation between age and utility of the product. It is from the test statistics that there is a relationship between age and utility of the product. Therefore, HA is accepted and Ho is rejected. (*Appendix 22*)
10. The objective is to determine whether there exist is a relationship between age and appreciation of an advertisement due to its concept. Null hypothesis Ho is assumed that there is no relation between age and appreciation of an advertisement due to its concept. Whereas, alternative hypothesis HA is assumed that there is a relation between age and appreciation of an advertisement. From the test is found that there exists a relationship between age and appreciation of the advertisement due to its concept. Therefore, HA is accepted and Ho is rejected. (*Appendix 23*)
11. The objective is to determine whether there is a relationship between age and appreciation of an advertisement due to its emotions. Null hypothesis Ho assumes that there is no relation between age and appreciation of an advertisement due to its emotions whereas, alternative hypothesis HA is assumed that there is a relation between age and appreciation of an advertisement due to its emotions. It is found from the test statistics that there exists a relationship between age and appreciation of the advertisement due to its concept therefore HA is accepted and Ho is rejected at 5 % significance level. (*Appendix 24*)
12. The objective is to determine whether there is a relationship between age and appreciation of an advertisement due to its punch line. Null hypothesis Ho is assumed that there is no relation between age and appreciation of an advertisement due to its punch line whereas alternative hypothesis HA assumes that there is a relation between age and appreciation of the advertisement due to its punch line. It is found from the test that there is no relationship between age and appreciation of advertisement due to its punch line. Therefore, Ho is accepted and HA is rejected at 5% level of significance. (*Appendix 25*)
13. The objective is to determine whether there is a relationship between age and appreciation of an advertisement due to its visuals. Null hypothesis Ho assumes that there is no relation between age and appreciation of an advertisement due to its visuals whereas alternative hypothesis HA assumes that there is a relation between age and appreciation of an advertisement due to its visuals. It is found from the testing that there exists a relationship between age and appreciation of an advertisement due to its visuals. Therefore, we accept HA and reject Ho at 5% significance level. (*Appendix 26*)
14. The objective is to determine whether there is a relationship between age and appreciation of an advertisement due to its message. Null hypothesis Ho is assumed that there is no relation between age and appreciation of an advertisement due to its message whereas alternative hypothesis HA is assumed that there is a relation between age and appreciation of an advertisement due to its message. It is found from the test statistics that there exists a relationship between age and appreciation of an advertisement due to its message. Therefore, we accept HA and reject Ho at 5 % level of significance. (*Appendix 27*)

15. The objective is to determine whether there is a relationship between age and appreciation of an advertisement due to its content. We assume Null hypothesis  $H_0$  that there is no relation between age and appreciation of an advertisement due to its content whereas, alternative hypothesis  $H_A$  is assumed that there is a relation between age and appreciation of an advertisement due to its content. It is found from the test statistics that there exists a relationship between age and appreciation of an advertisement due to its content. Therefore,  $H_A$  is accepted and  $H_0$  is rejected at 5% level of significance. (Appendix 28)

16. The objective is to determine whether there is a relationship between age and way of deciding to buy a product. Null hypothesis  $H_0$  assumes that there is no relation between age and way of deciding to buy a particular product and alternative hypothesis  $H_A$  assumes that there is a relation between age and way of deciding to buy a product. It is found from the testing that there is no relationship between age and way of deciding to buy a product. Therefore,  $H_A$  is rejected and  $H_0$  is accepted at 5% significance level. (Appendix 29)

17. The objective is to determine whether there is a relationship between profession and type of product purchased. Null hypothesis  $H_0$  assumes that there is no relation between profession and type of product purchased and alternative hypothesis  $H_A$  assumes that there is relation between profession and type of product purchased. It is found from the test statistics that there exists a relationship between profession and type of product purchased. Therefore,  $H_A$  is accepted and  $H_0$  is rejected at 5% significance level. (Appendix 30).

18. The objective is to determine the relation between profession and influence of media on buying decision. Null hypothesis  $H_0$  is assumed that there is no relation between profession and influence of media on buying decision and alternative hypothesis  $H_A$  assumes that there is a relation between profession and influence of media on buying decision. It is found from the testing that there exists a strong relation between profession and influence of media on buying decision. Therefore,  $H_A$  is accepted and  $H_0$  is rejected at 5% significance level. (Appendix 31)

19. The objective is to determine the relation between age and influence of media on buying decision. Null hypothesis  $H_0$  assumes that there is no relation between age and influence of media on buying decision whereas alternative hypothesis  $H_A$  assumes that there exists a relation between age and influence of media on buying decision. It is found from the test that there exist a strong relation between age and influence of media on buying decision 5% significance level. Therefore  $H_A$  is accepted and  $H_0$  is rejected. (Appendix 32)

20. The objective is to determine the relation between gender and media influence on buying decision. Null hypothesis  $H_0$  is assumed that there is no relation between gender and influence of media on buying decision. And alternative hypothesis  $H_A$  assumes that there is a relation between gender and influence of media on buying decision. It is found from the test statistics that that there is no relation between gender and influence of media on buying decision at 5% significance level. Therefore  $H_0$  is accepted and  $H_A$  is rejected. (Appendix 33)

21. The objective is to determine the relation between profession and media influence on buying decision. Null hypothesis  $H_0$  assumes that there is no relation between profession and influence of media on buying decision. Whereas alternative hypothesis  $H_A$  assumes that there is a relation between profession and influence of media on buying decisions. It is found from the testing that there exist a strong relation between profession and influence of media on buying decision at 5% significance level. Therefore  $H_A$  is accepted and  $H_0$  is rejected. (Appendix 34)

22. The objective is to determine whether there is a relationship between gender and appreciation of an advertisement due to its concept, emotions, punchline, visual, message, and content. Null hypothesis  $H_0$  assumes that there is no relation between gender and appreciation of an advertisement due to its concept, emotions, punchline, visual, message, content whereas, alternative hypothesis  $H_A$  assumes that there exist a relation between gender and . Appreciation of an advertisement due to its concept, emotions, punch line, visual, message, content, . it is found from the test statistics that there exists a strong relationship between gender and concept, emotions, punch line, visual, message, content at 10% significance level but there exist no relation 5% significance level. (Appendix 35)

23. The objective is to determine whether there is a relationship between profession and appreciation of an advertisement due to its concept, emotions, punchline, visual, message, and content. Null hypothesis  $H_0$  assumes that there is no relation between profession and appreciation of an advertisement due to its concept, emotions, punch line, visual, message content whereas alternative hypothesis  $H_A$  is assumed that there is a relation between profession and appreciation of an advertisement due to its concept, emotions, punch line, visual, message, content. It is found from the study that there is a strong relationship between profession and its concept, emotions, punch line, visual, content but there is no relationship between profession and message of the advertisement at 5% level of significance. (Appendix 36)

## RECOMMENDATIONS

On the basis of market research conducted we would like to highlight some of our recommendation to different organization so that they may leverage outcomes or findings of our study to increase their sales and market penetration.

- Family, peer group influence affects the ultimate decision, besides this promotion, festive carnivals do affect.
- Television advertisements most likely and newspapers, personal selling & film advertisements generally impacts consumer buying behaviour of any product.
- Content, message and concept of presented advertisement are the power factors for the customer behind any purchase.
- As most of the people are sensitive in their buying behaviour towards few products hence emotional advertisements also seeks their attention.
- As most of the people do buy goods spontaneously at the time of purchase hence merchandise display generally comes into notice.
- Entertainment, Business and News channels has best impression on consumer while purchase.
- Automobiles sales are most affected by advertisements strategy and after that mobile phones and at last fast moving consumer goods purchase are impacted.
- By this analysis we concluded that age of people is always affected by media, family, celebrity endorsement, promotional strategies, festive carnivals, point of purchase, utility, display of product.
- Advertisement's concept, its emotional appeal, visual, message, content also helps in persuading the age of the consumer for purchase.

From above discussion we can conclude that advertisement strategy certainly affects customer mindset to by a product which will help organization to gain competitive edge over competitors and to increase its market share.

## BIBLIOGRAPHY

MBA- Marketing, "Consumer Behavior" <http://www.pondiuni.org/DDE/consumer%20Behaviour.pdf>  
Kaldor (1950) Hypothesis, *Bauer and Greyser* (1968) *Greyser and Reece* (1971, p.158)

**Telser** (1964) and **Nelson** (1974) **Fisher1 and McGowan** "The Impact of Cigarette Advertising. (1979) <http://www.questia.com/PM.qst?a=o&d=96501770>

**Jones, Tellis Lattin**, Journal of Business Research [http://www.sciencedirect.com/science?\\_ob=ArticleURL&\\_udi=B6V7S-423HJPN-F&\\_user=10&\\_rdoc=1&\\_fmt=&\\_orig=search&\\_sort=d&view=c&\\_acct=C000050221&\\_version=1&\\_urlVersion=0&\\_userid=10&md5=ad8a49570de477046a66305e1e0e2c51](http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6V7S-423HJPN-F&_user=10&_rdoc=1&_fmt=&_orig=search&_sort=d&view=c&_acct=C000050221&_version=1&_urlVersion=0&_userid=10&md5=ad8a49570de477046a66305e1e0e2c51)

**James H. Pedrick, Fred S. Zufryden**, "Evaluating the Impact of Advertising Media Plans: A Model of Consumer Purchase Dynamics Using Single-Source Data", (MARKETING SCIENCE, Vol. 10, No. 2, Spring 1991, pp. 111-130) <http://mktsci.journal.informs.org/cgi/content/abstract/10/2/111>

**Herbert E. Krugman** "The Impact of Television Advertising: Learning without Involvement", May 15,1965. [http://ctl.scu.edu.tw/scutwebpub/website/DocUpload/CourseTeaching/mywang200626121254\\_1.pdf](http://ctl.scu.edu.tw/scutwebpub/website/DocUpload/CourseTeaching/mywang200626121254_1.pdf)

**Eva-lena Andersson, Evelina Arvidsson, Cecilie Lindström**, "Coca-Cola or Pepsi; that is the Question : A study about different factors affecting consumer preferences"2006 <http://www.essays.se/essay/a3181a9ffb/>

**Paul A Herbig**, "Mass Media and Popular Culture: Effects on the Population" (A review over the US population) March 2008 <http://www.oppapers.com/essays/Mass-Media-Popular-Culture/137140>

**Stephen J. Hoch**, "Consumer Learning: Advertising and the Ambiguity of Product Experience" "Journal of Consumer Research Inc". (1986) [http://jstor.com/Vol\\_13, No\\_2 \(Sep\\_, 1986\), pp\\_221-233.htm](http://jstor.com/Vol_13, No_2 (Sep_, 1986), pp_221-233.htm)

**Carl F. Mela, Sunil Gupta, and Donald R. Lehmann**, "The Long-term Impact of Promotion and Advertising on Consumer Brand Choice" 1996 [Pg.96-127] <http://www.msi.org/publications/publication.cfm?pub=445>

**Fezeena Khadir** "Marketing and its impact on vulnerable consumer groupsLike children, adolescents", Part VI – Consumer Markets & Marketing <http://dspace.iimk.ac.in/bitstream/2259/342/1/433-441.pdf>

**Dinesh Kr.** "Impact of Celebrity Endorsement on Consumer Buying Behaviour and Brand Building" <http://http://ssrn.com/abstract=1203322> – Impact of Celebrity Endorsement on Consumer Buying Behaviour and Brand Building by Dinesh Gupta.htm

**Tony Meenaghan, David Shipley** "Media effect in Commercial Sponsorship", 1999 (Pgs: 328 – 348) <http://www.emeraldinsight.com/10.1108/03090569910253170>

**APPENDIX 1**

**GENDER**

M	F
45	29

**APPENDIX 2**

**AGE**

25-35	20-25	10_15	35&ABOVE
22	26	19	7

**APPENDIX 3**

**PROFESSION**

BUSINESS	STUDENT	PROFESSIONAL	OTHER
5	37	30	2

**APPENDIX 4**

	<=5	>5
MEDIA INFLUENCE	26%	74%
FAMILY INFLUENCE	30%	70%
PEER INFLUENCE	45%	55%
CELEBRITY	64%	36%
PROMOTIONAL	35%	65%
FESTIVE CARNIVAL	35%	65%
POP	50%	50%
DISPLAY	47%	53%
UTILITY	14%	86%

**APPENDIX 5**

	VERY LESS LIKELY	LESS LIKELY	SOMETIMES	GENERALLY	MOST LIKELY
TELEVISION	3%	7%	16%	35%	39%
NEWSPAPER	5%	18%	35%	27%	15%
EVENTS	19%	28%	36%	14%	3%
PROMOTIONS	18%	27%	23%	23%	9%

ROADSHOWS	34%	26%	20%	13%	7%
HOARDINGS	26%	22%	28%	15%	9%
WORD OF MOUTH	20%	11%	23%	38%	8%
FILM ADS	23%	23%	28%	15%	11%
VEHICLE ADS	30%	35%	20%	10%	5%
RADIO	19%	23%	36%	18%	4%
MERCHANDISE DISPLAY	22%	20%	28%	23%	7%

APPENDIX 6

	1	2	3	4	5	6
CONCEPT	31%	23%	19%	7%	7%	13%
EMOTIONS	3%	15%	15%	14%	20%	33%
PUNCHLINE	9%	13%	22%	23%	18%	15%
VISUALS	7%	8%	27%	31%	13%	14%
MESSAGE	23%	24%	14%	11%	20%	8%
CONTENT	27%	18%	5%	14%	20%	16%

APPENDIX 7

Usually	16
depends on requirement	43
Occasionally	10
Never	5

APPENDIX 8

DECIDING TO BUY A PRODUCT

SPONTANEOUSLY BUY	RETHINK A LOT
33	41

APPENDIX 9

MEANS TO KNOW

FEEDBACK	WORD OF MOUTH	PUBLICITY	CAN'T SAY	FRIENDS	UTILITY	INTERNET
3	13	6	2	30	19	1

APPENDIX 10

WATCHING ADVERTISEMENT IN BETWEEN PROGRAMS

Y	DEPEND	N
23	36	15

APPENDIX 11

CHANNEL DRIVES							
regional	News	infotainment	business	entertainment	kids	religious	Others
7	31	18	31	56	11	4	6

APPENDIX 12

TYPE OF PRODUCT YOU LIKE

AUTOMOBILES	KIDS	FMCG	MOBILE	BEVERAGES	OTHERS
10	3	20	17	21	3

APPENDIX 13

Influence

VERY OFTEN	RARELY	SOMETIMES	NEVER
18	11	44	1

APPENDIX 14

Test Statistics

	AGE	4AMI
Chi-Square	10.865 <sup>a</sup>	33.027 <sup>b</sup>

APPENDIX 15

Df	3	8
Asymp. Sig.	.012	.000

Test Statistics

	AGE	4BFI
Chi-Square	10.865 <sup>a</sup>	40.162 <sup>b</sup>
Df	3	10
Asymp. Sig.	.012	.000

APPENDIX 16

Test Statistics

	AGE	4CPI
Chi-Square	10.865 <sup>a</sup>	13.838 <sup>b</sup>
Df	3	9
Asymp. Sig.	.012	.128

APPENDIX 17

Test Statistics

	AGE	4DCE
Chi-Square	10.865 <sup>a</sup>	19.351 <sup>b</sup>
Df	3	10
Asymp. Sig.	.012	.036

APPENDIX 18

Test Statistics

	AGE	4EPRI
Chi-Square	10.865 <sup>a</sup>	28.432 <sup>b</sup>
Df	3	9
Asymp. Sig.	.012	.001

APPENDIX 19

Test Statistics

	AGE	4FFC
Chi-Square	10.865 <sup>a</sup>	33.838 <sup>b</sup>
Df	3	9
Asymp. Sig.	.012	.000

APPENDIX 20

Test Statistics

	AGE	4GPOP
Chi-Square	10.865 <sup>a</sup>	27.081 <sup>b</sup>
Df	3	10
Asymp. Sig.	.012	.003

APPENDIX 21

Test Statistics

	AGE	4HDP
Chi-Square	10.865 <sup>a</sup>	19.649 <sup>b</sup>
Df	3	10
Asymp. Sig.	.012	.033

APPENDIX 22

Test statistics

	AGE	4IU
Chi-Square	10.865 <sup>a</sup>	68.919 <sup>b</sup>
Df	3	7
Asymp. Sig.	.012	.000

APPENDIX 23

Test Statistics

	AGE	V25
Chi-Square	10.865 <sup>a</sup>	20.378 <sup>b</sup>
Df	3	5
Asymp. Sig.	.012	.001

APPENDIX 24

Test Statistics

	AGE	V26
Chi-Square	10.865 <sup>a</sup>	19.405 <sup>b</sup>
Df	3	5
Asymp. Sig.	.012	.002

APPENDIX 25

Test Statistics

	AGE	punchline
Chi-Square	10.865 <sup>a</sup>	5.784 <sup>b</sup>
Df	3	5
Asymp. Sig.	.012	.328

APPENDIX 26

Test Statistics

	AGE	V28
Chi-Square	10.865 <sup>a</sup>	22.486 <sup>b</sup>
Df	3	5
Asymp. Sig.	.012	.000

APPENDIX 27

Test Statistics

	AGE	V29
Chi-Square	10.865 <sup>a</sup>	10.162 <sup>b</sup>
Df	3	5
Asymp. Sig.	.012	.071

APPENDIX 28

Test Statistics

	AGE	V30
Chi-Square	10.865 <sup>a</sup>	11.459 <sup>b</sup>
Df	3	5
Asymp. Sig.	.012	.043

APPENDIX 29

	AGE	V32
Chi-Square	10.865 <sup>a</sup>	.865 <sup>b</sup>
Df	3	1
Asymp. Sig.	.012	.352

APPENDIX 30

Test Statistics

	PROFESSION	V43
Chi-Square	50.216 <sup>a</sup>	27.189 <sup>b</sup>
Df	3	5
Asymp. Sig.	.000	.000

APPENDIX 31

Test Statistics

	PROFESSION	V44
Chi-Square	50.216 <sup>a</sup>	54.757 <sup>a</sup>
Df	3	3
Asymp. Sig.	.000	.000

APPENDIX 32

Test Statistics

	AGE	V44
Chi-Square	10.865 <sup>a</sup>	54.757 <sup>a</sup>
Df	3	3
Asymp. Sig.	.012	.000

APPENDIX 33

Test Statistics

	GENDER	4AMI
Chi-Square	3.459 <sup>a</sup>	33.027 <sup>b</sup>
Df	1	8
Asymp. Sig.	.063	.000

APPENDIX 34

Test Statistics

	4AMI	PROFESSION
Chi-Square	33.027 <sup>a</sup>	50.216 <sup>b</sup>
Df	8	3
Asymp. Sig.	.000	.000

APPENDIX 35

Test Statistics

	GENDER	Concept	emotions	punchline	visual	message	content
Chi-Square	3.459 <sup>a</sup>	20.378 <sup>b</sup>	19.405 <sup>b</sup>	5.784 <sup>b</sup>	22.486 <sup>b</sup>	10.162 <sup>b</sup>	11.459 <sup>b</sup>
Df	1	5	5	5	5	5	5
Asymp. Sig.	.063	.001	.002	.328	.000	.071	.043

APPENDIX 36

Test Statistics

	concept	Emotions	punchline	visual	message	content	PROFESSION
Chi-Square	20.378 <sup>a</sup>	19.405 <sup>a</sup>	5.784 <sup>a</sup>	22.486 <sup>a</sup>	10.162 <sup>a</sup>	11.459 <sup>a</sup>	50.216 <sup>b</sup>
Df	5	5	5	5	5	5	3
Asymp. Sig.	.001	.002	.328	.000	.071	.043	.000

QUESTIONNAIRE

AMITY UNIVERSITY, RAJASTHAN

We the students of Amity Business School, are conducting a market research on the topic "Impact of Media on Buying Behaviour of Consumers in Jaipur City". Therefore looking forward for your kind co-operation.

**THE 'MEDIA' COLLISION ON THE 'BRAIN FRAME'**

**Name:** \_\_\_\_\_

**1. Gender:**

Male  Female

**2. Age Group:**

5-10  15-20

10-15  20-25

25-35  35 & above

**3. Profession:**

Business  Professional.....

Student  Others..... (Specify)

4. You purchase a product because of: (Rate out of 10)

- a) Media influences  /
- b) Family influences  /
- c) Peer group influences  /
- d) Celebrity endorsements  /
- e) Promotional Influence
  - Discounts  /
  - Offers  /
- f) Festive Carnivals  /



- Usually  Occasionally  
 Depends on the requirement  never or rarely

8. So do you drop in out randomly at a store or do you research a lot before actually deciding to buy a product?

- Spontaneously buy  Rethink a lot before buying

9. If the advertisements do not influence your buying decisions, then by what means do you get to know about them? (*Please specify*)

10. Do you like advertisements while watching programmes on Television?

- Yes  No  
 Depends on the kind of programme

11. Which kind of a channel drives you to purchase a particular type of a product?

(Choose multiple options)

- Regional channels  Entertainment channels  
 News channels  Kids channels  
 Infotainment Channels  Religious Channels  
 Business channels  others.....

12. Which type of product do you like to buy while viewing advertisements?

- Automobiles  Mobile Phones  
 Kids Products  Beverages & Eatables  
 FMCG Products  Others.....

13. So how much does the media or the advertisements influence your buying decision?

- Very often (Every time)  Sometimes  
 Rarely  Never

*THANK YOU FOR YOUR CO-OPERATION....*

## **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**