

CONSUMER PREFERENCES AND SATISFACTION TOWARDS VARIOUS MOBILE PHONE SERVICE PROVIDERS AN EXPLORATORY STUDY IN JODHPUR CITY, RAJASTHAN

Prof. R.C.S. Rajpurohit*
Dr. M.L. Vasita**

Table of Contents

- Abstract
- Introduction
- Review of Literature
- Objectives of the Study
- Research Methodology
- Data Analysis and Interpretation
- Suggestions
- Concluding Remarks
- References

ABSTRACT

In the era of information explosion, people are to be provided with quick and timely access to information. Indian Telecom industry is one of the fastest growing telecom markets in the world. In telecom industry, service providers are the main drivers; whereas equipment manufacturers are witnessing growth. In this light, the present study deals with consumer preferences and their satisfaction level towards the mobile phone service providers available in Jodhpur city, Rajasthan. The present study conducted on 250 mobile phone users of various mobile phone service providers such as Vodafone, Airtel, BSNL, Reliance, Idea, Tata Indicom and few other players. The results derived from the study indicate that the factor that induces the consumers to buy a particular mobile phone operator is call tariffs followed by network coverage and brand image. The study also highlights that majority of respondents are satisfied with the value added services offered by their mobile phone service providers. The findings derived from the study will be helpful for mobile phone service providers in deciding and implementing their sales strategy for the promotion of mobile phone services.

INTRODUCTION

Exchange of information becomes the necessity of life to a common man. In the modern world an individual tends to communicate anything to everything right from the place where he/she stands. Even while riding vehicle he / she wants communicate

within a fraction of second at quick speed with clear voice, without any disturbance. Like line crossing, out of order, etc. most of which lack in the connection given by the department of telecommunication. Mobile phones emerges as a boon quench such a thirst, by providing facilities, which a common man cannot imagine. Though cell phone industry has its origin in the recent past and the growth has been excellent.

Consumer feedback is providing the market reflections to the marketer. This enables them to gain awareness about their market performance, consumer preference and their satisfaction level towards the services offered by them. The study at hand will throw light on the customer satisfaction status on various service offerings offered by different mobile phone service providers.

● Consumer Preferences

Consumer preferences is used primarily to mean to select an option that has the greatest anticipated value among a number of options by the consumer in order to satisfy his/her needs or desires. Preferences indicate choices among neutral or more valued options available. The preference of the consumer is the result of their behaviour they show during searching, purchasing and disposing the products.

● Consumer Satisfaction

Every human being is a consumer of different produces. If there is no consumer, there is no business. Therefore, consumer satisfaction is very important to every business person. The consumer satisfaction after purchase depends on the product performance in relation to his/her expectations.

Philip Kotler(2008) observed that satisfaction is a person's feelings of pressure or disappointment resulting from product's perceived performance (outcome) in relation to his or her expectations. Consumer satisfaction is the level of a person's felt state resulting from comparing a product's perceived performance (outcome) in relation to the person's

*Professor & Head, Department of Business Administration, J.N. Vyas University, Jodhpur (Raj.)

**Assistant Professor, Department of Business Administration, J.N. Vyas University, Jodhpur (Raj.)

expectations. This satisfaction level is a function of difference between perceived performance and expectations. If the product's performance exceeds expectation, the customer is highly satisfied or delighted. If the performance matches the expectations, the customer is satisfied. If the products performance falls short of expectations, the customer is dissatisfied.

Consumer satisfaction or dissatisfaction is the feeling derived by the consumer when he compares the product's actual performance with the performance that he expects out of it. Consumers make their expectations from the service quality, service, delivery, communications, past experiences and references. These all are to be judged correctly by the management so that their perceptions match with consumer expectations. If any of these factors are wrongly interpreted then the expected level of consumer satisfaction cannot be reached.

REVIEW OF LITERATURE

The references for the literature review used for the problem in hand are as follows:

Seth et al (2008) analyzed that there is relative importance of service quality attributes and showed that responsiveness is the most importance dimension followed by reliability, customer perceived network quality, assurance, convenience, empathy and tangibles. Liu (2002) found that the choice of a cellular phone is characterized by two attitudes: attitude towards the mobile phone brand on one hand and attitude towards the network on the other. Samuvel (2002) observed that most of the respondents consider size, quality, price, instrument servicing are an important factors for selecting the handset while majority of the respondents are satisfied over the payment system, quality of services, coverage area and the process of attending the complaints regarding their mobile service provider. Nandhini (2001) examined that attitude of the respondents using cell phones was not influenced by either education or occupation and income. Kalpana and Chinnadurai (2006) found that advertisement play a dominant role in influencing the customers but most of the customers are of opinion that promotional strategies of cellular companies are more sale oriented rather than customer oriented. Haque et al (2007) suggested that price, service quality, product quality & availability, and promotional offer play a main role during the time to choose telecommunication service provider.

OBJECTIVES OF THE STUDY

The objectives for the research problem in hand

are as follows:

- To know about the awareness level of consumers regarding their mobile phone service provider.
- To ascertain the attributes that consumer prefers in selecting a particular mobile phone service provider.
- To study the consumers' satisfaction level towards various services offered by mobile phone service providers.
- To assess the problems faced by the mobile phone users regarding their respective mobile phone service providers.
- To understand and offer valuable suggestions to improve the services of mobile phone service providers.

RESEARCH METHODOLOGY

The present research work is limited to study the consumer preferences and satisfaction towards various mobile phone service providers in Jodhpur city, Rajasthan. The research design used for the research problem in hand is exploratory research which is also termed as formulative research. The major emphasis in exploratory research is given on the discovery of ideas and insights of the research problem.

The sample design adopted for the research problem in hand is convenience random sampling. The sample size for the study is 250. The sample unit of the study included different occupation, age, income and educational background.

For the study in hand, both the primary and secondary data is collected. The primary data for the study is collected directly from target respondents through structured questionnaire and personal interviews. The secondary data for the study is collected from different sources such as technical and trade journals, articles, newspapers, magazines, internet, periodicals, books, reports, publications of associations related to mobile phone service providers.

DATA ANALYSIS AND INTERPRETATION

● Sample Profile

Table 1 shows that majority of respondents (36%) prefer BSNL followed by 29.2% respondents who prefer Airtel. The services of Vodafone are availed by 16.4% respondents and 8.4% respondents use Reliance. Only 5.2% respondents prefer Idea and 3.6% respondents are TATA Indicom users. Only 1.2% respondents are MTS and there are no users of Virgin.

TABLE NO. - 1
TABLE SHOWING COMPOSITION OF RESPONDENTS

S.NO	MOBILE PHONE SERVICE PROVIDER	NUMBER OF RESPONDENT	PERCENTAGE OF RESPONDENT
1	VODAFONE	41	16.4
2	AIRTEL	73	29.2
3	RELIANCE	21	8.4
4	BSNL	90	36
5	IDEA	13	5.2
6	TATA INDICOM	9	3.6
7	MTS	3	1.2
8	VIRGIN	0	0
9	OTHERS	0	0
TOTAL		250	100

• **Consumer Preferences**

TABLE NO. – 2
TABLE SHOWING CONSUMER PREFERENCES TOWARDS MOBILE PHONE SERVICE PROVIDERS ON THE BASIS OF PLAN

S. NO.	MOBILE PHONE SERVICE PROVIDER	NO. OF RESPONDENTS					
		POSTPAID		PREPAID		TOTAL	
		NO.	%	NO.	%	NO.	%
1	VODAFONE	6	2.4	35	14	41	16.4
2	AIRTEL	15	6	58	23.2	73	29.2
3	RELIANCE	4	1.6	17	6.8	21	8.4
4	BSNL	13	5.2	77	30.8	90	36
5	IDEA	0	0	13	5.2	13	5.2
6	TATA INDICOM	1	0.4	8	3.2	9	3.6
7	MTS	0	0	3	1.2	3	1.2
8	VIRGIN	0	0	0	0	0	0
9	OTHERS	0	0	0	0	0	0
TOTAL		39	15.6	211	84.4	250	100

Table 2 highlights that majority of respondents (84.4%) have prepaid plan and remaining 15.6% respondents have postpaid plan. In postpaid plan, 6% respondents use Airtel and 5.2% respondents use BSNL followed by 2.4% Vodafone users. In prepaid plan, 30.8% respondents use BSNL and 23.2% respondents use Airtel followed by 14% Vodafone users.

Table 3 shows that out of total responses, 149 responses show that family members is the most influencing factor which induced them to use a particular mobile phone service provider. Out of total responses received from respondents, friends at the second place, is the most influencing factor and advertisements at the third place, is the factor which induced them to use a particular mobile phone service provider. Dealers, neighbours and colleagues are the least influencing factors.

TABLE NO. - 3
TABLE SHOWING FACTORS THAT INFLUENCE CONSUMERS TO USE A PARTICULAR MOBILE PHONE SERVICE

S. NO.	MOBILE PHONE SERVICE PROVIDER	NO. OF RESPONDENTS								
		FAMILY MEMBERS	RELATIVES	NEIBHOURS	FRIENDS	ADVERTISEMENTS	DEALERS	COLLEGUES	OTHERS	TOTAL
		NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.
1	VODAFONE	20	8	1	18	9	1	0	1	58
2	AIRTEL	43	11	2	21	15	3	3	2	100
3	RELIANCE	11	4	0	2	6	1	0	0	24
4	BSNL	62	7	4	15	11	4	3	0	106
5	IDEA	8	1	1	5	5	3	0	0	23
6	TATA INDICOM	5	1	2	2	1	1	2	0	14
7	MTS	0	0	0	0	3	0	0	0	3
8	VIRGIN	0	0	0	0	0	0	0	0	0
9	OTHERS	0	0	0	0	0	0	0	0	0
TOTAL		149	32	10	63	50	13	8	3	328

TABLE NO. - 4
TABLE SHOWING CONSUMER PREFERENCES TOWARDS MOBILE PHONE SERVICE PROVIDERS ON THE BASIS OF PURPOSE

S. NO.	MOBILE PHONE SERVICE PROVIDER	NO. OF RESPONDENTS						
		INCOMING CALLS	OUTGOING CALLS	BOTH	SMS	INTERNET	OTHERS	TOTAL
		NO.	NO.	NO.	NO.	NO.	NO.	NO.
1	VODAFONE	2	0	38	22	3	0	65
2	AIRTEL	3	0	69	21	7	0	100
3	RELIANCE	0	0	21	6	0	0	27
4	BSNL	4	0	82	23	8	0	117
5	IDEA	0	0	13	7	0	0	20
6	TATA INDICOM	0	0	9	4	1	0	14
7	MTS	0	0	3	1	0	0	4
8	VIRGIN	0	0	0	0	0	0	0
9	OTHERS	0	0	0	0	0	0	0
TOTAL		9	0	235	84	19	0	347

Table 4 highlights that out of total responses (347), 235 responses show that the purpose of using a particular mobile phone service provider is both - incoming calls as well as incoming calls. SMS comes on the second place as 84 responses show that the purpose of using a particular mobile phone service provider is SMS.

TABLE No. - 5
TABLE SHOWING FACTORS THAT INDUCE CONSUMERS TO BUY A PARTICULAR MOBILE PHONE SERVICE PROVIDER

S. N. O.	MOBILE PHONE SERVICE PROVIDER	NO. OF RESPONDENTS										
		CAL L TAR I- FFS	BRAN D IMAG E	VALUE ADDED SERVIC ES	CUSTO- MER CARE SERVIC ES	NETWO RK COVERA GE	PERIOD IC- AL OFFERS	SERVIC E CHARG ES	AVAIL A- BILITY	SECUR I- TY DEPOS IT	OTH E- RS	TOT AL
		NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.	NO.
1	VODAFONE	13	17	1	4	29	2	4	9	0	0	79
2	AIRTEL	28	31	9	16	52	11	7	10	0	0	164
3	RELIANCE	14	5	0	2	4	3	3	2	0	0	33
4	BSNL	41	37	8	12	29	9	6	19	0	0	161
5	IDEA	6	8	0	1	6	4	3	3	0	0	31
6	TATA INDICOM	7	3	1	3	7	2	3	3	1	0	30
7	MTS	3	0	1	0	1	0	0	2	0	0	7
8	VIRGIN	0	0	0	0	0	0	0	0	0	0	0
9	OTHERS	0	0	0	0	0	0	0	0	0	0	0
TOTAL		112	101	20	38	128	31	26	48	1	0	505

TABLE No. - 6
TABLE SHOWING CONSUMERS' ATTITUDE TOWARDS IMPORTANCE OF OWNING A MOBILE PHONE CONNECTION

S.NO.	ATTITUDE TOWARDS OWNING A MOBILE PHONE CONNECTION	NUMBER OF RESPONDENTS	PERCENTAGE OF RESPONDENTS
1	NECESSITY	209	83.6
2	LUXURY	10	4.0
3	STATUS	7	2.8
4	COMPULSION	24	9.6
TOTAL		250	100

Table 5 shows that out of total responses (505), 128 responses show that respondents prefer network coverage as the most influencing factor which induced them to buy a particular mobile phone service provider. Responses show that call tariffs comes on the second place and brand image comes on the third place which is preferred as a deciding factor to buy a particular mobile phone service provider. Security deposit is the least preferred factor in this regard.

Table 6 reveals that among total respondents, majority of respondents (83.6%) say that owning a mobile phone connection is necessity for them while only 9.6% respondents state that owning a mobile

phone connection is compulsion for them. Only 4% respondents treat their mobile phone connection as luxury. Remaining 2.8% respondents believe that owning a mobile phone connection is a status symbol for them.

Table 7 shows that in case of periodical offers, only 55.6% respondents are aware and 14% respondents are unaware. Majority of respondents (87.6%) are aware the call charges whereas only 3.6%

respondents are unaware about the same. 76.4% respondents are aware about the network coverage of their mobile phone service provider while 8.4% respondents are unaware about the same. Majority of respondents (81.6%) are neutral in case of monthly rental of their mobile phone service provider. Only 37.2% respondents are aware of the value added services provided by their mobile phone service provider while 26% respondents are unaware of this service.

TABLE NO. - 7
TABLE SHOWING AWARENESS AMONG CONSUMERS TOWARDS VARIOUS SERVICES PROVIDED BY MOBILE PHONE SERVICE PROVIDER

S. NO.	AWARENESS TOWARDS VARIOUS SERVICES	NO. OF RESPONDENTS							
		AWARE		NEUTRAL		UNAWARE		TOTAL	
		NO.	%	NO.	%	NO.	%	NO.	%
1	PERIODICAL OFFERS	139	55.6	76	30.4	35	14.0	250	100
2	CALL CHARGES	219	87.6	22	8.8	9	3.6	250	100
3	NETWORK COVERAGE	191	76.4	38	15.2	21	8.4	250	100
4	MONTHLY RENTAL	35	14.0	204	81.6	11	4.4	250	100
5	VALUE ADDED SERVICES	93	37.2	92	36.8	65	26.0	250	100

TABLE NO. - 8
TABLE SHOWING CONSUMERS' OVERALL EXPERIENCE OF GETTING, OWNING AND USING A PARTICULAR MOBILE PHONE SERVICE PROVIDER

S. NO.	MOBILE PHONE SERVICE PROVIDER	NO. OF RESPONDENTS									
		EXCELLENT		GOOD		FAIR		POOR		TOTAL	
		NO.	%	NO.	%	NO.	%	NO.	%	NO.	%
1	VODAFONE	9	3.6	30	12	2	0.8	0	0	41	16.4
2	AIRTEL	21	8.4	47	18.8	4	1.6	1	0.4	73	29.2
3	RELIANCE	3	1.2	14	5.6	2	0.8	2	0.8	21	8.4
4	BSNL	14	5.6	66	26.4	10	4	0	0	90	36
5	IDEA	3	1.2	10	4	0	0	0	0	13	5.2
6	TATA INDICOM	0	0	8	3.2	1	0.4	0	0	9	3.6
7	MTS	0	0	3	1.2	0	0	0	0	3	1.2
8	VIRGIN	0	0	0	0	0	0	0	0	0	0
9	OTHERS	0	0	0	0	0	0	0	0	0	0
TOTAL		50	20	178	71.2	19	7.6	3	1.2	250	100

Table 8 shows that out of total respondents, 71.2% respondents say that their overall experience of getting, owning and using their mobile phone service provider is good while 1.2% respondents say that it is

poor. In case of excellent experience, Airtel stands first and in case of poor experience, Reliance comes first.

TABLE NO. - 9
TABLE SHOWING CONSUMERS' SATISFACTION LEVEL REGARDING CALL TARIFFS OF THEIR MOBILE PHONE SERVICE PROVIDER WITH THE HELP OF ANOVA TEST

Service Provider	N	Mean	SD	F#	Result
Vodafone	41	2.00	0.39	1.04	NS
Airtel	73	2.11	0.49		
Reliance	21	2.05	0.50		
BSNL	90	2.18	0.46		
Idea	13	2.23	0.60		
Tata Indicom	9	2.00	0.00		
MTS	3	2.00	0.00		

For all F: df = 6, 243; *** = significant at 0.1%; ** = significant at 1%; * = significant at 5%; NS = Non-significant

Table 9 shows that to test whether there is significant difference in the satisfaction level of consumers regarding call tariffs of their mobile phone service provider, one way ANOVA is applied. The test results shown above reveals that there was non-significant difference in the satisfaction level of

consumers as far as call tariffs of their mobile phone service provider is concerned. Mean score shows that consumers of different companies are neither highly dissatisfied nor they are highly satisfied rather their satisfaction level is at the middle position (range of mean value 2.00 - 2.23) i.e. they are satisfied.

TABLE NO. - 10
TABLE SHOWING CONSUMERS' SATISFACTION LEVEL REGARDING PERIODICAL OFFERS OF THEIR MOBILE PHONE SERVICE PROVIDER WITH THE HELP OF ANOVA TEST

Service Provider	N	Mean	SD	F#	Result
Vodafone	41	1.93	0.47	1.79	NS
Airtel	73	2.16	0.37		
Reliance	21	1.95	0.50		
BSNL	90	2.09	0.47		
Idea	13	2.08	0.28		
Tata Indicom	9	2.00	0.50		
MTS	3	2.33	0.58		

Table 10 highlights that in case of consumers' satisfaction level regarding periodical offers of their mobile phone service provider, after applying one way ANOVA test, it is found that there is non-significant difference in the satisfaction level of consumers. In

this case also, consumers of different companies are neither highly dissatisfied nor they are highly satisfied rather their satisfaction level is at the middle position i.e. they are satisfied.

TABLE NO. -11
TABLE SHOWING CONSUMERS' SATISFACTION LEVEL REGARDING NETWORK COVERAGE OF
THEIR MOBILE PHONE SERVICE PROVIDER WITH THE HELP OF ANOVA TEST

Service Provider	N	Mean	SD	F#	Result
Vodafone	41	2.56	0.50	6.76	***
Airtel	73	2.41	0.62		
Reliance	21	1.95	0.67		
BSNL	90	2.04	0.50		
Idea	13	2.46	0.66		
Tata Indicom	9	2.11	0.33		
MTS	3	2.00	0.00		

Table 11 shows that as far as consumers' satisfaction level regarding network coverage of their mobile phone service provider is concerned, highly significant difference ($p < 0.001$) is found. The test data shows that the satisfaction level Vodafone, Idea and Airtel subscribers is high i.e. more than satisfied, towards highly satisfied level whereas the satisfaction level of subscribers of Tata Indicom, BSNL and MTS is at middle level. The least satisfied consumers belong to Reliance as their satisfaction level is below satisfied level.

TABLE NO. - 12
TABLE SHOWING CONSUMERS' SATISFACTION LEVEL REGARDING CUSTOMER CARE SERVICES
OF THEIR MOBILE PHONE SERVICE PROVIDER WITH THE HELP OF ANOVA TEST

Service Provider	N	Mean	SD	F#	Result
Vodafone	41	2.34	0.48	2.85	*
Airtel	73	2.19	0.52		
Reliance	21	1.90	0.62		
BSNL	90	1.98	0.62		
Idea	13	2.15	0.55		
Tata Indicom	9	2.22	0.44		
MTS	3	2.00	0.00		

TABLE NO. - 13
TABLE SHOWING CONSUMERS' SATISFACTION LEVEL REGARDING VALUE ADDED SERVICES OF
THEIR MOBILE PHONE SERVICE PROVIDER WITH THE HELP OF ANOVA TEST

Service Provider	N	Mean	SD	F#	Result
Vodafone	41	2.02	0.42	0.76	NS
Airtel	73	2.01	0.42		
Reliance	21	1.90	0.30		
BSNL	90	2.06	0.41		
Idea	13	2.08	0.49		
Tata Indicom	9	2.11	0.33		
MTS	3	2.33	0.58		

Table 12 shows that in case of consumers' satisfaction level regarding customer care services of their mobile phone service provider, significant difference ($p < 0.05$) was found. The satisfaction level of consumers regarding customer care services is high in case of Vodafone, Tata Indicom, Airtel and Idea whereas it is at middle or below middle level in case of MTS, BSNL and Reliance.

Table 13 highlights that in case of consumers' satisfaction level regarding value added services of their mobile phone service provider, after applying one way ANOVA test, it is found that there is non-significant difference in the satisfaction level of consumers. In this case also, consumers of different companies are neither highly dissatisfied nor they are highly satisfied rather their satisfaction level is at the middle position i.e. they are satisfied.

TABLE NO. - 14
TABLE SHOWING CONSUMERS' SATISFACTION LEVEL REGARDING AVAILABILITY OF THEIR MOBILE PHONE SERVICE PROVIDER WITH THE HELP OF ANOVA TEST

Service Provider	N	Mean	SD	F#	Result
Vodafone	41	2.49	0.51	4.09	***
Airtel	73	2.49	0.60		
Reliance	21	2.05	0.59		
BSNL	90	2.23	0.50		
Idea	13	2.62	0.65		
Tata Indicom	9	2.11	0.33		
MTS	3	2.00	0.00		

Table 14 shows that the consumers' satisfaction level in case of availability of their mobile phone service provider, is also found to be significantly different ($p < 0.001$). The satisfaction level regarding availability is high i.e. towards highly satisfied level in case of subscribers of Idea, Airtel and Vodafone as compared to other companies. Though the satisfaction level of consumers regarding availability is above satisfied level in case of remaining mobile phone service providers.

Table 15 shows reveals that as far as consumers' satisfaction level regarding easy processing of their mobile phone service provider is concerned, non-significant difference is found. Mean score (range of mean value 2.00 - 2.38) shows that consumer of different mobile phone service providers are satisfied with the easy processing as their satisfaction level is towards highly satisfied point.

TABLE NO. - 15
TABLE SHOWING CONSUMERS' SATISFACTION LEVEL REGARDING EASY PROCESSING OF THEIR MOBILE PHONE SERVICE PROVIDER WITH THE HELP OF ANOVA TEST

Service Provider	N	Mean	SD	F#	Result
Vodafone	41	2.37	0.49	1.47	NS
Airtel	73	2.38	0.54		
Reliance	21	2.14	0.57		
BSNL	90	2.19	0.54		
Idea	13	2.23	0.60		
Tata Indicom	9	2.33	0.50		
MTS	3	2.00	0.00		

TABLE NO. - 16
TABLE SHOWING CONSUMERS' SATISFACTION LEVEL REGARDING THE PROCESS OF SOLUTION
OF THEIR QUERIES AND PROBLEMS WITH THE HELP OF ANOVA TEST

Service Provider	N	Mean	SD	F#	Result
Vodafone	41	2.07	0.26	1.19	NS
Airtel	73	2.11	0.61		
Reliance	21	1.81	0.68		
BSNL	90	1.94	0.68		
Idea	13	2.00	0.41		
Tata Indicom	9	2.00	0.00		
MTS	3	2.33	0.58		

Table 16 shows that in case of consumers' satisfaction level regarding the process of solution of their queries and problems, statistically non-significant difference is found. Mean score shows that consumer of different mobile phone service providers are neither highly satisfied nor highly dissatisfied with the process of solution of their queries and problems.

SUGGESTIONS

The following suggestions can be given after detailed and careful investigation of the research problem. These suggestions would definitely help the mobile phone service providers to enhance their subscriber base by delivering consumer satisfying services:

- All the mobile phone operators should emphasis more on the postpaid plans by making consumers aware about the unique features of the plan and reducing monthly rentals.
- Advertising campaigns focusing on family members and friends should be aggressively aired so that they can create new customers for the company among their family members, relatives and friends.
- Use of SMS, Voice mail and Internet among subscribers is very less and therefore, the use and features of these services should be promoted among subscribers through advertisements.
- Call tariff is the most influencing factor which induced consumers to buy a particular mobile phone operator. Therefore, call rates should be made competitive and affordable in order to capture more consumers.
- BSNL especially should revise their call rates as per the competition prevailing because their call rates are still very high in comparison to other mobile phone operators.
- Major efforts should be made in the area of improvement in the network coverage of mobile operators especially by BSNL and Reliance.
- As most of the consumers are unaware of the value added services offered by mobile phone service providers, aggressive advertisements and schemes should be launched to create awareness and promote the use of these services.
- All the mobile phone operators should launch more and more periodical offers from time to time especially by BSNL.
- Customer care services play an important role in retaining consumers. Therefore, customer care services should be improved and there should be provisions of taking feedback from consumers so that necessary steps can be taken in this direction.
- Mobile phone operators should launch some schemes exclusively for senior citizens, housewives and students.
- Necessary steps should be taken especially by BSNL and Reliance in solving the problems of poor network, call drop and poor clarity. It is recommended that they should install more towers in order to have large network coverage area which ultimately brings clarity in network area.
- The process involved in taking new connection should be simplified and made easy.

- The products and services especially recharge coupons of BSNL, MTS and Idea should be easily available and for that purpose, they should expand their retail base.
- The products and services especially recharge coupons of BSNL, MTS and Idea should be easily available and for that purpose, they should expand their retail base.

CONCLUDING REMARKS

In India, a number of cellular companies competing to provide efficient and quality services to their customers. Government and private operators are competing at close margin and are trying to provide multiple value added services to people. Hence the cellular operators should strive to provide cost effective quality equipments, affordable and competitive call tariffs for connectivity at various levels and customized services in order to satisfy and delight their consumers.

The study in hand reveals that consumers prefer a particular mobile phone service provider on the basis of call tariffs, network coverage and value added services. The consumers are highly influenced by their family members, friends and advertisement while selecting or buying a mobile phone service provider. It is concluded from the study that consumers prefer prepaid plans and all most every consumer treat their mobile phone as a necessity. They generally use their mobile phone for their personal use and for both incoming and outgoing calls. The study reveals that BSNL is the most preferred mobile phone service providers among consumers followed by Airtel and Vodafone.

It is concluded from the study that majority of consumers are aware about the services offered by their mobile phone operators. The study also reveals that consumers are satisfied with the services offered by their mobile phone operators. Sometimes, consumers face problems of poor clarity, call drop and poor network but overall they are satisfied with the services offered to them. The consumers are satisfied with the call tariffs, network coverage and periodical offers except those offered by BSNL and Reliance. The study says that consumers are satisfied with the process of solution of their problems and queries.

The significance development in this field in the past ten years shows that there is a very bright scope for expansion and modernization in cellular area with a very short span of time. Thus, mobile phone service providers have to understand the ever changing

preferences and the behaviour of consumers constantly in order to serve them better and satisfy them. In this age of ever increasing competition, it is very important for mobile phone operators to keep a constant eye on preferences and behaviour of their consumers in order to capture the large untapped market both in rural and urban areas of India.

REFERENCES

Philip Kotler (2008) "Marketing Management" (Eleventh Edition), Pearson Education Inc., Singapore.

Ravi Shanker (2007) "Services Marketing: The Indian Perspective", Excel Books, New Delhi.

Donald S. Tull & Del I. Hawkins (2008) "Marketing Research: Measurement & Methods" (Twelfth Edition), Prentice Hall of India Pvt. Ltd., New Delhi.

C. R. Kothari (2009) "Research Methodology: Methods & Techniques" (Second Revised Edition), New Age International Publishers, New Delhi.

Jim Blythe (2002) "The Essence of Consumer Behaviour", Pearson Education Inc., Singapore.

Berry, T.E (2001) "Marketing: An Integrated Approach", CBS International Editors, Japan

Journal of Management Research

Indian Journal of Marketing

The ICFAI Journals of Services Marketing

Web Resources :

www.google.com

www.wikipedia.com

www.hindubusinessline.com

www.trai.gov.in

www.moneycontrol.com

www.vodafone.in

www.airtel.in

www.rcom.co.in

www.bsnl.co.in

www.tatateleservices.com

www.ideacellular.com

www.mtsgsm.com

www.virgin.com

www.wirelessintelligence.com

ANALYSIS OF SERVICE QUALITY GAP AND CUSTOMERS' SATISFACTION IN PRIVATE BANKS

Dr. S.P. Singh*
Ms. Sunayna Khurana**

Table of Contents

- Abstract
- Objectives of the Study
- Review of Literature
- Methodology
- Hypothesis
- Findings and Discussion
- Hypothesis Testing
- Conclusion and Implication
- Limitations and Future Research
- References

ABSTRACT

In ever increasing intense competition, providing service quality is vital for banks to compete. The objectives of this research paper are to investigate the level of service quality of private banks from the customers' perspective and assessing their satisfaction of services Private Banks provide. A sample of 300 bank customers of private banks in Hissar district was selected by random sampling technique. A survey questionnaire, based on widely accepted SERVQUAL model, consisting of 22 items measuring customers' understanding, service standards, service performance, communications and service quality was administered. A descriptive statistics analysis was used to analyze the data collected. The results indicated that the quality of services private banks provide was below customers' expectations.

Keywords: Banks, Expectations, Perceptions, Satisfactions, Service Quality

OBJECTIVES OF THE STUDY

The main objectives of this study were to examine the level of service quality in Private banking industry from the perspective of bank customers. The specific objectives were as follows:

1. To examine Gender wise customers' expectations and perceptions of service quality provided by the

Private banks in Hissar District

2. To identify whether there is difference in expectation & perception of service quality of male & female customers
3. To identify the main attributes of service quality in which male & female (separately) are more satisfied or dissatisfied.

REVIEW OF LITERATURE

Defining and measuring quality in services might be difficult due to the intangible nature of the service offering. The researches on service quality have been carried out within the framework of widely accepted service quality SERVQUAL instrument. (Parasuraman et. al.(1985, 1988, and 1991). Since then, many researchers have used the 22-items scale to study service quality in different sectors of the service industry including financial institutions (Gounaris et. al. 2003; Arasli et. al. 2005).

The service quality model was derived from the magnitude and directions of five gaps as follows:

Gap 1 (Understanding): the difference between customer expectations and management perceptions of customer expectations

Gap 2 (Service Standards): the difference between service quality specifications and management perceptions of consumer expectations.

Gap 3 (Service Performance): the difference between service quality specifications and the service actually delivered.

Gap 4 (Communications): the difference between service delivery and what is communicated about the service to customers.

Gap 5 (Service Quality): The difference between customer expectation of service quality and customer perception of the organization's performance.

Gaps 1 to 4 affect the way service is delivered and these four gaps lead to Gap 5. Therefore, the extent of

*Head & Dean, Faculty of Management Studies, Gurukul Kangri University, Haridwar email:spsingh1952@yahoo.com
**Research Scholar, Chandigarh Bussiness School, Chandigarh

Gap 5 depends on the size and direction of these four gaps (Gap 1, Gap 2, Gap 3 and Gap 4).

Customer Satisfaction

Early concepts of satisfaction research have defined satisfaction as a post choice evaluative judgment concerning a specific purchase decision (Churchill and Sauprenant 1992; Oliver 1980). Most researchers agree that satisfaction is an attitude or evaluation that is formed by the customer comparing their pre-purchase expectations of what they would receive from the product to their subjective perceptions of the performance they actually did receive (Oliver, 1980). Further, "Satisfaction is a person's feelings of pleasure or disappointment resulting from comparing a product's perceived performance (or outcome) in relation to his or her expectations". (Kotler, 2000, p.36). Customer satisfaction is a collective outcome of perception, evaluation and psychological reactions to the consumption experience with a product/service. (Yi, 1990).

Satisfaction Formation

In marketing literature (e.g. Churchill and Surprenant, 1982; Oliver 1980) as well as recent information system studies (e.g. McKinney et al., 2002), the disconfirmation theory emerges as the primary foundation for satisfaction models. According to this theory, satisfaction is determined by the discrepancy between perceived performance and cognitive standards such as expectation and desires. Oliver (1980) described the process by which satisfaction judgments are reached in the expectancy-disconfirmation framework. Buyers form expectations of the specific product or service before purchase and perceived quality level which is influenced by expectations (Khalifa and Liu 2003). Customer expectation can be defined as customer's pretrial beliefs about a product (McKinney, Yoon and Zahedi 2002). Expectations are viewed as predictions made by consumers about what is likely to happen during impending transaction or exchange (Zeithaml 1988). Perceived performance is defined as customer's perception of how product performance fulfills their needs, wants and desire (Cadotte et al. 1987). Perceived quality is the customer's judgment about an entity's overall excellence or superiority (Zeithaml 1988). Disconfirmation is defined as customers' subjective judgments resulting from comparing their expectations and their perceptions of performance received ((McKinney et al. 2002, Spreng et al. 1996). Ho and Wu (1999) identified five antecedents of customer satisfaction appropriate for online shopping.

These are logistical support, information and technical characteristics, home page presentation and product characteristics. Eastin (2002) presented the model (see figure 6) that demonstrate the adoption of four ecommerce activities currently available to Internet users: (1) online shopping, (2) online banking, (3) online investing, and (4) electronic payment for an Internet service (i.e., access to exclusive sites). Eastin also explained six attributes common to the model. These are – perceived convenience and financial benefits, risk, previous use of the telephone for a similar purpose, self efficacy, and Internet use and all six attributes play a significant role in the adoption processes.

METHODOLOGY

A sample of 300 respondents having at least one saving account in private sector bank was selected by Quota sampling technique (50% Males & 50% Females). A questionnaire consisting of 22 items based on SERVQUAL model was administered on the sample.

The questionnaire was divided into 4 sections. The first section measured the expectations (E) of service quality in the private banks, the second, perception (P) of service quality private banks in Hissar District provide. The third section dealt with the respondents' satisfaction levels and lastly the demographic profile of the respondents. A five-point Likert Scale ranging from strongly disagree = 1 to strongly agree = 5, was used to measure the 22 attributes relating to five dimensions.

Statistical Package for Social Science (SPSS) 10.5 version was used to analyse the data set. A frequency distribution was used to describe the sample. The mean and standard deviations of the attributes were also computed. Independent t-tests were used to test the significant difference between sample means.

HYPOTHESIS

H1: There is no significant difference in service quality gaps (G1-G22) perceived by Male & female customers.

H3: There is no significant difference in satisfaction level related to Personal Contacts of Bank Employees compared between Male & female.

H4: There is no significant difference in satisfaction levels related to Quality of Banking Services when compared between Male & female.

H2: There is no significant difference in overall satisfaction of Male & female customers.

FINDINGS AND DISCUSSION

Analysis of Demographic Profiles of Respondents

After doing cross tabulation between gender and occupations, it was found that out of 150, 35 male respondents belonged to business class & 115 belonged to service class. In female respondents, 47 belonged to business class & 103 belonged to service class (Table 1)

Table 1: Occupation *Gender Cross Tabulation Count

		Gender		Total
		MALE	FEMALE	
Occupation	Business	35	47	82
	Service	115	103	218
Total		150	150	300

Table 2 cross tabulates age & gender. It was found that out of 300, 86 respondents belonged to age group of 26-30, 69, to 31-25 age group, 54 to 36-40, 18 to 41-45 and 3 to 46-50 age group.

Table 2: Age *Gender Cross Tabulation Count

		Gender		Total
		MALE	FEMALE	
Age	Upto 25	32	38	70
	26-30	42	44	86
	31-35	32	37	69
	36-40	31	23	54
	41-45	13	5	18
	46-50		3	3
Total		150	150	300

Analysis of Service Quality Gap (Gap 5)

Service quality gap analysis was carried out done to measure the gender wise gap between the customers' expectations and their perception of the commercial banking industry, based on the 22 attributes pertaining to service quality. It was found that the highest service quality gap (-1.19) in case of male was in attribute A20 (Bank staff giving customers best interest at heart) & in female (-1.20) was in attribute A21 (Personal attention given) & lowest service quality gap (-0.64) in case of male was in attribute A3 (Materials associated with My Bank's service (such as ATM card, debit cards, catalogs, or statements) are visually appealing.) & in female (-0.67) was in attribute A1 (My Bank has modern-looking equipment and fixtures).

HYPOTHESIS TESTING

Hypothesis 1: There is no significant difference in quality of services private banks provide to male and female customers.

The data for all the attributes was subjected to the Independent Sample t-test. The Lavene's test for Equality of variances was applied. The F-statistic value had p-values of more than 0.05 for all the attributes, excepts A2, A5, A7, A8, A9, A11, A12, A13 & A15. This explains that for all the attributes except these 9, the null hypotheses were accepted. This supported the use of the pooled variance t-test for each of these to test the equality of means. The associated values of significance (p-value), were again more than 0.05, except for 7 attributes (A1, A2, A9, A11, A12, A17 & A21). This led to conclude that for all the attributes, except 7, the null hypotheses were accepted & the differences in the means were not found to be significant. (Table no.3)

Hypothesis 2: There is no significant difference in overall satisfaction level when compared between male & female respondents.

The data for overall satisfaction was subjected to the independent sample t-test. The Lavene's test for Equality of variances was applied. The F-statistic value had p-values of more than 0.05 (0.926). The null hypothesis 2 was accepted. This supported the use of the pooled variance t-test to test the equality of means. The associated values of significance (p-value), was again more than 0.05 (0.252) the null hypothesis accepted. This leads to conclude that there is no significant difference in overall satisfaction level of male & female respondents. (Table 4)

Hypothesis 3: *There is no significant difference in satisfaction level of personal contacts of bank employees between male & female customers.*

The data for satisfaction level related to personal contacts of bank employees was subjected to the Independent Sample t-test. The Lavene's test for Equality of variances was applied. The F-statistic value had p-values of more than 0.05 (0.978), this meant that the null hypothesis 3 was accepted. This supported the use of the pooled variance t-test to test the equality of means. The associated values of significance (p-value), was again more than 0.05 (0.105). It is, therefore concluded that there is no significant difference in satisfaction level of personal contacts of bank employees between male & female respondents. (Table 4)

Table 3: Hypothesis testing- H_1

S. No	Attributes	Sample	Gap (E-P) Mean	Std. Deviation	F	Sig.(p)	t-value	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
										Lower	Upper
		Gender									
A1	My Bank has modern-looking equipment and fixtures.	Male	-0.84	0.72	1.713	0.192	2.134	0.034	0.17	0.01	0.33
		Female	-0.67	0.68							
A2	The physical facilities at My Bank are visually appealing	Male	-0.95	0.75	5.585	0.019	2.049	0.041	0.18	0.01	0.35
		Female	-0.77	0.77							
A3	Materials associated with My Bank's service (such as ATM card, debit cards, catalogs, or statements) are visually appealing.	Male	-0.64	1.26	0.425	0.515	-0.465	0.642	-0.07	-0.35	0.22
		Female	-0.71	1.22							
A4	Neat appearance of Bank staff	Male	-0.71	0.74	2.04	0.154	0.227	0.821	0.02	-0.15	0.19
		Female	-0.69	0.79							
A5	Bank staff keeping promise	Male	-0.97	0.76	6.416	0.012	0.131	0.896	0.01	-0.19	0.21
		Female	-0.95	0.99							
A6	Sincere interest in solving customers' problems	Male	-1.01	0.72	2.729	0.1	-0.454	0.65	-0.04	-0.21	0.13
		Female	-1.05	0.8							
A7	When My Bank promises to do something by a certain time, it will do so	Male	-1.01	0.58	15.911	0.000	0	1	0	-0.16	0.16
		Female	-1.01	0.79							
A8	My Bank insists on error-free sales transactions and records	Male	-0.95	0.52	27.169	0	1.185	0.237	0.09	-0.06	0.23
		Female	-0.86	0.73							
A9	Sales person in My Bank give prompt service to customers	Male	-1.00	0.6	11.945	0.001	2.182	0.03	0.16	0.02	0.3
		Female	-0.84	0.67							
A10	Bank staff performing services right the first time	Male	-1.01	0.58	3.609	0.058	0.754	0.451	0.05	-0.09	0.19
		Female	-0.96	0.64							
A11	Bank staff telling customers exactly when services will be performed	Male	-1.00	0.66	12.305	0.001	2.899	0.004	0.23	0.07	0.39
		Female	-0.77	0.74							
A12	Bank staff willingness to help	Male	-1.00	0.68	10.152	0.002	2.552	0.011	0.21	0.05	0.37
		Female	-0.79	0.73							
A13	Prompt response from Bank staff	Male	-0.97	0.74	4.682	0.031	1.945	0.053	0.17	0.00	0.35
		Female	-0.79	0.81							
A14	Behaviors of Bank staff instill confidence in customers	Male	-0.81	0.8	0.328	0.567	-0.904	0.367	-0.08	-0.25	0.09
		Female	-0.89	0.73							
A15	Customers feel safe in their transactions	Male	-0.83	0.52	11.985	0.001	0.665	0.506	0.05	-0.09	0.18
		Female	-0.79	0.68							
A16	Friendliness and courtesy of Bank staff	Male	-1.04	0.69	2.446	0.119	0.436	0.663	0.03	-0.12	0.18
		Female	-1.01	0.63							
A17	Bank staff having knowledge to answer questions	Male	-1.12	0.74	0.813	0.368	2.476	0.014	0.21	0.04	0.37
		Female	-0.91	0.7							
A18	Individual attention given by Bank staff	Male	-0.98	0.69	0.54	0.463	-1.02	0.308	-0.08	-0.23	0.07
		Female	-1.06	0.67							
A19	Convenient operating hours	Male	-0.87	0.64	0.005	0.941	0.945	0.346	0.07	-0.07	0.21
		Female	-0.80	0.58							
A20	Bank staff giving customers best interest at heart	Male	-1.19	0.62	1.875	0.172	1.608	0.109	0.11	-0.03	0.25
		Female	-1.07	0.6							
A21	Personal attention given	Male	-1.04	0.68	3.339	0.069	-2.038	0.042	-0.16	-0.31	-0.01
		Female	-1.20	0.68							
A22	Understanding the specific needs of customers	Male	-0.94	0.83	1.89	0.17	1.256	0.21	0.13	-0.07	0.33
		Female	-0.81	0.92							

Hypothesis 4: *There is no significant difference in satisfaction levels related to Quality of Banking Services when compared between male & female respondents.*

The data for satisfaction level related to Quality of Banking Services was again subjected to the Independent Sample t-test. The Levene's test for Equality of variances was applied. The F value had p-values of less than 0.05 (0.014), this meant that the null hypothesis 4 get rejected. Since the associated values of significance (p-value) was more than 0.05 (0.267), the null hypothesis 4 was accepted. It is therefore concluded that there is no significant difference in satisfaction levels related to Quality of Banking Services when compared between Male & female. (Table 4)

greater the need to improve the level of service quality. The study also found that male customers are dissatisfied with attributes like "Bank staff giving customers' best interest at heart", on the other side females are dissatisfied with other attributes as "Personal attention given by bank employees". This means that banks have to give more importance to such attributes and must take steps to reduce the service quality gap. The study noted that perception & expectation of males & females related to 15 attributes of service quality are same. This explains that these fifteen attributes are of importance for both group of customers (male & female).

Related to overall satisfaction with the banks services, it was also found that male customers are

Table 4: Hypothesis testing- H_2 , H_3 , H_4

	Sample	Mean	Std. Deviation	Levene's Test for Equality of Variances		t-test for Equality of Means					
				F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
	Gender									Lower	Upper
Overall satisfaction	Male	3.43	.69	.009	.926	1.147	298	.252	.09	-.06	.25
	Female	3.33	.72								
Personal Contact	Male	3.18	1.03	.001	.978	-1.628	298	.105	-.19	-.43	.04
	Female	3.37	1.03								
Quality of Banking Services	Male	3.87	.77	6.080	.014	-1.113	298	.267	-.11	-.30	.08
	Female	3.97	.89								

CONCLUSION AND IMPLICATION

The results of Gap 5 analyses showed that customers' perception for private banks in Hissar District was lower than their expectations. In attributes like "Bank staff giving customers best interest at heart", "Personal attention given", "Friendliness and courtesy of Bank staff", "When My Bank promises to do something by a certain time, it will do so", "Individual attention given by Bank staff", the service quality gap were high (more than -1.00). The bigger is the gap the

little more satisfied than female customers as the mean value of satisfaction level of male (3.43) is more than the mean value of satisfaction level of female customers (3.33). The study also revealed that there is no significant difference between the Satisfaction level of male & female customer related to Overall satisfaction, Personal Contacts of bank employees and Quality of Banking Services. This means that bank customers whether they are male or females are just satisfied with services of private banks. They have more expectations with banks. Therefore the Private Banks

should adopt measures to reduce the service quality gaps specially related to attributes likes "Bank staff giving customers best interest at heart", "Personal attention given", "Friendliness and courtesy of Bank staff", "When My Bank promises to do something by a certain time, it will do so" and "Individual attention given by Bank staff".

LIMITATIONS AND FUTURE RESEARCH

The main limitation of this study is that it was conducted for a single district. Further research may be conducted on a wider sample. This would provide more generalized conclusions for the private banks. Additionally, since India aspires to become globally competent financial centre, it would be appropriate and relevant to replicate the study using global samples. The implication is that when banks in this country provide services to global customers such as business travelers, tourists, students, they would have to provide quality services to foreign customers. Therefore, the quality and customer satisfaction issues attached to services are subject to international domains.

REFERENCES

- Arasli H., Mehtap-Smadi S., and Katircioglu S. T., 2005, "Customer Service Quality in the Greek Cypriot Banking Industry". *Managing Service Quality*. Vol. 15 No. 1. pp 41-576
- Cadotte, E. R., Woodruff, R.B., Jenkins, R.L., (1987), "Expectations and norms in models of consumer satisfaction". *Journal of Marketing Research*. 24(3) 305-314.
- Churchill, G. A., and Surprenant, C., (1992) "An Investigation into the Determinant of Customer Satisfaction", *Journal of Marketing Research*, Vol.19, pp.491-504. *Research Strategy in Studies of Information Systems*, MIS Quarterly, 1989, pp.33-50
- Gounaris S. P. Stathakopoulos V. and Athanassopoulos A. D., 2003, "Antecedents to Perceived Service Quality: An Exploratory Study in the Banking Industry", *International Journal of Bank Marketing*, Vol. 21 no. 4, pp. 168-190.
- Khalifa, M. and Liu, V. (2003), "Determinant of satisfaction at different adoption stages of internet – based services" *Journal of the association for information systems* Vol.4 NO. 5, PP. 206-232/October
- Kotler, P. (2000), *Marketing Management*, International Edition, Prentice-Hall, Englewood Cliffs, NJ.
- McKinney, V., Yoon, K., Zahedi, F.M., (2002) "The Measurement of Web-Customer Satisfaction: An expectation and Disconfirmation Approach" *Information System Research*, Vol.13, No. 3, September, pp.296-315.
- Oliver, R.L., (1980) "A cognitive model of the antecedents and consequences of satisfaction decisions" *Journal of Marketing Research*, Vol. XVII, November.
- Parasuraman. A., Berry L. and Zeithmal V., 1985. "A Conceptual Model of SQ and Its Implications for Future Research", *Journal of Marketing*. 49(3). pp. 41-50.
- Parasuraman. A., Berry L. and Zeithmal V., 1988, "SERVQUAL: A Multi-item Scale for Measuring Consumer Perceptions of SQ", *Journal of Retailing*, 64(2). pp. 12-40.
- Parasuraman. A., Berry L. and Zeithmal V., 1991, *Perceived Service Quality as a Customer-based Performance Measure: An Empirical Examination of Organizational Barriers Using an Extended Service Quality Model*. *Human Resource Management*. 30(3). pp. 335-364.
- Spreng, R.A., Mackenzie, S.B., & Olshavky, R.W., (1996), "A reexamination of the determinants of customer satisfaction." *Journal of Marketing*, Vol.60, Issue 3. pp 15-33, July.
- Yi, Y. (1990), "A critical review of consumer satisfaction", *Review of Marketing 1990*, American Marketing Association, Chicago, IL.
- Zeithaml, V.A. (1988), "Consumer perceptions of price, quality and value: a means-end model and synthesis of evidence", *Journal of Marketing*, Vol.52, July, pp. 2-22.

EFFECTIVENESS OF PERFORMANCE APPRAISAL SYSTEM OF INSURANCE SECTOR - A STUDY OF HIMACHAL PRADESH

Dr. Kulwamt Singh Pathania*
Ashish Kumar Nag**
Anuradha D. Pathak***

Table of Contents

- Abstract
- Introduction
- Objectives of the Study
- Materials and Methods
- Results and Discussion
- Conclusion and Suggestions
- References

ABSTRACT

Performance appraisal is predominantly used as a device to measure the standards set by the management of its employees. Performance appraisal is a process of assessing, summarizing and developing the work of an employee on both qualitative as well as quantitative terms. Normally, the performance evaluation of an employee is done by his immediate senior or some expert. In this pattern, various rating systems are employed in order to recognize the potentials and deficiencies of an employee.

INTRODUCTION

Performance appraisal has been considered as the most significant and indispensable tool of an organization. It is highly useful in making decisions regarding various personal aspects such as promotion and merit increase. Performance measures also link information gathering and decision making process which provide a basis for judging the effectiveness of personnel's functions. In the eyes of the employees, the purpose of performance appraisal system is to describe their level of performance to determine the required output from them and also to provide them constructive suggestions which eventually improves their performance. From the organization's view point, one of the most important reasons for having a system of performance appraisal is to establish and maintain the 'principle of accountability'.

Performance appraisal system was started as a method for the justification of salary and wages. Every organization desires to develop a performance appraisal system, which consists of an established procedure for evaluating the work of employees on a regular basis. It is the part of the ongoing management process which purposes:

- To provide systematic planning by allowing the manager to identify critical job elements and objectives.
- To conduct a systematic review of employees' overall performance and provide constructive feedback.
- To provide objective information to guide management decisions on promotions and other issues pertaining to the same.
- To establish an objective basis for determining annual performance.

Effective appraisal system serves not only to determine how well an employee is working at his or her job, but also to decide on the ways to improve his/her performance. It describes the general policies and factors for the administration of performance in an agency. An appraisal program is a combination of specific procedures, methods, and requirements for planning, monitoring and rating performance.

Traditional and modern methods are applied to evaluate the performance of the employees. Some of the paramount methods in this regard are: confidential reports, graphics scale, paired comparison, free essay method, straight ranking, critical incident method, group appraisal, assessment centre, 360 degree performance appraisal, management by objectives and behaviorally anchored rating scales etc.

OBJECTIVES OF THE STUDY

1. To study the purposes of evaluating the performances of the employees.

*Professor in Commerce and Director, UGC-Academic Staff College, H.P University, Shimla.

**Faculty Finance, IIPS (Everonn), Shimla

***Assistant Professor, Naranlala College of Commerce & Management, Navasari, Gujarat.

2. To evaluate the existing methods of performance appraisal in Insurance Sector
3. To assess the satisfaction level of employees' towards the operational performance appraisal system and their opinion towards effective performance appraisal system.
4. To examine the role of performance appraisal in enhancing the motivational level of employees.
5. To identify the problems which create obstacles in the appraisal system and advance suggestions for making the study more result oriented.

In order to study the effectiveness of performance appraisal system, the views of employees regarding their appraisal system were considered.

Consistent with the objectives of the study, different techniques like simple percentage method, averages were used for the analysis of data. In the case of certain hypothesis, advanced statistical tool like chi square test was also used.

RESULTS AND DISCUSSION

1. Age and Purpose of Performance Appraisal

The classification of employees on the basis of the purpose of performance appraisal system in an organization and their age is detailed in table 1. The table infers that 27.2 % of the respondents perceive that the purpose of performance appraisal is for motivation, 3.2 % for identifying talents and abilities, 28 % for improvement in performance, 2.4 % for providing information on performance and 39.2 % for identifying training need. In the age group of below 30 years, 22.7 % of the respondents feel that performance appraisal increases the motivational level of employees, 9.1% for identifying the talents and abilities, 36.4 % for improvement in performance and 31.8 % for identifying training needs of the respondents.

MATERIALS AND METHODS

A sample of 125 employees was selected from different insurance companies such as LIC, ICICI Prudential and HDFC standard life etc. All the important factors affecting the performance appraisal system in insurance sector were incorporated in order to make it a representative sample. Employees were selected from each level. The ultimate sample was selected on the basis of convenient and random sampling. To study the historical background of insurance sector, secondary data was used. To make the study more relevant and authentic various sources were consulted.

Table 1 : Age and the Purpose of Performance Appraisal

Purpose of PA	Age (in Years)			
	Below 30 years	30-45 Years	Above 45 Years	Total
Motivation	10(22.7)	20(32.3)	4(21.1)	34(27.2)
Identify training needs	14(31.8)	24(32.7)	11(57.9)	49(39.2)
Identify talents and abilities	4(9.1)	-	-	4(3.2)
Improvement in performance	16(36.4)	16(25.8)	3(15.8)	35(28.0)
Provide information on performance	-	2(3.2)	1(5.3)	3(2.4)
Any other	-	-	-	-
Total	44(100)	62(100)	19(100)	125(100)

Note: figures in parenthesis depicts the % age $\chi^2 = 14.94$ $P > 0.05$

Any other* – succession planning, increase the standard of living, potential appraisal etc.

Source: Primary Probe

Similarly, 32.3 % of the respondents in the age group of 30 – 45 years think in terms of the motivational purpose, 25.8 % for improvement in performance, 3.2 % for providing information on performance and 38.7 % for identifying training needs. In the age group of above 45 years, 21.1 % of the respondents go for motivation purpose, 15.8 % for improvement in performance, 5.3 % for providing information on performance and 57.9 % for identifying training needs. With the help of this discussion, we can conclude that all employees of whether they are below 30 years, 30 – 45 years or above 45 years take performance appraisal as a tool of motivation which can be used for improvement and

enhancement in their performance. While applying χ^2 , it was found that calculated value of χ^2 test (14.94) is less than table value at the 5 % level of significance which leads to accept the null hypothesis and reject the alternative hypothesis. Thus it can be concluded that there is no significant relationship between age and purpose of the performance appraisal system.

2. Annual Incomes and the Purpose of Performance Appraisal

The classification of employees on the basis of the purpose of performance appraisal system in an organization and their annual income is enlisted in table

2. The table infers that out of 100 % of employees, 27.3 % of the respondents think that the purpose of performance appraisal is for motivation, 24.3 % for identifying training needs, 12.1 % for identifying talents and abilities, and 36.4 % for providing information on performance. In the income level of less than 50,000, 27.3 % employees believe that performance appraisal increases the motivational level of employees, 12.1 % for

identifying the talents and abilities, 36.4 % for improvement in performance and 24.3 % for identifying training needs. Similarly, 26.7 % of employees having annual income of 50,000 to 1, 00,000 go for the motivational purpose, 33.3 % for improvement in performance, 6.7 % for providing information on performance and 33.3 % for identifying training needs.

Table 2 : Annual Incomes and the Purpose of Performance Appraisal System

Purpose of Performance appraisal	Income (in Rs.)					
	Less than 50,000	50,000 - 1,00,000	1,00,000 - 1,50,000	1,50,000 - 2,00,000	Above 2,00,000	Total
Motivation	9(27.3)	4(26.7)	6(33.3)	9(42.9)	6(15.7)	34(27.2)
Identify training needs	8(24.3)	5(33.3)	9(50.0)	6(28.6)	21(55.3)	49(39.2)
Identify talents and abilities	4(12.1)	-	-	-	-	4(3.2)
Improvement in performance	12(36.4)	5(33.3)	3(16.7)	6(28.6)	9(23.7)	35(28.0)
Provide information on performance	-	1(6.7)	-	-	2(5.3)	3(2.4)
Any other	-	-	-	-	-	-
Total	33(100)	15(100)	18(100)	21(100)	38(100)	125(100)

Note: Figures in parenthesis depicts the % age $\chi^2 = 26.992$ $P < 0.05$

Any other* – succession planning, increases the standard of living, potential appraisal.

Source: Primary Probe

In the income level of 1, 00,000 to 1,50,000, 33.3 per cent go for motivation purpose, 16.7 % for improvement in performance, and 50.0 % for identifying training needs. Between 1,50,000 to 2,00,000 income levels, 42.9 go for motivation, 28.6 for identifying training needs and 28.6 for improvement in performance. In the group of above 2,00,000 income, 15.7 % employees take it for motivational purpose, 55.3 for identifying training needs and 5.3 for providing information on performance. With the help of above discussion, we can conclude that all employees, whether their annual income is 50,000, 1,00,000 or above take performance appraisal as a tool of motivation which can be used for improvements in the performance.. While applying 2, it is found that calculated value of 2 tests (26.992) is more than table value at the 5 % level of significance

which leads to reject the null hypothesis and accept the alternative hypothesis. Thus it can be concluded that there is a significant relationship between annual income and purpose of performance appraisal system.

3. Methods of Performance Appraisal System

Classification of employees on the basis of the methods of performance appraisal system adopted in their organization and their preferences to methods mentioned in table 3. The table reveals the ranks given by the employees according to their preferences. 1st rank is given to the 360 degree appraisal method with 699 points, 2nd rank to the grading system with 583 points, 3rd rank to the behavior oriented rating method with 550 points, 4th rank to the critical incident method with 499 points, 5th to the confidential reports with 430

Table 3 : Classification of Employees on the Basis of the Methods of Performance Appraisal System in an Organization and their Preferences towards the Methods

Methods	Preferences							Total	Rank
	7	6	5	4	3	2	1		
BARS	30	20	15	11	15	22	12	550	3 rd
Grading system	15	35	27	17	12	10	9	583	2 nd
Group appraisal	8	5	15	27	25	22	23	411	6 th
Any other	5	3	6	22	19	30	40	328	7 th
Critical incident method	7	20	26	18	23	28	3	499	4 th
360 degree appraisal	46	30	21	10	16	2	-	699	1 st
Confidential reports	14	12	15	20	15	11	38	430	5 th

points and 6th rank to group appraisal with 411 points and 7th rank to any other methods with 328 points. The other segment includes the checklist method, management by objective, field review method and so on.

4. Performance appraisal and motivation in

employees

The facts of the table 4 infers that 80 employees out of 125 believe that a good performance appraisal system helps in increasing the motivational level of employees in the organization and 45 employees are against of the same

Table 4: Classification of the Employees Based on their Motivation Level

Motivational level	YES	NO	TOTAL
Top level	10	20	30
Middle level	30	15	40
Lower level	40	10	50
Total	80	45	125

Source: Primary Probe

5. Problems and performance appraisal system

Classification of employees according to their problems in the performance appraisal system has been tabulated in the table 5. The table infers that 4.8

% of employees suffer from halo error, 20 % suffer from biasness, 24 % from leniency error, 4 % from similarity error and 47.2 from other errors like central tendency, negative approach, lack of knowledge, etc.

Table 5: Classification of Employees according to Their Problems When They are Appraised

Problems	Number	% age
Halo effect	6	4.8
Bias	25	20.0
Leniency	30	24.0
Similarity error	5	4.0
Any other*	59	47.2
Total	125	100.0

Source: Primary Probe

Any other:* central tendency error, recency etc

6. Respondents' opinion towards effective appraisal system

Classification of employees on the basis of the criterion that should be followed in an organization to make performance appraisal system more effective is given in the table 6 .The data in table infers the

ranks given by the employees.1st rank is given to the ongoing process with 518 points, 2nd to the aspects of the performance with 489 points,3rd to the constructive judgments with 465 points, 4th to the fair judgments with 415 points, 5th to the written records with 412 points and 6th to the others with 336 points like feedback and participation, mutual trust, clear objectives etc.

Table 6: Classification of Employees on the Basis of the Criteria that Should be Followed in an Organization to Make Performance Appraisal System More Effective

EFFECTIVE APPRAISAL CRITERIA	PREFERENCES OF EMPLOYEES						Total points	Ranking
	1 st	2 nd	3 rd	4 th	5 th	6 th		
Make it a part of ongoing process	37	28	13	20	17	10	518	1
Make specific and constructive judgments	25	28	24	17	14	17	465	3
Written records for all performance appraisal	13	17	21	17	33	24	412	5
Any other	6	11	19	23	34	32	336	6
Fair judgments	12	21	26	24	20	22	415	4
Look at overall Aspects of employees performance	30	19	20	22	10	24	489	2

Source: Primary Probe

Any other:-feedback and participation, mutual trust, clear objectives etc

7. Satisfaction level of employees

In the table 7 the employee's views about their satisfaction level are given. The table infers that 71 employees out of 125 are satisfied with their appraisal

system which includes 11 employees from the top level, 40 from the middle level and 20 from the lower level. 54 employees are dissatisfied with their appraisal system, 8 from top level, 30 from middle level and 16 from lower level.

Table 7: Employees Views Regarding Their Satisfaction Level N=125

LEVELS	SATISFIED	UNSATISFIED	TOTAL
Top level	11	8	19
Middle level	40	30	70
Lower level	20	16	36
TOTAL	71	54	125

Source: Primary Probe

CONCLUSION AND SUGGESTIONS

The study "*Effectiveness of performance appraisal system in insurance sector*" concludes that performance appraisal system is the most important tool for an organization. There are various methods which are used by the organization to appraise the performance of their employees. Government organizations mostly use annual confidential reports to appraise their employees. Private organizations use grading system and assessment methods to appraise the performance. Performance appraisal increases the motivation level of the employees. They can be effectively used for planning purposes and to identify the problems and obstacles affecting employee's performance. Performance appraisal system is important not only to ensure that an organization achieves its objectives, but also to make sure that the employees qualify the organizational requirements on regular basis. It implies a valuable prospect to focus on employment activities and goals to recognize and correct existing problems and to facilitate better future performance. Every organization has its own performance appraisal methods which are designed to evaluate the performance of employees in an organization. It also identifies the training and developmental needs. It serve not only to determine how well an employee is does his or her job, but also to decide the ways to improve the performance. Through this system, employees are motivated to work efficiently and effectively in an organization. Appraisals let know employees how they are performing and where they can improve. Appraisals help to create a system of motivation and rewards based on performance. For an effective appraisal system, mutual trust, clear objectives, standardizations, training, job relatedness, documentation, feedback and participation, individual differences, post appraisal review and appeal are some important factors which need to be considered. After studying the importance and effect of performance appraisal system, the following suggestions can be

beneficial for their future endeavours.

- Multiple sources and methods of assessment and feedback should be encouraged in organization.
- Subjectivity should be accepted as a part of life.
- Work and working culture should be made more challenging and enjoyable; position and promotion should not be associated.
- Upward feedback should be provided to subordinates to do a better job.
- Organizations should aim to foster a good work culture and ensure dignity of the diligent.
- There should be a constant innovation and revitalization in performance appraisal system.

REFERENCES

- Beaumont P.B., "Human Resource Management: Key Concepts and Skills", Publishers, sage publishers, CA, 1993, pp.100-120.
- Edward J. Inderrieden , Timothy J. Keaveny and Robert E. Allen, "Predictors of employee satisfaction with the performance appraisal process", vol 4, June 1988, Publisher Springer Netherlands, pp.306-310.
- Peter F. Drucker, "The Practice of Management", Publishers, Elsevier Ltd. (1955), London.
- Feldman JM, "Beyond attribution theory: Cognitive processes in performance appraisal", Journal of Applied Psychology, 66, (1981). pp. 127-148.
- Goss.D, "Principles of Human Resource Management", Routledge, (1994), London.
- Grint, "What's wrong with performance appraisals, A critique and suggestion", Human Resource Management Journal, (1993)", Vol. 3 No.3, pp.61-77.
- O'Driscoll, "Functions and Implementation of Performance Appraisal Systems in New Zealand Organizations" Asia Pacific Journal of Human Resources, (1993), Vol. 31, No. 1, 20-32

EXPLORATION OF INTUITIVE ABILITIES AMONGST WORKING AND ASPIRING MANAGERS

B.K. Punia*
Wricha Malik**

Table of Contents

- Abstract
- Introduction
- Literature Review
- Objectives and Methodology of the Study
- Results and Discussion
- Conclusion
- References

ABSTRACT

Intuition is the aptitude to understand or know something immediately, without conscious reasoning and intuition does not mean something contrary to reason, but something outside the prefecture of reason. The study under reference examines the intuitive abilities of working and aspiring managers on the basis of diverse demographic variables. A sample of 974 respondents (four hundred sixty five working managers and five hundred and nine aspiring managers) has been studied to reach at the results. The results of the study affirm that females are as intuitive as their male counterparts and marriage does not interfere with the intuitive abilities of the aspiring managers. The respondents with arts and professional background have scored high on intuitive abilities as compared to their counterparts from science and commerce backgrounds. Dual specialization proves more beneficial as compared to the single specialization however field of specialization does not affect the intuitive abilities of the aspiring managers. However with regard to the working managers' intuition level does not seem to differ significantly on any of the variable of the study.

INTRODUCTION

The word intuition has been driven from the Latin *intueri*, meaning to reflect on, to look on. This intuitive "look on" implies somewhat deeper than simple sensitivity and is best described as apperception, the ability to "take hold of" knowledge in one glance. Webster's Unabridged Dictionary sum up intuition as

"the immediate knowing or learning of something without the conscious use of reasoning, instantaneous apperception." Simply stated, intuition is direct knowledge. "Sudden Inclinations", "Impressions", "sure feelings", "Plain Knowing", "Gut Feeling" are all the synonyms of "Intuition". According to the Oxford English Dictionary, Intuition is the aptitude to understand or know something immediately, without conscious reasoning. In other words, research to find an answer is not needed; the answer simply comes to you. Intuition is diverse from extra sensory perception (ESP) in that intuition is based on accumulated knowledge gathered by the senses for use by the hidden mind. ESP is apperception, knowledge, or communiqué that has not been gained through the senses. The five senses comprise sight, feel, touch, taste, and hearing. Our perception of the world around us comes from using all the senses available to us.

The observable fact of 'lose one sense and the others become more powerful' is due to the subconscious focusing and relying on the remaining senses when one or more have been lost. If you were to lose your sight, your hearing would not become more acute, but rather, the subconscious would focus more concentration on the sounds being heard. According to Tesoline (2006) intuition is being more aware of what is happening day to day and being more engaged in what you do, who you are and what you are communicating. It is more about undoing the learned perception and seeing what is real. It is very different from thinking. Thinking takes efforts. Don't you get hungry after a day of thinking? Intuition actually gives you more energy. It just represents a polar shift from the way you are used to thinking about things. It is more about not thinking and letting things, ideas, information, and feelings come to you without effort. Consider how intuition used to happen in early mankind? It was a kind of visceral instinctive sense that used to warn them from dangers or predators in their environment. Likewise, if one makes small mistakes, they may go unnoticed. But over time these mistakes add up to a performance breach which become a self-limiting career, a job loss, the loss of an

*Professor & Dean, Haryana School of Business, Guru Jambheshwar of Science & Technology, Hisar, Haryana

**Research Scholar, Haryana School of Business, Guru Jambheshwar of Science & Technology, Hisar, Haryana

important client or contract and possibly, when it involves many people, the death of a whole organization or part of it. Being more intuitive will help us to anticipate these changes so that we can make decisions to go forward in different directions. Andersen (2000) has investigated to what extent managers are intuitive, and whether the intuition of managers relates to effectiveness. Based on Carl Jung's typology, he considers intuition as an element - besides sensing, thinking and feeling - in problem-solving and decision-making processes. He found that the combination of intuition and thinking as a decision-making style was the most common decision-making style. Andersen suggests that intuition as the dominant decision-making function relates to organizational effectiveness.

Carl Jung noted that intuition does not mean something contrary to reason, but something outside the prefecture of reason. It is neither a miraculous sixth sense nor a psychic process. Intuition is not the opposite of prudence nor is it a haphazard process of guessing. It is a refined form of reasoning based on "chunking" that a specialist hones over years of job-specific knowledge (Prietula & Simon, 1989). It does not come easily; it requires years of experience in analytic and is founded upon a concrete and complete grip of the details of the big business (Isenberg, 1984; Seebo, 1993). To the extent that the lessons of experience are rational and well-substantiated, so is intuition (Isenberg, 1984). Intuition means "being able to bring to bear on situation everything you've seen, felt, tasted, and experienced in an industry"[H. Ross Perot quoted in Rowan (1990:83)]. Intuition on the whole is a way of knowing, perceiving alternatives and ability to see the big picture and ability to develop a sense of what is going on and ability to act accordingly. People with high intuitive skills do especially well in crises and in the new situations that require creative reactions. The intuitive manager seems to:

- 1 Foresee the future;
- 2 Perceive possibilities in all situations;
- 3 Provide new ideas;
- 4 Deal successfully with complexities despite having insufficient or incomplete information;
- 5 Supply ingenuity; and
- 6 Motivate people to do what may have been perceived to be impossible.

LITERATURE REVIEW

Laszlo, Ervin (2009) explored that human

experience encompasses not only elements registered by the exteroceptive and interoceptive senses, but also elements received intuitively, in a direct and natural mode. Findings at the cutting edge of quantum physics and brain research support the assumption that the brain can receive information not only through nerve-signals conducted from the senses but also through quantum significance at the level of cytoskeletal structures. Confirmation of this hypothesis would provide a physical foundation for the spontaneous intuitions that surface infrequently in consciousness. Recognizing that some varieties of intuitions are authentic perceptions of the world beyond the brain and body would broaden our view of the scope of human experience and support assumptions about the existence of fine informational ties between humans, as well as between humans and nature. Albrechtsen, Meissner and Susa (2009) examined the role of processing style (intuitive vs. deliberative processing) in a deception detection task. In the first testing a thin slicing operation was used to demonstrate that intuitive processing can lead to more accurate judgments of deception when compared with usual deliberative forms of processing. In the second testing, participants who affianced in a derived (concurrent) task performed more accurately in a deception detection task than participants who were asked to provide a verbal justification for each decision and those in a control condition. Overall, the results congregate to suggest that intuitive processing can significantly improve deception detection performance.

According to Thomas, N., Trevor, K., Eddy, N. (2009) one shouldn't conclude that people who are extraverts have compatibility intuitions in general. Supporting this outlook is our own finding that in cases that are not highly affectively significant extraversion ceases to have a significant effect on intuitions about free will, deliberation, and deterrence-based responsibility. In light of our preface results, we consider that much more research needs to be done not only to determine which personality traits might be predictive of intuitions about freedom and responsibility, but also to explore the contextual conditions in which these relationships exist and the extent to which these relationships between personality and intuitions are direct or indirect. Antle, Corness, Droumeva and Milena (2009) explained that one of the claimed benefits of personified interaction is that it is an intuitive form of human-computer interaction. While this claim seems to be widely accepted, only some studies investigated the underlying cognitive mechanisms of intuition in the context of tangible and embedded interaction design. What is intuitive interface? What makes an interface

intuitive to use? We investigate these questions in the context of a responsive auditory environment. This paper reports on an exploratory study in which the researchers compared two interaction models for the same system in order to explore the idea that incorporating a personified symbol in the interaction model may make a system more intuitive to use. Zeldi Jones (2009) explored that as project management becomes an acknowledged science and a highly demanded skill set, a wide variety of profitable tools have been developed to assist in managing projects. Intuition is a free Project Management tool that is largely unexploited. When used in permutation with existing experience and knowledge, intuition can produce a unique and powerful strategic decision making project management tool. Intuition has been defined as 'understanding without evident effort'.

Harteis, Koch and Morgenthaler (2008) studied Intuition and then defined it as the capability to act or decide appropriately without deliberately and consciously balancing alternatives, without following a certain rule or routine, and possibly without awareness. Gigerenzer (2007); Hogarth (2001); Klein (2003); and Myers (2002) described intuition as action which is quick e.g. reaction to a challenging situation and surprising, in the sense that it is extraordinary in performance level or shape. This paper aims at the state of research on intuition, discussing the relevance of different approaches for analyzing work performance, and describing challenges for future empirical research in the domain of professional working life. Joseph Klein (2006) presented a comparison of the effectiveness of educational decisions taken by means of a holistic-intuitive procedure and a computerized decision support system (DSS) that promote systematic and accurate judgment. Two groups of teachers were asked to solve an educational problem, first using the holistic procedure and a second time with the DSS program. Each group was given identical problems but at different levels of complexity. The findings confirm the hypotheses. The intuitive and computerized methods bring out similar results when the question to be resolved is simple. However, in problems involving complex reasoning, the two procedures capitulated different solutions. The study throws light on the cognitive processes that define each decision-making approach. The findings help in determination of optimal decision-making procedures for different types of educational situations.

Michael J. Frank, Et al. (2006) had explored that people often make logically sound decisions using

explicit reasoning strategies, but sometimes it pays to rely on more implicit "gut-level" intuition. The transitive inference archetype has been widely used as a test of explicit logical reasoning in animals and humans, but it can also be solved in a more implicit manner. Some researchers have argued that the hippocampus supports relational memories vital for making logical inferences. Here we show that the benzodiazepine midazolam, which inactivates the hippocampus, causes profound explicit memory deficits in healthy participants, but enhances their ability in making implicit transitive inferences. These results are consistent with neuro-computational models of the basal ganglia-dopamine system that learn to make decisions through positive and negative reinforcement. We suggest that disengaging the hippocampus explicit memory system can be advantageous for this more implicit form of learning.

Lynch M. and M. Metcalfe, (2006) suggested that sensory inputs (experiences) are reflected off specific concepts, either intuitively or explicitly. They argue that it may help to distinguish two types of reflection, 'intuitive reflection' and 'concept reflection'. The former involves reflection without an overt and formal process of selecting and considering the concept (idea, stance) that is to be used to reflect on a past sensory experience. Explicit notion reflection involves selecting a specific concept against which to reflect. The reflection literature is revisited by means of this distinction. Without a clearer understanding of the practical position on thinking as reviewing, the useful pluralist and emancipator implications of using reflection are in danger of being missed. Singer, Peter (2005) described that for over many decades, philosophers have speculated about the genesis of ethics. Current research in evolutionary psychology and the neurosciences has drop light on that question. But this research also has normative implication. A standard way of arguing in opposition to a normative ethical theory is to show that in some conditions the theory leads to judgments that are contrary to our common moral intuitions. Yet, these moral intuitions are the biological excess of our evolutionary history; it is not clear why we should regard them as having any normative force. Research in the neurosciences should therefore direct us to review the role of intuitions in normative ethics.

OBJECTIVES AND METHODOLOGY OF THE STUDY

Though the primary purpose of this research has been to study the intuition level of working and aspiring managers yet the specific objective of the proposed research has been as under:

- To study the intuitive abilities of working and aspiring managers according to different personal and demographic variables.

Based upon the above mentioned objective, hypothesis set for the proposed research has been:

- There is no significant difference in the intuitive abilities of the working and aspiring managers according to the different personal and demographic variables.

Since the present study is devoted to explore and describe the intuition of working and aspiring managers, so a descriptive-cum-exploratory research design has been adopted in the present investigation. The designs aim at obtaining the pertinent and precise information concerning the current status of phenomena and whenever possible to draw valid general conclusions from the facts discovered. In order to attain this objective, a systematic plan was followed and the study is based upon primary data with following variables:

Dependent Variables: Intuition

Independent Variables: Demographic Variables

Most of the educational phenomena consist of a large number of units. It would be impracticable, if not impossible, to test, to interview or observe each unit of population under controlled condition in order to arrive at principal having universal validity. Thus, a relatively small number of individuals, objects or events are selected and analyzed in order to find out something about the entire population from which it was selected. In this study the researchers used the random sampling method. In random sampling method, each unit of the population is given an equal chance of being selected. The selection of units from the population is done in such a manner that every unit in the population has an equal chance of being chosen, and the selection of any one unit is in no way tied to the selection of any other. To make the study viable the sample size for the present investigation was confined to 974 working and aspiring managers across Haryana and Metro/NCR (Delhi) consisting of four hundred sixty five working managers and five hundred and nine aspiring managers. Due care was taken to make the sample representative of the universe of the study.

In order to collect the relevant data from the respondents, the researchers used a well designed and standardized questionnaire "How much Intuitive

Ability You Are" developed by W.H.Agor (1989). The scale has 12 items and the mode of response to each of the item of the inventory is restricted in the form two alternative statements. The respondents have to choose any of a these two forced alternatives i.e. either "a" or "b", indicating complete agreement or disagreement with the chosen statements respectively. The highest possible intuition score is 12 and the lowest is 0. The data collected on various aspects of the problem appeared unorganized, haphazard and complex in raw state. The classification, coding and tabulation have been used to arrange the raw data in an understandable form. Such an array of classification, coded and tabulated data has been analyzed by using statistical tools like mean, standard deviation, t-test, F-test (ANOVA). Test of significance has been used to test the hypothesis.

RESULTS AND DISCUSSION

At every step/stage of life we need to take decisions. While deciding about anything we all use our intuitive abilities. Intuition in this regard is not an irrational thing; intuition does not denote something divergent to reason, but something outside the area of reason. It is neither a magical sixth sense nor a paranormal process. Intuition is not the opposite of rationality, nor is it a hit and miss process of guessing. It is a refined form of way of thinking based on an expert's learning over years of job-specific as well as daily life experience. It does not come very easily; it demands years of experience in problem-solving and is founded upon a solid and complete grip of the details of the business and the life as well. That is why intuition is as logical and well-founded as the lessons of experience are. Intuition on the whole is a way of knowing, perceiving alternatives and ability to see the big picture and ability to develop a sense of what is going on and ability to act accordingly. People with high intuitive skills do especially superb in crises and in the new situations that require creative and immediate reactions. So is the case of the managers, those who are more intuitive seems to smell the future happenings very early, they always have more alternative of all situations, they come up with new ideas, deal successfully with complexities despite of having insufficient or incomplete information, provide uniqueness and motivate people to go for those ventures which may have been apparently seems to be unattainable. The combination of intuition and thinking as a decision-making style is perceived to be the most common decision-making style.

This part of the study contemplates that whether all this is just theoretical or authentic. Keeping

this view the researchers selected this topic for further investigation to see what those factors are which proves a manager more effective in comparison to others and to what extent the demographic variables affect the intuitive abilities of working and aspiring managers. Hence the study is divided in two sub-parts;

- The intuitive abilities of aspiring managers according to demographic variables.
- The intuitive abilities of working managers according to demographic variables.

There are certain assumptions in the social setup that demographic variables affect the level of intuitive abilities. To ascertain this assumptions whether the demographic variables have any impact on the intuitive abilities, the significance level has been calculated by applying t-test and ANOVA.

Intuitive abilities of Aspiring Managers according to Demographic Variables

Table-1 depicts the respondents' (aspiring managers) views on their intuitive abilities on the basis of demographic variables. Men and women are two equal partners of the society and even Indian constitution does not permit to discriminate on the basis of sex. However, Indian women generally have to face discrimination due to their being female. Though this tendency is disappearing with advancement of the society, it has not been yet completely uprooted from the common Indian psyche. Many research studies have been conducted and the growing philosophy of the organizations towards gender equality has come in the form that today women are expected to be with masculine behavior in their work settings. The Indian culture portrays the female with the name of sacrifice and patience which in turn speaks about her higher emotional stability. To what extent the age-old belief has been ascertained by the present study has been presented as per the Table-1. It can be glimpsed that in our sample of 509 respondents, where males are 230 and females are 279 and their respective means are 6.07 & 6.04 which does not show any significant difference and furthermore the obtained t-value (0.196) also does not signify the any difference among male and female aspiring managers at 0.05 levels of significance. Therefore the null hypothesis i.e. "There is no significant difference in the intuitive abilities of the aspiring managers according to gender" stands accepted and hence concluded that there is no significant difference in the intuitive abilities of the male and female and aspiring managers. Our results affirms that females are as intuitive as their male counterparts are and thus capable of taking important decisions in

complex situations despite of having insufficient information and time.

With regard to the marital status category of the respondents, where we have 45 married and 464 unmarried aspiring managers with mean 6.3 & 6.0 respectively and SD comes out to be 1.8 & 1.7 respectively. After going in for deeper analysis the obtained t-value is .809 which is not significant at any of the level of significance. Therefore the null hypothesis, "There exists no significant difference among the intuitive abilities of the married and unmarried aspiring managers" is accepted and concluded that there is no significant difference in the intuitive abilities on the basis of marital status. Therefore we can say on the basis of sample that marriage does not interfere with the intuitive abilities of the aspiring managers. Further, with regard to the educational qualification, we have 91 aspiring managers with Arts/Humanity, 149 with science, 200 with commerce and the rest 69 aspiring managers are graduates from Professional stream. Their respective means are 6.16, 6.0, 5.8, 6.5 respectively and the obtained F-value is (3.157), which is significant at 0.05 levels of significance. Therefore the null hypothesis, "There exists no significant difference among the intuitive abilities of the aspiring managers with regard to their educational qualification" is rejected and it is concluded that educational background does play a significant role in intuitive abilities of the aspiring managers. The respondent with arts and professional background seems to be more intuitive as comparative with their science and commerce background counterparts according to the sample studied. One of reasons for this can be that science and commerce students rely more on facts and figures when it comes to decide on some important matter rather than using their knowledge based on past experiences, which is much more important when we do not have sufficient time and facts to take a decision immediately. In contrast, their arts and professional background counterparts, who prefer to go with their 'Gut-feeling' when crisis arise and they are supposed to make quick decisions with no sufficient data and time to collect data is available, according to our sample statistics.

Describing the data on the related lines further, in the results corresponding to place of birth, we have 309 urban, 101 semi-urban and 99 rural respondents with a mean of 6.14, 5.98, and 5.89 respectively which are not significant with F-value (.854). Therefore the null hypothesis, "There exists no significant difference among the intuitive abilities of the aspiring managers with regard to their place of birth" stands accepted

and it is concluded that place of birth does not play any significant role in intuitive abilities of the aspiring managers. May be the environment in which they grow up can be a factor of discrimination. It can be seen from the table that on the basis of place of schooling, we have 389 urban, 76 semi-urban and 42 rural respondents with mean 6.06, 5.7 and 6.4 respectively. The calculated F-value is 2.02 which is not significant at the levels of significance. Therefore the null

hypothesis, "There exists no significant difference among the intuitive abilities of the aspiring managers' acc to their place of schooling" is accepted and concluded that there seems to be no significant difference in the intuitive abilities on the basis of place of schooling. In other words we can say that different background for school education does not play any major role in the development of intuitive abilities as far as our sample belongs to.

Table 1: Intuitive abilities of Aspiring Managers according to Demographic Variables

Variable	Indicator	N	Mean.	SD	Value	Statistical Significance
Gender	Male	230	6.07	1.8	t-value= .196	.845=NS
	Female	279	6.04	1.7		
Marital Status	Married	45	6.3	1.8	t-value= .809	.422=NS
	Unmarried	464	6.04	1.7		
Educational Qualification	Arts/ Humanities	91	6.16	1.6	F-value= 3.157	.025*
	Science	149	6.01	1.7		
	Commerce	200	5.8	1.8		
	Professional	69	6.5	1.5		
Place of Birth	Urban	309	6.14	1.7	F-value= .854	.426=NS
	Semi-Urban	101	5.98	1.8		
	Rural	99	5.89	1.6		
Place of Schooling	Urban	389	6.06	1.7	F-value= 2.02	.133=NS
	Semi-Urban	76	5.78	1.8		
	Rural	42	6.45	1.5		
Nature of Present Institution	UTD	398	6.16	1.7	t-value= 2.27	.023*
	PAI	109	5.72	1.7		
Location of Present Institution	Metro/NCR	236	5.9	1.8	t-value= 1.5	.138=NS
	Others	273	6.16	1.7		
Specialization Availed	Single	238	5.7	1.7	t-value= 3.311	.001*
	Dual	270	6.3	1.7		
Field of MBA Specialization	HRM	163	6.07	1.7	F-value= .209	.959=NS
	Marketing	102	6.1	1.7		
	Finance	153	5.9	1.8		
	IB	28	6.2	1.7		
	IT	16	5.9	1.4		
	Others	47	6.7	1.5		

Note: NS= Not significant
* Significant at .05 level

Moving ahead with our (Table-1) findings for the dimension nature of present institution, the sample consists of 398 UTD (students from University Teaching Departments) and 109 PAI (Students from Private Autonomous Institutes). After calculations we have got the Means 5.7 and 5.9 respectively with t-value 2.27 which is significant at 0.05 levels. It shows that UTD and PAI are significantly different in intuitive abilities. Therefore the null hypothesis, "There exists no significant difference among the intuitive abilities of the aspiring managers' acc to their nature of present institution is rejected and concluded that there exists significant difference in the intuitive abilities of the aspiring managers' on the basis of nature of present institution. The aspiring managers studying in the UTD are having more intuitive abilities when compared with their counterparts studying in PAIs. The reason for this may be that the private institutes, in comparison of university teaching departments, are more professional and do not take much interest in feeding the aspiring managers conceptual knowledge, which in future can help them in taking decisions on crucial hours while using the previously learned facts.

While comparing the respondents' views on the basis of location of the present institution, the sample comprises of 236 respondents are from Metro/NCR region and 273 are from regions other than Metro/NCR which we named as others. Their respective means are 5.9 and 6.1; it has been found that the obtained t-value (1.5) does not signify the any difference among aspiring managers at 0.05 levels of significance. Therefore the null hypothesis i.e. "There is no significant difference in the intuitive abilities of the aspiring managers according nature of the present institution" stands accepted and hence concluded that there is no significant difference in the intuitive abilities of the aspiring managers when compared on the basis of location of the present institution. It can be said that location of the institutes does not have any impact on the intuitive abilities of the aspiring managers according to the present sample.

With regard to the specialization availed, we have 238 respondents are with Single and 270 are with Dual specialization. The calculated means are 5.7 and 6.3 respectively, the obtained t-value (3.311) is comes out to be significant at 0.05 levels. Therefore the null hypothesis, "There exists no significant difference among the intuitive abilities of the aspiring managers with regard to their specialization availed" is rejected and it is concluded that specialization availed does play a significant role in intuitive abilities of the aspiring managers. The students with dual specialization availed proves to be more intuitive to their single

specialization availed counterparts. As we all know that dual specialization demands for more laborious and divided attention as compared to the single specialization where the students have to concentrate only on one stream. So, it can be said on the basis of our findings that student who are more intuitive adopts dual specialization because they are always interested in more and more exploration which is a distinguishing part of their personality. As we further explore our data it can be seen from the table that on the basis of for the field of MBA specialization, the sample comprises of 163 respondents from HRM, 102 from Marketing, 153 from Finance, 28 IB, 16 IT and 47 respondents are from Other fields of specialization. Their means are 6.07, 6.1, 5.9, 6.2, 5.9, and 6.7 respectively. The calculated F-value is 2.02 which is not significant at the levels of significance. Therefore the null hypothesis, "There exists no significant difference among the intuitive abilities of the aspiring managers' acc to their field of MBA specialization" is accepted and concluded that there is no significant difference in the intuitive abilities on the basis of different fields chosen. It can be said that the students' intuition level is more or less same irrespective of their field of specialization in accordance to our sample studied.

Intuitive abilities of Working Managers according to Demographic Variables

The results of the Table-2 reveal the respondents' (working managers) views on their intuitive abilities on the basis of demographic variables. As it is a well known notion that people tends to be more mature in thinking and their decision power seems to improve with age. Is this age old belief also gets support from the results of our present sample? As far as the variable age is analyzed we have 164 respondents who are below 30 yrs of age, 157 between 31-40, 105 between 41-50, and 35 are above 50 yrs of age, in sample of total 465 respondents. Their means are 5.76, 5.92, 5.75, 5.40 and 5.74 respectively. The calculated F-value is .568 which is not significant at the levels of significance. Therefore the null hypothesis, "There exists no significant difference among the intuitive abilities of the working managers' with regard to their age" is accepted that there is no significant difference in the intuitive abilities on the basis of different age levels. Hence, it can be said that the' working managers' intuition level does not seem to differ significantly and as their age increases in accordance to our sample studied. We can conclude on the basis of our findings that intuition is an inborn potential and can not be improved by any exercise and forced efforts. As we further explore the data on the basis of gender,

we have 334 male and 131 females in our sample with the means of 5.74 and 5.96 respectively. The calculated t-value is 1.28, which is not showing any significant difference in intuitive abilities of working managers. Therefore the null hypothesis, "There exists no significant difference among the intuitive abilities of the

working managers' with regard to their gender" is accepted that there is no significant difference in the intuitive abilities on the basis of gender. Our findings ruled out the phenomenon that male are always better while taking decision under crisis as compared to their female counterparts as far as our sample is concerned.

Table 2: Intuitive abilities of Working Managers according to Demographic Variables

Indicator		N	Mean.	SD	Value	Statistical Significance
Variable						
Age	Below 30 yrs	164	5.76	1.7	F-Value= .568	.636 = NS
	31-40 yrs	157	5.92	1.7		
	41-50 yrs	105	5.75	1.5		
	50 & above	35	5.40	1.4		
Gender	Male	334	5.74	1.6	t-value= 1.28	.201=NS
	Female	131	5.96	1.7		
Marital Status	Married	348	5.7	1.7	t-value= .219	.827=NS
	Unmarried	117	5.8	1.6		
Educational Qualification	Technical	279	5.8	1.7	t-value= .328	.743=NS
	Professional	186	5.7	1.6		
Position	Managerial	354	5.8	1.7	t-value= 1.024	.307=NS
	Supervisory	111	5.6	1.7		
Experience	Up to 7 years	214	5.8	1.7	F-Value = .803	.449=NS
	8-15 Years	169	5.8	1.8		
	15& above	82	5.6	1.6		
Service sector	Manufacturing	230	5.7	1.8	t-value= 1.5	.134=NS
	Service	234	5.9	1.6		
Type of organization	Public	166	5.8	1.6	t-value= 1.27	.899=NS
	Private	299	5.8	1.7		

Note: NS= Not significant
* Significant at .05 level

With regard to the marital status variable, our sample consists of 348 married and 117 unmarried respondents. Their means are 5.7 and 5.8 respectively. The calculated t-value is .219, which is not significant on the levels of significance. Therefore the null hypothesis, "There exists no significant difference among the intuitive abilities of the working managers'

with regard to their marital status" is accepted that there is no significant difference in the intuitive abilities of married and unmarried working managers. It can be seen from the Table-2 that on the basis of the variable educational qualification, in our sample of 465, we have 279 respondents are having technical and rest are professional degree. Their means comes out to be

5.8 and 5.7 respectively. After detailed analysis of the data we got t-value=.328. This value indicates that there are no significant differences in the intuitive abilities of the working managers despite of having different educational backgrounds. Therefore the null hypothesis, "There exists no significant difference among the intuitive abilities of the working managers' with regard to their educational qualification" is accepted that the background of education is not an important and significant factor which can differentiate the working managers on their intuitive abilities according to our sample under consideration.

On further exploration of the data on the basis of position held in the organization, we have 354 respondents are working on managerial positions and rest 111 are working on supervisory positions. The means scores are of 5.8 and 5.6 respectively. The calculated t-value is 1.024, which is not showing any significant difference in intuitive abilities of working managers. Therefore the null hypothesis, "There exists no significant difference among the intuitive abilities of the working managers' with regard to their" is accepted that there is no significant difference in the intuitive abilities on the basis of position held in the organization. Our findings prove that position does not interfere with a managers' capability of taking decisions using their intuitive abilities. While inferring the data on the basis of experience, we have divided the total sample according to difference in years of experience, the data consists of 214 respondents under the level 0-7 years of experience, 169 between 8-14 and our 82 managers are having 15 and above 15 years of experience. The means are 5.8, 5.8 and 5.6 respectively. Analyzing further, the t-value comes to be .803, which is not showing any significant difference in intuitive abilities of working managers. Therefore the null hypothesis, "There exists no significant difference among the intuitive abilities of the working managers' with the regard to their years of experience." is accepted that experience does not have any effect on intuitive abilities of working managers as far as our sample is concerned. On comparison of the respondents' views on the basis of serving sector, the sample comprises of 230 managers working in manufacturing sector and 234 managers working in service sector. Their respective means are 5.7 and 5.9. The calculated t-value is 1.5, which is not showing any significant difference in intuitive abilities of working managers. Therefore, the null hypothesis, "There exists no significant difference among the intuitive abilities of the working managers' with the regard to their serving sector." is accepted that working in different sectors does not have any effect on intuitive abilities of working

managers according to our sample studied. With regard to the last demographic variable of the study i.e. type of organization; we have 166 managers working for public and 299 managers working for the private organizations. Their means comes out to be 5.8 and 5.8 respectively and the t-value is 1.27, which does not show any significant difference in intuitive abilities. Therefore, the null hypothesis, "There exists no significant difference among the intuitive abilities of the working managers' with the regard to their type of organization" is accepted that working in different type of organization does not have any effect on intuitive abilities of working managers as far as our sample is concerned.

CONCLUSION

The results of the study affirms that females are as intuitive as their male counterparts are and thus capable of taking important decisions in complex situations despite of having insufficient information and time. It can also be inferred from the findings that marriage does not interfere with the intuitive abilities of the aspiring managers as no significant difference has been found among married and unmarried respondents. The respondents with arts and professional background have scored high on intuitive abilities as compared to their counterparts from science and commerce backgrounds, and the aspiring managers studying in the UTD showed high intuition when compared with the respondents studying in PAIs. The students with dual specialization availed proved more intuitive as compared to the single specialization availed counterparts. However on the basis of for the field of MBA specialization, no significant difference emerged in the intuitive abilities of the aspiring managers. However with regard to the working managers' intuition level does not seem to differ significantly on any of the variable of the study.

REFERENCES

- Agor, Weston H. (1989). "How to Use and Develop Your Intuition in Management?" In Agor, Weston H. (Ed.), *"Intuitions in Organizations: Leading and Managing Productively"*, New York: Sage Publishers, pp. 215-245.
- Agor, Weston H. (1989). "The Intuitive Ability of Executives: Findings from Field Research", In Agor, Weston H. (Ed.), *"Intuitions in Organizations: Leading and Managing Productively"*, New York: Sage Publishers, pp. 145-156.
- Antle, N. Alissa and Droumeva, M. (2009). "Human-Computer- Intuition: Exploring the Cognitive basis for Intuition in Embodied Interaction", *International Journal*

of *Arts and Technology*, Vol. 2, No. 3, pp.1-7.

Betsch, Tilmann. (2008). "The Nature of Intuition and Its Neglect in Research on Judgment and Decision Making", In Plessner, Henning. Betsch, Cornelia. Betsch, Tillman. (Eds.), "*Intuition in Judgment and Decision making*", pp. 3-70.

Cushman, F., Young, L. & Hauser, M (2005). "The Role of Conscious Reasoning and Intuition in Moral Judgments: Testing Three Principles of Harm", *Personnel Psychology*, Vol. 43, No. 6, pp.27-49.

Donald R. Officer (2005). "The Unexplored Relationship between Intuition and Innovation", *The Innovation Journal: The Public Sector Innovation Journal*, Vol. 10, No. 3, pp.1-13.

H. Gisle (2004). *Intuition and its Role in Strategic Thinking*, Norway: BI Norwegian School of Management (Unpublished dissertation submitted for the Degree of Dr. Oecon, Series of Dissertations, Department of Strategy and Logistic), pp.1-189.

Hogarth, Robin M. (2001). "On the Learning of Intuition", In Agor, Weston H. (Ed.), *Intuitions in Organisations: Leading and Managing Productively*, New York: Sage Publishers, pp. 91-105.

Justin S. Albrechtsen, Christian A. Meissner and Kyle J. Susa (2009). "Can Intuition Improve Deception Detection Performance?" *Journal of Experimental Social Psychology*, Vol. 45, No. 8, pp. 1052–1055.

Kim, Seonghee (2000). "The Roles of Knowledge Professionals for Knowledge Management", *Paper presented at International Federation of Library Associations (IFLA), 65th IFLA Council and General Conference Bangkok, Thailand, August 20-28, 1999* INSPEL, pp. 1-8.

Laszlo, Ervin, (2009). "In Defense of Intuition: Exploring the Physical Foundations of Spontaneous Apprehension", *Journal of Scientific Exploration*, Vol.23, No.1, pp. 51-58.

Mc Craty, Rollin Et al. (2004). "Electrophysiological Evidence of Intuition: The Surprising Role of the Heart", *The Journal of Alternative and Complementary Medicine*, Vol. 10, No. 1, pp. 133–143.

Michael J. Frank, et al. (2005). "When Memory Fails, Intuition Reigns", *Journal of Psychological Sciences*, Vol. 17, No 8, pp. 708-710.

Michael J. Frank, Randall C. O'Reilly, and Tim Curran, (2006). "When Memory Fails, Intuition Reigns", *Journal for Psychological Science*, Vol. 17, No. 8, pp.700-707.

Paul, Bernstein, (2005). "Intuition: What Science Says-About How and Why Intuition Works", In Rosolino, Buccheri, et al., (Eds.), *Endophysics, Time, Quantum and the Subjective*, Singapore: World Scientific Publishing, pp.1-18.

IMPROVING BUSINESS AT RETAIL MARKET OF X BEARINGS - A QUALITATIVE STUDY

Dr. Rajdeep Bakshi*

Table of Contents

- Abstract
- Introduction
- Objectives
- Methodology
- Findings
- Results and Conclusion
- References

ABSTRACT

The article discusses how qualitative marketing research was undertaken by X Bearings in West Bengal to correct the problem of stagnating market share at the retail market of bearings. The challenge facing the company was that how to remain competitive and improve the stagnating market share in the retail market thereby improving marketing productivity. The paper shows how the company identified and solved the problem. The paper throws light on how the old system was qualitatively modified with a new system solving the company's problem.

Key words: Indian Market Bearings ~ Indian replacement market of bearings ~ Insights Current trends Flow diagram explaining the business of bearings at the Indian replacement market.

INTRODUCTION

The aim of any business is to be profitable through the delivery of products and service of value to the consumers. It is well known fact that when products are delivered in the way the customer desires the brand has a greater opportunity of having a higher perceived value (McQuiston 2004). Following a customer orientation gives a company the competitive advantage through higher corporate performance and increased profitability. In the opinion of Sheth (1991) the factors that contribute to the profitability are cost efficiency from repeat buyers, price premium from established customers, customer loyalty and positive word of mouth referrals. Business houses usually has two types of consumers viz. internal consumers and external consumers (Seth, Deshmukh, and Vrat, 2005) and if business has to achieve its goals through exchange in

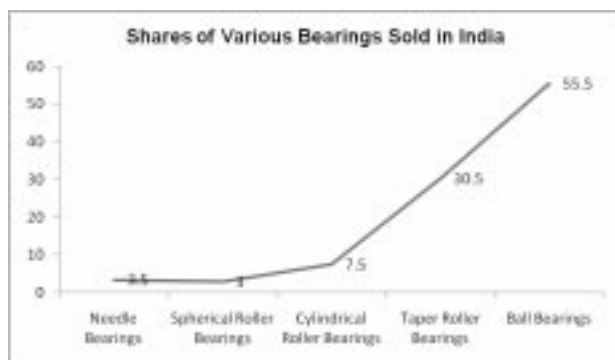
the market then it has to satisfy the interest of both their internal and external consumers. For a successful exchange take place it requires the involvement of the channel members who are actually a part of the company's internal consumers (Bakshi, 2006). These channel members command a lot of power thus the manager need to take care to influence intra-channel power relations (Hunt et. al. 1993). In this paper the role of these are pointed out in the case of X Bearings (X Bearings is a hypothetical name adopted to maintain confidentiality). Moreover the behavior of Indian consumers is remarkably different from the consumers of the western countries as they are usually indifferent in choosing brands as there are plenty of close substitutes available in the market (Das, Mohanty and Shil, 2008). When the consumer perceives little or no difference in the competing products then the product is usually perceived as generic. In the opinion of Trout and Rivkin (2000) differentiation defines the brand and distinguishes it from all others. In competitive situations where every marketer wants to have a place for their product in the consumers purchase basket they attempt to project perceived difference among their product and competing products by adopting the route of branding, thereby differentiating themselves from the competing brands (Mitchell, King, and Reast, 200, Mudambi, Doyle, and Wong 1997; Ward, Light, and Goldstine, 1999). To communicate the perceived difference among the competing brands usually the integrated marketing communication route is adopted by the companies that need the support of the channel members. Such support helps in making consumers understand that the companies brand is better than the competing brands. The channel members help in highlighting on the brand being superior thereby shaping consumer's perceived quality (Aaker, 1991). The consumers' understanding of superiority of the product or brand among the competing ones makes the product / brand successful in the market leading to a higher market share that in turn leads to greater revenue, leading to higher profitability and marketing productivity. The above is supported in the works Rosenbloom, (1985) in his opinion to achieve the marketing goal of the company it becomes the "sales manager's job to convince the channel members, the role of channel

*Professor of Marketing Research and Brand Management, St. Xavier Institute of Management, Calcutta

members or intermediaries is to make demand by building brand preferences among the consumers (Frazier, 2009). This job is indeed challenging as the competitors are also trying to convince their channel members including the retailers to encourage them push their products in the customers purchase basket as push along with pull is now recognized by the marketers as the twin building blocks of companywide marketing strategy (Kopp and Greyser, 1987). The current paper based on the case of X Bearings attempt to show the reader how all the above components were taken care by collecting qualitative marketing research input from consumers and members involved in the distribution channel.

The insights collected from the people involved in distribution channel and the consumers were successfully utilized by X Bearings to improve market share for their bearings in the retail end. The company went on by taking a qualitative market research in to

Chart 1



identify the problem of industrial marketing that was lying covered under the symptoms of stagnating market share and retailers reluctance to stock the brand in their stores. The study was conducted during April - June 2008 for three months in India.

Product Profile

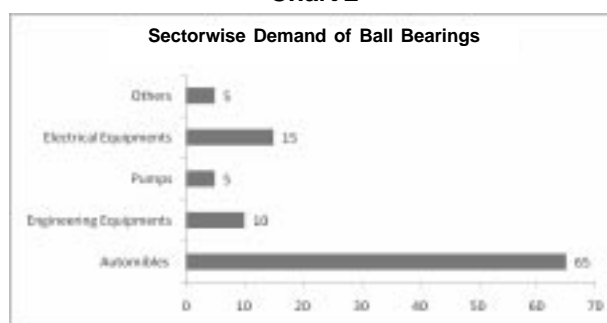
X Bearings manufacture and sell bearing which is mechanical equipment that provides support relative motion and reduces friction that improves the efficiency of the machine. It is an arrangement made up of a couple of concentric rings the spaces in between which are occupied by either by ball or cylindrical type of arrangement that are held together by a system called cage.

The chart 1 shows the share of various types of bearings sold in India, from this chart it can be seen that ball bearings is having the most demand.

Competitive Environment in the Indian Bearings Market
The Indian market for bearings is estimated to be around

5,400 Crores Indian National Rupee with around sixty percent of bearings is sold to the Original Equipment Manufacturers using the route of industrial marketing. The remaining produce is sold to the retail market. The retail market represents the demand arising on account of replacing the used and worn-out bearings. In the retail market, the bulk of the demand comes from the industrial segment, including heavy engineering, textile machinery, automobiles and consumer durables. The Chart 2 (hindubusinessline, 2002) shows the sector wise demand of ball bearings in India.

Chart 2



As seen from the chart 2 the major applications areas of bearings are automobiles, engineering equipments, electrical equipments, pumps and others like railways, diesel engines, heavy industries. Currently the bearings industry in India is growing with its overall sales rising, this growth has been noticed in the past few years. The growth rate of the Indian bearings industry has been at the rate of CAGR of 19.78 percent between 2003 and 2005 (Indian Bearings Industry Reports, 2007) and during the last six months 2009 -10 where the growth has been at the rate of Indian bearing Industry has been growing at a CAGR of 8.2 percent. The growth of the automobile industry in India has also been a blessing for the Indian bearing industry as India is poised to emerge as the fourth-largest light vehicle market in the world by 2014. Since automobiles mostly use ball bearings this probably shows the reason for the high demand of ball bearings and its heavier sales. This is reflected in the chart 2 that show the automobile industry is the biggest consumer of bearings. Around forty percent of the demand for bearings comes from the Indian replacement markets.

But the Indian bearing industry for the retail market is at the same time highly fragmented. It is often commented for the bearings retail market that the "India's fragmented distribution system is hard for many westerners to imagine." The Indian market is also of interest to the marketers of the countries of the west as Indian has more than a billion people and an

economy that has been growing at 7 percent or more for the past decade, India is poised to become an economic powerhouse this fact has been recognized at the Harvard Univ

In the context of the unorganized retail for bearings it can be seen that in and around Mumbai there are nearly 2,000, in Chennai there are over 900, Kolkata has over 500, Bangalore over 1100 and Delhi has around 500 retail shops selling bearings and most shops are found in loosely organized groups. Thus the dynamics of fragmented replacement market for Indian bearings is an interesting area of investigation. In India there are twenty seven players in the organized sector and their total installed capacity is 190 million and the total production is 136 million with a capacity utilization of Seventy Two percent. The unorganized sector usually manufactures small bearings required for the replacement market. On the other hand, the organized sector supplies to both the original equipments manufacturers (OEM) as well as the replacement market.

The Background

To discuss about the background of the study it is needed to go back two years in 2008. The modern companies have understood the fact that having a brand with high perceived quality leads to the foundations of a long-lasting relationship between the consumers and the company leading to marketing success and sustained competitive advantage (Schultz, 2001). Modern research has shown that branding of industrial products plays a more important role in industrial decision making than has been thought previously (Mudambi, 2002). Understanding this X Bearings invested around 250 Crores INR in brand building and brand promotions yearly for last ten years. But the company discovered that investment in brand promotions and brand building is not giving them results as it had no effect on improving the market share. Thus X Bearings conducted marketing research in 2004 by an established external research provider whose reports pointed out that the company should concentrate on selling bearings by focusing on the garage mechanics as opinion leaders. X Bearings implemented the results of the report in 2005 but this did not produce any result as the market share remained stagnating at 14 percent from 2005 to 2008. Thus X Bearings needed to go out and investigate the system of industrial marketing and channel (B2B2B) so that the salient characteristics of the retail market of bearings can be investigated and solution of problem of stagnating market share can be achieved with the following objectives.

OBJECTIVES

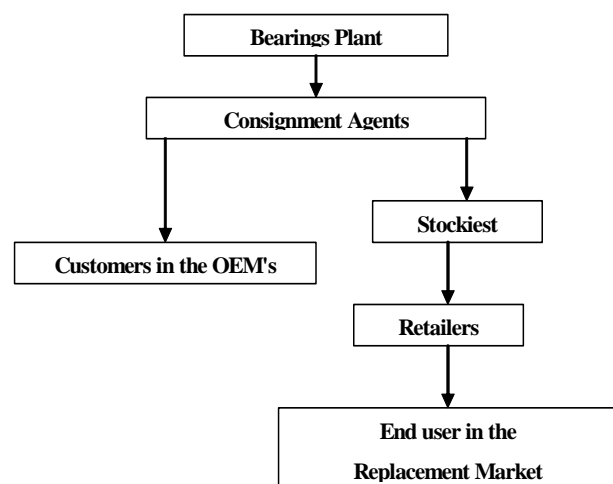
The problem of stagnating market share was taken up and the probable causes of this was listed by conducting a detailed discussion with senior marketing managers in the level of chief marketing and sales of X Bearings on 21st April 2008. With the possible causes being listed it was decided that a qualitative field research would be needed to cover up the following issues.

- Understanding the bearing business in the replacement market.
- Understanding how the company X Bearings reach out their product to the consumers at the retail end
- Generating insights and understanding the current trends for the replacement market of bearings in West Bengal.

METHODOLOGY

To accomplish the objective stated above a two-stage qualitative marketing research was taken up. In the first stage the officials of X bearings involved in selling and marketing of bearings were interviewed in depth using probing questions relating to the objectives listed above. This was done in order to know, who are their consumers? And what activities they usually undertake for reaching their products to their consumers? The results were recorded mechanically and analyzed through content analysis the result show that the company follow the route shown in figure 1 named as traditional method of marketing bearing as adopted by X Bearings.

Figure 1: Traditional Method of Marketing Adopted by X Bearings



The figure 1 shows that there are two routes, in the first route the bearings move directly to the OEM's or via the consignment agents. In the second route the bearings move to the consignment agents to the stockist or the stockist directly and then form the stockist it moves to the retailers. This figure shows that the stockist comes in a level in between the retailer and the company thus feedback of the stockist was needed to be collected. A sample of twenty six stockists in all over India of X Bearings was selected on the basis of judgment. These stockist were interviewed using depth interview using probing techniques. Their responses were recorded mechanically and treated using content analysis. These stockiest gave the idea on the concentration and distribution of retail outlets of bearings in India thus these areas were selected for data collection in the further research. In the second stage of the study a sample of three hundred and fifty retailers were selected on judgmental basis and interviewed in depths for understanding the dynamics of the bearings business at the retail end. The responses were recorded mechanically and content analysis was used for the purpose of drawing conclusion for the study.

FINDINGS

The responses obtained were studied minutely using content analysis and the following are creamed out and clubbed under the following heads

A. Insights

1. There is variation in price for the consumers across shops as retailers are sharing a part of their channel money with the consumers to attract more consumers in their shops. This is leading to confusion among the consumers as they prefer buying at a stable price.
2. The paper package of the X Bearings is not giving proper support to the product and the products are getting rusted moreover the X Bearings package comes without a hologram thus the consumers can not identify the original and the spurious bearing.
3. The consumers segment of commercial vehicles is usually price sensitive and prefers to buy the low priced bearing coming from the unorganized and Chinese imports. Moreover the retailers are also interested to stock and sell them as they need to invest lower money in their working capital.
4. The consumers from the high priced cars consider that the repair of their automobile is both time and

cost consuming, such consumers usually prefer to replace their worn out bearings

5. Direct channel relationship between the retailers and the company can help in generating good business for the which the retailers are happy as on the occasion of problems they can get it directly solved through the company contact. For X Bearings this was reported by the retailers that the stockists are reluctant to solve the problems of the retailers.
6. There is a need for brand protection.

B. Current Trends

1. Reconditioned bearings are being used as cheap substitutes.
2. Some of the retailers are referring the brand through word of mouth for which they getting higher margin money.

C. Business of Bearings at the Retail End

The figure 1 explains the business of bearing at the retail end as being currently followed.

But as the discussion above point out the fact that the retail market involves several complexities and a simple system like as shown in figure 1 would need modification to respond to the changing market conditions. Thus an improved system shown in figure 2 was suggested and adopted by X Bearings.

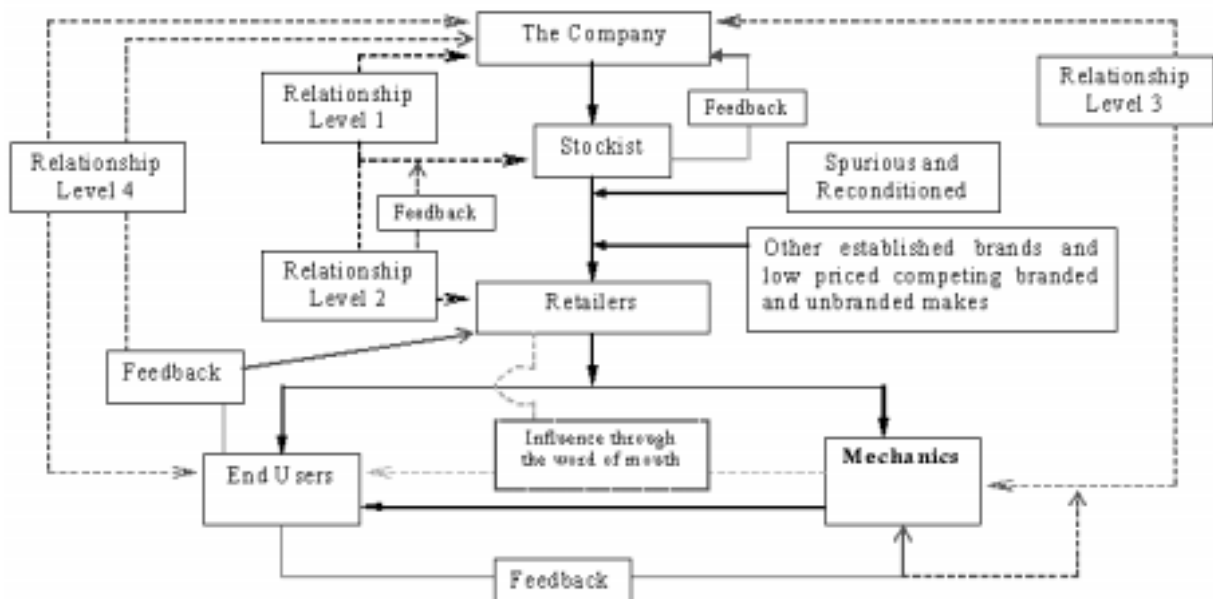
This figure show the additional activities that a bearing marketer needs to do in order to take care of the challenging competitive conditions of the retail market.

Applications of the results of the study

Based on the results of the study the following action points were noted and applied in August 2008:

1. It was recognized that Pouch Packaging with hologram adds enormously to the credibility of originality, as well as to the attractiveness of a brand, thus it was an absolute must for business at the retail market. Competitors have implemented this earlier with huge success and X Bearings decided to adopt the same.
2. The X Bearings realized the fact that they need to strengthen their brand protection activity.
3. Sales promotions using coupons has not been working for X Bearings as it was actually causing a strain on the distribution system during

Figure 2: Modern Method of Marketing Adopted by XBearings



implementation. Thus X Bearings decided that they would distribute gifts at the mechanics meets. This is actually the applications of relationship level 3 in the figure 2.

4. The company understood that the superior contact is needed to maintain relationship with retailers and end users so the company's call centre number should be placed on the package this is actually the application of relationship level 4 in the figure 2.

The company adopted training of Stockist on behavior skills and marketing skill and making them act as brand ambassadors was adopted. The company decided to reward those stockists and retailers who would promote the brand and give special benefit schemes for the performers. This is actually the applications of relationship level 1 as shown in figure2.

RESULTS

Increase in market share at 2009 and 2010 by 6 and 8 percent respectively, beating the competition.

CONCLUSION

Companies need to understand the behavior of the internal consumer along with the need of the external consumers. This can be done by understanding the dynamics of the replacement market of bearings. The marketer need to understand that after the good leaves the company warehouse they have very limited control over the good and the macro forces of market

becomes the prime guiding factors in shaping the destiny of the product.. In such a situation the marketer needs to consider the four levels of relationships, under the relationship level 1 the marketer needs to maintain a healthy relations with their stockists here the training of the stockist and retailers on behavioral skills is needed. Under relationship level 2 the company needs to maintain a good understanding with the retailers through direct contact using call centre numbers where the retailers can docket their complaints and seek solutions. Under relationship level 3 the company needs to maintain a relationship with the mechanics who act as the influencer in the purchase decision of bearings. They need to train mechanics on the right method of fitting and the right number of bearing that need to go into the component as a majority of Indian automobile mechanics is untrained and has learned the work only by trial and error method. Thus a relationship building exercise can help in getting more positive word of mouth referral of the brand for their customers. Under relationship level 4 the company can invite feedback for the customer regarding their post purchase perception and usages experiences bearings. These little bit of extra effort can bring in brand satisfaction which needs to be checked through periodic market research and market intelligence data gathered by the company either through their in-house or outsourced agencies.

REFERENCES

Aaker, D. (1991) Managing Brand Equity, Free Press, New York, pp 78-103

- Bakshi, R. (2006). An Analysis of the Awareness of Various Brands among the Customers in the Replacement Market of Bearings in Kolkata. *The Vision Journal of Management Sciences*, Vol. 2, No. 03, pp. 31-32
- Das, B., Mohanty, S. and Shil, N. S. (2008) Consumers' Buying Behavior: A Factor Analysis in Consumer Durable Market. *International Journal of Business and Management*, Vol. 3, No, 09, pp. 147- 156
- Frazier, G. L. (2009). Physical distribution and channel management: a knowledge and capabilities perspective. *Journal of Supply Chain Management: A Global Review of Purchasing and Supply*, Vol. 45, No. 02, pp. 23 - 36
- Hunt, K. A., Fisher, R. J. and Keaveney, S. M. (1993). Managing Customer-Based Channel Power: An Attribution Theory Perspective. *Journal of Marketing Channels*, Vol. 2, No.03, pp. 85 - 106
- Kopp, R. J. and J. Greyser S. A. (1987). Packaged Goods Marketing - "Pull" Companies Look to Improved "Push". *Journal of Consumer Marketing*, Vol. 04, No. 02, pp. 13 - 22
- Kotler, P. and Armstrong, G. (2006) *Principles of Marketing*, 11th Ed. , Pearson Education Inc, New Jersey, pp 05
- Krishnakumar, B. (2001). Bearings: Caught in the auto crash, *Business Line's Investment World*, The Hindu Group of Publications, <http://www.hinduonnet.com/businessline/iw/2001/07/08/stories/0508e051.htm>, Visited on 15th April 2006, 13.35. IST
- Krishnakumar, B. (2002). Bearings industry: Friction Free? , *Business Line's Investment World*, The Hindu Group of Publications, www.thehindubusinessline.com/.../2002080400861300.htm, Visited on 15th April 2006, 12.30. IST
- Malhotra, N. K. (2004) *Marketing Research an Applied Orientation*, Pearson Education, New York, pp 170 - 208.
- Mc Quiston, D. H. (2004). Successful branding of a commodity product: The case of RAEX LASER steel, *Industrial Marketing Management*, Vol. 33, pp. 345-354.
- Mitchell, P., King, J., and Reast, J. (2001). Brand values related to industrial products. *Industrial Marketing Management*, Vol. 30, No. 05, pp. 415- 425.
- Mudambi, S. (2002). Branding importance in business-to-business markets: Three buyer clusters. *Industrial Marketing Management*, Vol. 31, No. 06, pp. 525- 533.
- Mudambi, S. M., Doyle, P., and Wong, V. (1997). An exploration of branding in industrial markets. *Industrial Marketing Management*, Vol. 26, pp. 433-446.
- Rosenbloom, B. and Anderson, R. (1985). Channel management and sales management: Some key interfaces. *Journal of the Academy of Marketing Science*, Vol. 13, No. 03, pp. 97-106
- Schultz, D. E. (2001). Zapping brand heritage. *Marketing Management*, Vol. 10, No. 04, pp. 8 - 9
- Seth, N., Deshmukh, S. G., Vrat, P. (2005). Service quality models: a review, *International Journal of Quality and Reliability Management*, Vol. 22, No. 09, pp. 913-949
- Sheth, J. (1991). Competitive advantage through customer satisfaction. *BMA Review*, Vol. 2, No. 01, pp. 13 - 25.
- Trout, J. and Rivkin, S. (2002) *Differentiate or die*, East West Books, Madras , pp 12
- Ward, S., Light, L., and Goldstine, J. (1999). What high-tech managers need to know about brands. *Harvard Business Review*, Vol. 77, No. 04, pp. 85- 95
- Web Resources :**
- <http://www.metalcraftengg.com/taper.htm>, Visited on 15th March 2008, 09.30 IST
- <http://www.metalcraftengg.com/index.htm>, Visited on 02 January 2009, 11.35 IST
- <http://www.hinduonnet.com/businessline/iw/2001/07/08/stories/0508e051.htm>, Visited on 28th February 1010, 23.10 IST
- <http://www.Fag.com/content.Fag.de/en/index.jsp>, Visited on 29th February 1010, 21.15 IST
- <http://www.blonnet.com/iw/2002/02/24/stories/2002022400020900.htm>, Visited on 17th February 1010, 20.13 IST
- <http://www.durgabrgs.com/Engineering>, Visited on 12th February 1010, 10.33 IST
- <http://www.dsir.gov.in/reports/techreps/tsr047.pdf>, Visited on 14th February 1010, 11.41 IST

EMPLOYEES' SATISFACTION TOWARDS E-HRM IN SERVICE ORGANIZATIONS

Anjali Gupta*
Shabnam Saxena**

Table of Contents

- Abstract
- Introduction
- Review of Literature
- Objectives of the Study
- Research Methodology
- Instruments for Data Collection
- Results and Discussion
- Conclusion and Suggestions
- References

ABSTRACT

People mean different things by the term "e-HRM". It is a web-based solution that takes advantage of the latest web application technology to deliver an online real-time Human Resource Management Solution. It is comprehensive but easy to use, feature-rich yet flexible enough to be tailored to your specific needs. It also refers to the processing and transmission of digitized information used in HRM, including text, sound and visual images, from one computer or electronic device to another. It will be able to meet the demands of today's Human Resource Management. Primary data based on 400 respondents of IT and Banking sector operating in India was used to evaluate satisfaction level of employees towards e-HRM. Data was analyzed with the help of statistical tools like factor analysis, ANOVA and t- test. It is found that six main factors of employees' satisfaction towards e-HRM are Faster Communication, Improvements, Benefits, Employee Management, Time Efficiency and Client Oriented and employees have different satisfaction level towards all the factors.

INTRODUCTION

HR function of an organisation is responsible for complying with the HR needs of the organisation. As with other business functions, strategies, policies and practices have to be implemented to ensure smooth operation of the organisation and prepare the organisation in such a way that smooth operation can be guaranteed in the nearby future. Using e-HRM

technology is a way of implementing these HR strategies, policies and practices. The e-HRM technology supports the HR function through web-technology based channels. The e-HRM technology provides a portal which enables managers, employees and HR professionals to view extract or alter information which is necessary for managing the HR of the organisation.

Employees' satisfaction is must for smooth working of an organisation. Without this, peaceful running of an organisation is not possible. If some changes are done in the organisation and employees are not satisfied with it then the results of those changes are not in favor of the organisation. So, in this chapter employees' perception is analyzed towardse-HRM.

REVIEW OF LITERATURE

As stated by Doughty (2000), today, within the HR software market there are a myriad of HR systems, payroll, training administration, 360 degree feedback, psychological testing and competency software tools operating in their own software features. Evidence suggests that most organisations fail to recognize that nearly all software on the market today is at the foundation level of e-HR. In the views of McMahan, Snell, Gerhart and Wright (2001), HR functions can become critical partners in driving success, but to do so requires HR changes its focus, its role and its delivery systems. e-HRM (electronic human resource management) refers to the processing and transmission of digitized information used in HRM, including text, sound and visual images, from one computer to another electronic device. e-HRM has the potential to change all traditional human resource management functions. The human resource management function has changed dramatically over time evolving.

Walker (2001) states that if HR technology is to be considered successful, it must change the work performed by the Human Resources Personnel by dramatically improving their level of service, allowing more time for work of higher value and reducing their costs. Many systems have been implemented by cutting HR staff, outsourcing and imposing new

*Research Scholar, Haryana School of Business, Guru Jambheshwar University of Science & Technology, Hisar, Haryana

**Associate Professor, Haryana School of Business, Guru Jambheshwar University of Science & Technology, Hisar, Haryana

technology. Globetronics Multimedia Technology Sdn. Bhd. (2003) stated that the leading solution for e-HRM is System Manager, HR Manager, Time Manager, Payroll Manager, and Report Manager. According to Prasad (2003), the concept of computerized HRIS is derived as an organized method of providing information about human resources, their functioning, external factors relevant to managing human resources. Large organisations generally install e-HR because it enables them to collect, store, process and manipulate large amount of data inputs, reduce costs of maintaining human resource data and provide accurate information about human resources anytime and anywhere.

In the views of Armstrong (2003), e-HR provides the information required to manage HR processes. These may be core employee database and payroll systems but can be extended to include such systems as recruitment, e-learning, performance management and reward. The system may be web-based, enabling access to remote or online and at any time. The information provided by the e-HR process can be communicated across organisations. Kettley and Reiley (2003) states that a computerized human resource information system consists of "a fully integrated, organisation wide-network of HR-related data, information, services, databases, tools and transactions. Technology has only recently developed in a way that enables e-HR to make its mark, especially the introduction of corporate intranets and web-enabled HRIS. The nature of the development path, however, varies considerably from organisation to organisation.

Foster, Hawking and Stein (2004) describe that the application of the internet to the Human Resource function (e-HR) combines two elements: one is the use of electronic media while the other is the active participation of employees in the process. These two elements drive the technology that helps organisations lower administration costs improve employee communication and satisfaction, provide real-

time access to information while at the same time reducing processing time. This technology holds out the promise of challenging the past role of HR as one of payroll processing and manual administrative process to one where cost efficiencies can be gained, enabling more time and energy to be devoted to strategic business issues.

OBJECTIVES OF THE STUDY

The objective of this paper is to study the satisfaction level of employees towards e-HRM in service organisations.

RESEARCH METHODOLOGY

The present study is an exploratory cum descriptive research. In order to achieve the aforesaid objective, following research methodology is used in the study described in these sections:

- i) Sample and sample profile
- ii) Instruments for data collection
- iii) Tabulation and codification of data
- iv) Statistical analysis

Sample - The sample included in the study is drawn from whole INDIA. The sample size of the research consisted of 400 employees of service organisations. These 400 employees are from IT and Banking sector and 25 employees are taken from each organisation. To study the employees' satisfaction towards e-HRM, demographic variables (organisation name, age, sector, experience, income, type of organisation and gender) are included in the study. Convenient Sampling Technique is adopted in order to choose the ultimate unit i.e. the respondents.

INSTRUMENTS FOR DATA COLLECTION

To achieve the objective taken up in the study, primary data is used. For primary data collection, structured questionnaire is developed consisting of 21 items.

Sample Profile

Table 1: Distribution of Employees Sample on the basis of Demographic Variables

Demographic Variables		Nos. of Respondents	Percent
Organisation Name	SAP Labs	25	6.3
	Infosys Technologies Ltd.	25	6.3
	NIIT Technologies Ltd.	25	6.3
	Tata Consultancy Services	25	6.3
	Aricent Technologies Pvt. Ltd.	25	6.3
	Wipro Ltd.	25	6.3
	Metacube Software Pvt. Ltd.	25	6.3
	IBM	25	6.3
	ICICI Bank Ltd.	25	6.3
	HDFC Bank	25	6.3
	AXIS Bank	25	6.3
	IndusInd Bank	25	6.3
	IDBI Bank	25	6.3
	SBI	25	6.3
	PNB	25	6.3
	Union Bank of India	25	6.3
	Total	400	100.0

Age (Years)	Below 25	117	29.3
	25-30	209	52.3
	31-35	53	13.3
	Above35	21	5.3
	Total	400	100.0
Sector	IT	200	50.0
	Banking	200	50.0
	Total	400	100.0
Experience (Years)	Below5	247	61.8
	5-10	120	30.0
	11-15	22	5.5
	Above15	11	2.8
	Total	400	100.0
Income (Lakhs)	Below2	50	12.5
	2-5	236	59.0
	6-8	80	20.0
	Above8	34	8.5
	Total	400	100.0
Area	Urban	318	79.5
	Rural	82	20.5
	Total	400	100.0
Type Of Organisation	MNC	175	43.8
	Domestic	25	6.3
	Public Bank	100	25.0
	Private Bank	100	25.0
	Total	400	100.0
Gender	Male	257	64.3
	Female	143	35.8
	Total	400	100.0

TABULATION AND CODIFICATION OF DATA

To achieve the objective of employees' satisfaction towards e-HRM in INDIA, a 5-point scale (highly satisfied, satisfied, indifferent, dissatisfied, and highly dissatisfied) is used. A score of 1 for the response 'highly dissatisfied', 2 for 'dissatisfied', 3 for 'indifferent', 4 for 'satisfied', 5 for 'highly satisfied' is assigned. Initially factor analysis is applied to the raw data of employees' satisfaction. Organisation-wise analysis {Sap labs (1), Infosys Technologies Ltd.(2), NIIT Technologies Ltd.(3), Tata Consultancy Services(4), Aricent Technologies Pvt. Ltd.(5), Wipro Ltd.(6), Metacube Software Pvt. Ltd.(7), IBM(8), ICICI Bank Ltd.(9), HDFC Bank(10), AXIS Bank(11), IndusInd Bank(12), IDBI Bank(13), SBI(14), PNB(15), Union Bank of India(16)}, age-wise analysis {below 25(1), 25-30(2), 31-35(3), above 35(4)}, sector-wise analysis{ IT(1), Banking(2)}, experience-wise analysis{ below 5(1), 5-10(2), 11-15(3), 15 above(4)}, income-wise analysis{ below 2(1), 2-5(2), 6-8(3), 8 above(4)}, type of organisation-wise analysis{ foreign bank(1), MNC(2), Domestic(3), public bank(4), private bank(5)}, gender-wise analysis{ male(1), female(2)}.

Statistical Analysis

Statistical inferences emphasis on Mean, Standard Deviation, ANOVA and t-test based on Factor Analysis.

RESULTS AND DISCUSSION

In order to understand this, certain statements are developed. The details of these statements are given

below:

- S1: It tells that it improves administration & efficiency.
- S2: It tells that it improves client orientation & service.
- S3: It tells that it improves HR's strategic orientation.
- S4: It tells that e-HRM is a cost reduction programme.
- S5: It tells that e-HRM reduces administrative work.
- S6: It tells that e-HRM reduces administrative staff.
- S7: It tells that it helps HR dept. to get a clean profile of the employees.
- S8: It tells that Employees are experiencing more HRM skills with the help of e-HRM.
- S9: It tells that Employees get updated news of the org. dynamics.
- S10: It tells that Employees take part in online discussion.
- S11: It tells that Employees are self initiators of their own career mgt. direction.
- S12: It tells that Employee & time managers self manage employee mgt.
- S13: It tells that it is helping HR managers to become more efficient in their working.
- S14: It tells that Internet recruiting is a faster communication.
- S15: It tells that e-HRM saves time or it is time efficient.
- S16: It tells that e-HRM does data management of all the employees in the world of an Org. effectively.

S17: It tells that Employees concentrate on the strategic aspects of the job as e-HRM relieves them with their routine work.

S18: It tells that Adaptability to client increases after applying e-HRM.

S19: It tells that there is security of data in e-HRM.

S20: It tells that e-HRM supports multi-language.

S21: It tells that e-HRM is a more dynamic workflow in the business process, productivity.

Interpretation of factor analysis for employees' satisfaction

The analysis will investigate linear combination of some latent factors (underlying factors) with the help of factor analysis. Table 2 comprises, the rotated factor matrix comprising all 21 variables, the Eigen values 1 or more than 1 for all extracted factors, the percent of variance and cumulative percent of variance.

Total 6 factors are extracted out of 23 original variables with Eigen values 4.687, 3.005, 2.280, 1.338, 1.207 and 1.076. These 6 extracted factors together account for 69.203 percent of cumulative variance. It means information is able to economize as more than half of the information is retained to us and only 30.797 percent of information is lost. For rotated factor matrix, it is noticed that variables s1, s3, s5, s6, s12, s14, s16 have loading of 0.530, 0.651, 0.832, 0.817, 0.539, 0.569, 0.565 on Factor 1 (Faster Communication). This suggests that Factor 1 is combination of these 5 original variables (s3, s5, s6, s14, s16) therefore the name can be given as Faster Communication. S1 and s12 are not including in Factor 1 as s1 favors Factor 4 (in the light of the statements) and s12 favors Factor 2 (in the light of the statements). Now in table 6.3.2 for rotated factor matrix, it can be noticed that variables s1, s9, s10, s11, s18, s19 have loading of 0.519, 0.558, 0.788, 0.729, 0.623, 0.699 on Factor 2 (Improvements).

Table 2: Rotated Factor Matrix

Variables	Faster Communication	Improvements	Benefits	Employee Management	Time Efficiency	Client Oriented
S1	0.53	0.519	-0.213	-0.059	0.082	0.179
S2	0.217	0.006	0.102	0.2	0.016	0.764
S3	0.651	0.027	0.305	0.257	-0.025	-0.315
S4	0.145	-0.131	0.79	-0.043	0.053	0.037
S5	0.832	0.041	0.097	-0.005	0.022	0.228
S6	0.817	0.016	0.121	0.068	0.024	0.219
S7	0.026	0.211	0.281	-0.238	0.671	-0.105
S8	0.098	-0.023	0.513	0.153	0.459	-0.309
S9	0.457	0.558	-0.106	0.086	-0.18	-0.342
S10	0.253	0.788	-0.06	0.141	-0.059	-0.153
S11	-0.082	0.729	-0.063	0.293	0.152	-0.11
S12	0.539	-0.045	-0.091	0.535	-0.141	0.115
S13	0.094	0.065	0.341	0.693	0.225	0.148
S14	0.569	0.119	-0.092	0.197	0.344	-0.274
S15	0.038	-0.048	0.073	0.226	0.773	0.189
S16	0.565	0.019	-0.006	0.31	0.473	-0.086
S17	0.2	0.026	0.276	0.715	0.064	0.013
S18	-0.268	0.623	0.319	-0.141	0.123	0.125
S19	0.04	0.699	-0.092	-0.226	0.004	0.164
S20	0.004	0.055	0.699	0.307	0.001	0.091
S21	-0.046	-0.075	0.563	0.248	0.265	0.069
Eigen values	4.687	3.005	2.28	1.338	1.207	1.076
Percentage of Variance	22.317	14.308	10.855	6.373	5.745	5.124
Cumulative Percentage	22.317	36.624	47.479	53.852	59.597	64.721

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a Rotation converged in 9 iterations.

This says that Factor 2 is combination of these 6 original variables (s1, s9, s10, s11, s18, s19). For this reason the name for this Factor is Improvements. The Factor 3 is combination of s4, s8, s20, s21 have

loading of 0.790, 0.513, 0.699, 0.563. That's why the name can be given as Benefits. The Factor 4 comprises the variables s12, s13, s17 have a loading of 0.535, 0.693, 0.715 and the name is Employee Management

for this. The Factor 5 comprises of original variables s7, s15 with a loading of 0.671, 0.773. Hence, the name can be gives as Time Efficiency. The Factor 6 is combination of only s2 variable having loading of 0.764. this statement says that e-HRM improves client orientation & service. That's why the name can be suggested as Client Oriented.

One-way ANOVA for Organisation-wise Analysis of Employees

The mean value for the respondents of various organisations towards Faster Communication (Factor 1) is 4.07, 4.17, 4.09, 4.08, 4.15, 3.88, 3.79, 4.04, 4.68, 3.73, 3.52, 4.43, 4.04, 3.88, 3.95, 5.00 with value of S.D. 0.450, 0.459, 0.238, 0.294, 0.366, 0.321, 0.397, 0.379, 0.432, 1.241, 1.170, 0.449, 0.282, 0.326, 0.202, 0.000. The value of F is 11.266 at 0.000 significant value. It means there is significant difference exists (the value of significant level for F-test is less than 0.05) between the opinions of respondents of various organisations towards Factor 1. The mean value for the respondents of various organisations towards Improvements (Factor 2) is 4.11, 4.18, 4.21, 3.90, 4.01, 3.82, 3.92, 3.84, 4.50, 3.83, 3.74, 4.30, 3.98, 4.23, 3.66, 2.50 with value of S.D. 0.401, 0.498, 0.247, 0.411, 0.359, 0.290, 0.565, 0.418, 0.461, 0.939, 0.728, 0.434, 0.244, 0.284, 0.198, 0.000. The value of F is 23.348 at 0.000 significant value. It means there is significant difference exists (the value of significant level for F-test is less than 0.05) between the opinions of respondents of various organisations towards Factor 2. The mean value for the respondents of various organisations towards Benefits (Factor 3) is 4.17, 4.26, 3.90, 3.99, 4.07, 3.89, 3.99, 3.95, 4.52, 4.82, 4.54, 4.61, 3.85, 3.09, 3.60, 5.00 with value of S.D. 0.351, 0.527, 0.388, 0.357, 0.470, 0.361, 0.537, 0.388, 0.520, 0.378, 0.636, 0.564, 0.144, 0.676, 0.204, 0.000. The value of F is 29.202 at 0.000 significant values. It means there is significant difference exists (the value of significant level for F-test is less than 0.05) between the opinions of respondents of various organisations towards Factor 3. The mean value for the respondents of various organisations towards Employee Management (Factor 4) is 4.06, 4.17, 4.33, 4.00, 4.24, 3.97, 3.90, 3.85, 4.73, 3.73, 3.80, 4.13, 3.92, 3.58, 3.94, 5.00 with value of S.D. 0.408, 0.601, 0.372, 0.360, 0.391, 0.395, 0.476, 0.624, 0.461, 0.922, 0.346, 0.981, 0.464, 1.259, 0.157, 0.000. The value of F is 9.165 at 0.000 significant values. It means there is significant difference exists (the value of significant level for F-test is less than 0.05) between the opinions of respondents of various organisations towards Factor 4.

The mean value for the respondents of various

organisations towards Time Efficiency (Factor 5) is 4.18, 4.34, 4.38, 4.16, 4.28, 4.00, 3.84, 4.02, 4.68, 4.92, 4.64, 4.66, 3.82, 4.36, 4.02, 4.50 with value of S.D. 0.430, 0.426, 0.462, 0.450, 0.480, 0.381, 0.514, 0.467, 0.453, 0.276, 0.568, 0.426, 0.775, 0.653, 0.100, 0.000. The value of F is 11.902 at 0.000 significant values. It means there is significant difference exists (the value of significant level for F-test is less than 0.05) between the opinions of respondents of various organisations towards Factor 5.

The mean value for the respondents of various organisations towards Client Oriented (Factor 6) is 3.92, 4.40, 3.96, 3.84, 4.04, 3.88, 3.96, 4.08, 4.32, 4.04, 4.20, 2.52, 4.08, 3.80, 5.00 with value of S.D. 0.640, 0.577, 0.734, 0.800, 0.789, 0.781, 0.454, 0.759, 1.144, 0.934, 0.645, 1.475, 0.640, 1.000, 0.553, 0.000. The value of F is 9.260 at 0.000 significant values. It means there is significant difference exists (the value of significant level for F-test is less than 0.05) between the opinions of respondents of various organisations towards Factor 6.

To sum up, respondents have different opinion towards all the Factors Faster Communication, Improvements, Benefits, Employee Management, Time Efficiency and Client Oriented.

One-way ANOVA for Age-wise Analysis of Employees

The mean value for the respondents of various organisations towards Faster Communication (Factor 1) is 4.20, 4.05, 4.07, 4.01 with value of S.D. 0.512, 0.783, 0.296, 0.302. The value of F is 1.535 at 0.205 significant values. It means there is no significant difference exists (the value of significant level for F-test is more than 0.05) between the opinions of respondents of various organisations towards Factor 1. The mean value for the respondents of various organisations towards Improvements (Factor 2) is 4.22, 3.75, 4.00, 3.76 with value of S.D. 0.451, 0.708, 0.326, 0.339. The value of F is 16.921 at 0.000 significant values. It means there is significant difference exists (the value of significant level for F-test is less than 0.05) between the opinions of respondents of various organisations towards Factor 2 (Table 3).

The mean value for the respondents of various organisations towards Benefits (Factor 3) is 4.07, 4.23, 4.06, 3.77 with value of S.D. 0.751, 0.605, 0.459, 0.343. The value of F is 4.752 at 0.003 significant values. It means there is significant difference exists (the value of significant level for F-test is less than 0.05) between the opinions of respondents of various organisations towards Factor 3. The mean value for the respondents

of various organisations towards Employee Management (Factor 4) is 4.09, 4.13, 3.93, 3.95 with value of S.D. 0.899, 0.634, 0.294, 0.264. The value of F is 1.608 at 0.187 significant values. It means there

is no significant difference exists (the value of significant level for F-test is more than 0.05) between the opinions of respondents of various organisations towards Factor 4.

Table 3: One-way ANOVA for Age-wise Analysis of Employees

Factors	Age (Years)	N	Mean	Std. Deviation	F Value	Sig. Level
Faster Communication	Below 25	117	4.20	0.513	1.535	0.205
	25-30	209	4.05	0.763		
	31-35	53	4.07	0.296		
	Above 35	21	4.02	0.303		
Improvements	Below 25	117	4.22	0.451	16.921	0.000
	25-30	209	3.75	0.709		
	31-35	53	4.00	0.327		
	Above 35	21	3.76	0.340		
Benefits	Below 25	117	4.07	0.751	4.752	0.003
	25-30	209	4.24	0.606		
	31-35	53	4.06	0.460		
	Above 35	21	3.77	0.344		
Employee Management	Below 25	117	4.09	0.900	1.608	0.187
	25-30	209	4.14	0.634		
	31-35	53	3.93	0.295		
	Above 35	21	3.95	0.264		
Time Efficiency	Below 25	117	4.35	0.573	1.328	0.265
	25-30	209	4.30	0.578		
	31-35	53	4.27	0.486		
	Above 35	21	4.10	0.201		
Client Oriented	Below 25	117	3.90	1.185	3.314	0.020
	25-30	209	4.12	0.749		
	31-35	53	3.77	0.933		
	Above 35	21	3.76	0.625		

The mean value for the respondents of various organisations towards Time Efficiency (Factor 5) is 4.35, 4.29, 4.27, 4.30 with value of S.D. 0.573, 0.578, 0.486, 0.201. The value of F is 1.328 at 0.265 significant values. It means there is no significant difference exists (the value of significant level for F-test is more than 0.05) between the opinions of respondents of various organisations towards Factor 5. The mean value for the respondents of various organisations towards Client Oriented (Factor 6) is 3.89, 4.12, 3.77, 3.76 with value of S.D. 1.184, 0.749, 0.933, 0.624. The value of F is 3.314 at 0.020 significant values. It means there is significant difference exists (the value of significant level for F-test is less than 0.05) between the opinions of

respondents of various organisations towards Factor 6.

To sum up, respondents have same opinion towards Faster Communication, Employee Management and Time Efficiency while they have different opinion towards Improvements, Benefits, and Client Oriented.

T-test for Sector-wise Analysis of Employees

From Table 4, it is clear that the mean value for the respondents of MNC, Domestic, public bank, private bank towards Faster Communication (Factor 1) is 4.03, 4.15 with value of S.D. 0.384, 0.805. The value of t is -1.886 at 0.060 significant levels. It means there is no significant difference exists (the level of significant level

Table 4: T test for Sector-wise Analysis of Employees

Factors	Sector	N	Mean	Std. Deviation	t Value	Sig. (2-tailed)
Faster Communication	IT	200	4.04	0.385	-1.886	0.060
	Banking	200	4.16	0.805		
Improvements	IT	200	4.00	0.428	2.544	0.011
	Banking	200	3.85	0.759		
Benefits	IT	200	4.03	0.439	-3.618	0.000
	Banking	200	4.25	0.768		
Employee Management	IT	200	4.07	0.482	-0.561	0.575
	Banking	200	4.11	0.837		
Time Efficiency	IT	200	4.15	0.478	-5.630	0.000
	Banking	200	4.45	0.582		
Client Oriented	IT	200	4.01	0.709	0.378	0.705
	Banking	200	3.98	1.100		

Source: Field Survey

for t-test is more than 0.05) between the opinions of respondents of various organisations towards Factor 1. The mean value for the respondents of various organisations towards Improvements (Factor 2) is 4.00, 3.84 with value of S.D. 0.428, 0.758. The value of t is 2.544 at 0.011 significant levels. It means there is significant difference exists (the level of significant level for t-test is less than 0.05) between the opinions of respondents of various organisations towards Factor 2.

The mean value for the respondents of various organisations towards Benefits (Factor 3) is 4.02, 4.25 with value of S.D. 0.438, 0.767. The value of t is -3.618 at 0.000 significant levels. It means there is significant difference exists (the level of significant level for t-test is less than 0.05) between the opinions of respondents of various organisations towards Factor 3. The mean value for the respondents of various organisations towards Globalization (Factor 4) is 4.06, 4.10 with value of S.D. 0.482, 0.836. The value of t is -0.561 at 0.575 significant levels. It means there is no significant difference exists (the level of significant level for t-test is greater than 0.05) between the opinions of respondents of various organisations towards Factor 4.

The mean value for the respondents of various organisations towards Time Efficiency (Factor 5) is 4.15, 4.45 with value of S.D. 0.478, 0.582. The value of t is -5.630 at 0.000 significant levels. It means there is significant difference exists (the level of significant level for t-test is less than 0.05) between the opinions of respondents of various organisations towards Factor 5. The mean value for the respondents of various

organisations towards Client Oriented (Factor 6) is 4.01, 3.97 with value of S.D. 0.708, 1.100. The value of t is 0.378 at 0.705 significant levels. It means there is no significant difference exists (the level of significant level for t-test is more than 0.05) between the opinions of respondents of various organisations towards Factor 6.

To sum up, respondents have same opinion towards Faster Communication, Employee Management and Client Oriented while they have different opinion towards Improvements, Benefits and Time Efficiency.

One-way ANOVA for Experience-wise Analysis of Employees

Table 5 interprets that the mean value for the respondents of various organisations towards Faster Communication (Factor 1) is 4.10, 4.11, 4.06 and 3.89 with value of S.D. 0.749, 0.395, 0.285 and 0.301. The value of F is 0.443 at 0.722 significant values. It means there is no significant difference exists (the value of significant level for F-test is more than 0.05) between the opinions of respondents of various organisations towards Factor 1. The mean value for the respondents of various organisations towards Improvements (Factor 2) is 3.85, 4.07, 3.97, 3.63 with value of S.D. 0.714, 0.405, 0.353, 0.286. The value of F is 4.220 at 0.006 significant values. It means there is significant difference exists (the value of significant level for F-test is less than 0.05) between the opinions of respondents of various organisations towards Factor 2.

Table 5: One-way ANOVA for Experience-wise Analysis of Employees

Factors	Experience (Years)	N	Mean	Std. Deviation	F Value	Sig. Level
Faster Communication	Below 5	247	4.10	0.749	0.443	0.722
	5-10	120	4.12	0.395		
	10-15	22	4.06	0.285		
	Above 15	11	3.89	0.302		
Improvements	Below 5	247	3.86	0.715	4.220	0.006
	5-10	120	4.08	0.405		
	10-15	22	3.98	0.354		
	Above 15	11	3.64	0.287		
Benefits	Below 5	247	4.21	0.721	3.653	0.013
	5-10	120	4.07	0.459		
	10-15	22	3.95	0.375		
	Above 15	11	3.73	0.261		
Employee Management	Below 5	247	4.13	0.821	0.991	0.397
	5-10	120	4.03	0.365		
	10-15	22	4.02	0.317		
	Above 15	11	3.88	0.225		
Time Efficiency	Below 5	247	4.36	0.592	3.202	0.023
	5-10	120	4.20	0.478		
	10-15	22	4.27	0.505		
	Above 15	11	4.05	0.151		
Client Oriented	Below 5	247	4.09	0.988	2.565	0.054
	5-10	120	3.85	0.785		
	10-15	22	3.86	0.834		
	Above 15	11	3.64	0.809		

Source: Field Survey

The mean value for the respondents of various organisations towards Benefits (Factor 3) is 4.20, 4.07, 3.95, 3.72 with value of S.D. 0.720, 0.458, 0.375, 0.261. The value of F is 3.653 at 0.013 significant values. It means there is significant difference exists (the value of significant level for F-test is less than 0.05) between the opinions of respondents of various organisations towards Factor 3. The mean value for the respondents of various organisations towards Employee Management (Factor 4) is 4.12, 4.03, 4.01, 3.87 with value of S.D. 0.821, 0.365, 0.316, 0.224. The value of F is 0.991 at 0.397 significant values. It means there is no significant difference exists (the value of significant level for F-test is more than 0.05) between the opinions of respondents of various organisations towards Factor 4.

The mean value for the respondents of various organisations towards Time Efficiency (Factor 5) is 4.36, 4.20, 4.27, 4.04 with value of S.D. 0.592, 0.478, 0.505, 0.150. The value of F is 3.202 at 0.023 significant values. It means there is significant difference exists (the value of significant level for F-test is less than 0.05) between the opinions of respondents of various organisations towards Factor 5. The mean value for the respondents of various organisations towards Client Oriented (Factor 6) is 4.08, 3.85, 3.86, 3.63 with value of S.D. 0.987, 0.784, 0.835, 0.809. The value of F is 2.565 at 0.054 significant values. It means there is no significant difference exists (the value of significant level for F-test is more than 0.05) between the opinions of

respondents of various organisations towards Factor 6.

To sum up, respondents have same opinion towards Faster Communication, Employee Management and Client Oriented. While they have different opinion towards Improvements, Benefits, Time Efficiency.

One-way ANOVA for Income-wise Analysis of Employees

The mean value for the respondents of various organisations towards Faster Communication (Factor 1) is 4.23, 4.06, 4.09, 4.15 with value of S.D. 0.527, 0.735, 0.413, 0.367. The value of F is 1.101 at 0.349 significant values. It means there is no significant difference exists (the value of significant level for F-test is more than 0.05) between the opinions of respondents of various organisations towards Factor 1. The mean value for the respondents of various organisations towards Improvements (Factor 2) is 4.30, 3.79, 4.00, 4.04 with value of S.D. 0.331, 0.717, 0.370, 0.358. The value of F is 11.144 at 0.000 significant values. It means there is significant difference exists (the value of significant level for F-test is less than 0.05) between the opinions of respondents of various organisations towards Factor 2 (Table 6).

The mean value for the respondents of various organisations towards Benefits (Factor 3) is 3.79, 4.25, 4.05, 4.08 with value of S.D. 0.964, 0.609, 0.427, 0.341. The value of F is 8.513 at 0.000 significant values. It

Table 6: One-way ANOVA for Income-wise Analysis of Employees

Factors	Income (Lakhs)	N	Mean	Std. Deviation	F Value	Sig. Level
Faster Communication	Below 2	50	4.23	0.527	1.101	0.349
	2-5	236	4.06	0.735		
	6-8	80	4.09	0.414		
	Above 8	34	4.16	0.368		
Improvements	Below 2	50	4.30	0.331	11.144	0.000
	2-5	236	3.80	0.718		
	6-8	80	4.00	0.370		
	Above 8	34	4.05	0.359		
Benefits	Below 2	50	3.80	0.965	8.513	0.000
	2-5	236	4.25	0.609		
	6-8	80	4.05	0.427		
	Above 8	34	4.08	0.341		
Employee Management	Below 2	50	4.00	1.207	0.588	0.623
	2-5	236	4.12	0.647		
	6-8	80	4.04	0.365		
	Above 8	34	4.09	0.370		
Time Efficiency	Below 2	50	4.60	0.452	5.971	0.001
	2-5	236	4.27	0.582		
	6-8	80	4.24	0.503		
	Above 8	34	4.21	0.463		
Client Oriented	Below 2	50	3.32	1.421	13.643	0.000
	2-5	236	4.17	0.775		
	6-8	80	3.85	0.813		
	Above 8	34	4.09	0.712		

Source: Field Survey

means there is significant difference exists (the value of significant level for F-test is less than 0.05) between the opinions of respondents of various organisations towards Factor 3. The mean value for the respondents of various organisations towards Employee Management (Factor 4) is 4.00, 4.12, 4.04, 4.08 with value of S.D. 1.206, 0.647, 0.365, 0.369. The value of F is 0.588 at 0.623 significant values. It means there is no significant difference exists (the value of significant level for F-test is more than 0.05) between the opinions of respondents of various organisations towards Factor 4.

The mean value for the respondents of various organisations towards Time Efficiency (Factor 5) is 4.60, 4.26, 4.24, 4.20 with value of S.D. 0.451, 0.582, 0.503, 0.462. The value of F is 5.971 at 0.001 significant values. It means there is significant difference exists (the value of significant level for F-test is less than 0.05) between the opinions of respondents of various organisations towards Factor 5. The mean value for the respondents of various organisations towards Client Oriented (Factor 6) is 3.32, 4.16, 3.85, 4.08 with value of S.D. 1.420, 0.775, 0.812, 0.712. The value of F is 13.643 at 0.000 significant values. It means there is significant difference exists (the value of significant level for F-test is less than 0.05) between the opinions of respondents of various organisations towards Factor 6.

To sum up, respondents have same opinion towards Faster Communication, Employee Management while they have different opinion towards

Improvements, Benefits, Time Efficiency and Client Oriented.

One-way ANOVA for Type of Organisation-wise Analysis of Employees

Table 7 clarifies that the mean value for the respondents of MNC, Domestic, public bank, private bank towards Faster Communication (Factor 1) is 4.07, 3.79, 4.21, 4.09 with value of S.D. 0.370, 0.397, 0.514, 1.015. The value of F is 3.290 at 0.021 significant values. It means there is significant difference exists (the value of significant level for F-test is less than 0.05) between the opinions of respondents of various organisations towards Factor 1. The mean value for the respondents of various organisations towards Improvements (Factor 2) is 4.01, 3.92, 3.59, 4.09 with value of S.D. 0.405, 0.565, 0.699, 0.735. The value of F is 14.374 at 0.000 significant values. It means there is significant difference exists (the value of significant level for F-test is less than 0.05) between the opinions of respondents of various organisations towards Factor 2.

The mean value for the respondents of various organisations towards Benefits (Factor 3) is 4.03, 3.99, 3.88, 4.62 with value of S.D. 0.424, 0.537, 0.787, 0.538. The value of F is 33.256 at 0.000 significant values. It means there is significant difference exists (the value of significant level for F-test is less than 0.05) between the opinions of respondents of various organisations towards Factor 3. The mean value for the respondents of various organisations towards Employee

Table 7: One-way ANOVA for Type of Organisation-wise Analysis of Employees

Factors	Type of Organisation	N	Mean	Std. Deviation	F Value	Sig. Level
Faster Communication	MNC	175	4.07	0.371	3.290	0.021
	Domestic	25	3.79	0.398		
	Public Bank	100	4.22	0.514		
	Private Bank	100	4.10	1.016		
Improvements	MNC	175	4.01	0.405	14.374	0.000
	Domestic	25	3.92	0.565		
	Public Bank	100	3.60	0.700		
	Private Bank	100	4.10	0.736		
Benefits	MNC	175	4.03	0.425	33.256	0.000
	Domestic	25	3.99	0.538		
	Public Bank	100	3.89	0.788		
	Private Bank	100	4.62	0.538		
Employee Management	MNC	175	4.09	0.480	0.645	0.587
	Domestic	25	3.91	0.476		
	Public Bank	100	4.11	0.853		
	Private Bank	100	4.10	0.824		
Time Efficiency	MNC	175	4.19	0.457	37.285	0.000
	Domestic	25	3.84	0.515		
	Public Bank	100	4.18	0.570		
	Private Bank	100	4.73	0.452		
Client Oriented	MNC	175	4.02	0.739	3.415	0.018
	Domestic	25	3.96	0.455		
	Public Bank	100	4.18	0.809		
	Private Bank	100	3.77	1.302		

Management (Factor 4) is 4.09, 3.90, 4.11, 4.10 with value of S.D. 0.480, 0.476, 0.853, 0.824. The value of F is 0.645 at 0.587 significant values. It means there is no significant difference exists (the value of significant level for F-test is more than 0.05) between the opinions of respondents of various organisations towards Factor 4.

The mean value for the respondents of various organisations towards Time Efficiency (Factor 5) is 4.19, 3.84, 4.17, 4.72 with value of S.D. 0.457, 0.514, 0.570, 0.451. The value of F is 37.285 at 0.000 significant values. It means there is significant difference exists (the value of significant level for F-test is less than 0.05) between the opinions of respondents of various organisations towards Factor 5. The mean value for the respondents of various organisations towards Client Oriented (Factor 6) is 4.01, 3.96, 4.18, 3.77 with value of S.D. 0.738, 0.454, 0.808, 1.301. The value of F is 3.415 at 0.018 significant values. It means there is significant difference exists (the value of significant level for F-test is less than 0.05) between the opinions of respondents of various organisations towards Factor 6.

To sum up, respondents have same opinion towards Employee Management while they have different opinion towards Faster Communication, Improvements, Benefits, Time Efficiency and Client Oriented.

T-test for Gender-wise Analysis of Employees

Table 8 shows that the mean value for the respondents towards Faster Communication (Factor 1) is 4.24, 3.83 with value of S.D. 0.507, 0.745. The value of t is 6.460 at 0.000 significant levels. It means there is significant difference exists (the level of significant level for t-test is less than 0.05) between the opinions of respondents of various organisations towards Factor 1. The mean value for the respondents of various organisations towards Improvements (Factor 2) is 3.91, 3.94 with value of S.D. 0.647, 0.569. The value of t is -0.562 at 0.574 significant levels. It means there is no significant difference exists (the level of significant level for t-test is more than 0.05) between the opinions of respondents of various organisations towards Factor 2.

Table 8: T test for Gender-wise Analysis of Employees

Factors	Gender	N	Mean	Std. Deviation	t Value	Sig. (2-tailed)
Faster Communication	Male	257	4.24	0.507	6.460	0.000
	Female	143	3.84	0.746		
Improvements	Male	257	3.91	0.647	-0.562	0.574
	Female	143	3.95	0.570		
Benefits	Male	257	4.20	0.551	2.710	0.007
	Female	143	4.03	0.751		
Employee Management	Male	257	4.14	0.597	2.178	0.030
	Female	143	3.99	0.806		
Time Efficiency	Male	257	4.27	0.546	-1.246	0.213
	Female	143	4.35	0.564		
Client Oriented	Male	257	4.04	0.887	1.347	0.179
	Female	143	3.91	0.985		

The mean value for the respondents of various organisations towards Benefits (Factor 3) is 4.20, 4.02 with value of S.D. 0.551, 0.751. The value of t is 2.710 at 0.007 significant levels. It means there is significant difference exists (the level of significant level for t-test is less than 0.05) between the opinions of respondents of various organisations towards Factor 3. The mean value for the respondents of various organisations towards Globalization (Factor 4) is 4.14, 3.98 with value of S.D. 0.569, 0.806. The value of t is 2.178 at 0.030 significant levels. It means there is significant difference exists (the level of significant level for t-test is less than 0.05) between the opinions of respondents of various organisations towards Factor 4.

The mean value for the respondents of various organisations towards Time Efficiency (Factor 5) is 4.27, 4.34 with value of S.D. 0.546, 0.563. The value of

t is -1.246 at 0.213 significant levels. It means there is no significant difference exists (the level of significant level for t-test is more than 0.05) between the opinions of respondents of various organisations towards Factor 5. The mean value for the respondents of various organisations towards Client Oriented (Factor 6) is 4.03, 3.90 With value of S.D. 0.887, 0.985. The value of t is 1.347 at 0.179 significant levels. It means there is no significant difference exists (the level of significant level for t-test is more than 0.05) between the opinions of respondents of various organisations towards Factor 6.

To sum up, respondents have same opinion towards Improvements, Time Efficiency and Client Oriented while they have different opinion towards Faster Communication, Benefits and Employee Management.

CONCLUSION

From the analysis it can be concluded that respondents from different organisations have different opinion towards all the Factors Faster Communication, Improvements, Benefits, Employee Management, Time Efficiency and Client Oriented. Respondents of different age groups have same opinion towards Faster Communication, Employee Management and Time Efficiency while they have different opinion towards Improvements, Benefits, and Client Oriented. Respondents of different sector have same opinion towards Faster Communication, Employee Management and Client Oriented while they have different opinion towards Improvements, Benefits and Time Efficiency.

Respondents of different experience have same opinion towards Faster Communication, Employee Management and Client Oriented. While they have different opinion towards Improvements, Benefits, Time Efficiency. Respondents of different income groups have same opinion towards Faster Communication, Employee Management while they have different opinion towards Improvements, Benefits, Time Efficiency and Client Oriented. Respondents of different type of organisations have same opinion towards Employee Management while they have different opinion towards Faster Communication, Improvements, Benefits, Time Efficiency and Client Oriented. Respondents of different gender have same opinion towards Improvements, Time Efficiency and Client Oriented while they have different opinion towards Faster Communication, Benefits and Employee Management.

SUGGESTIONS

1. e-HRM is client oriented. If clients are happy with it then employees are automatically satisfied with it.
2. Employees have to take more and more part in online discussions of the organisation so that they feel recognized in the organisation.
3. Employees have to discuss their problems so that their queries are removed and they feel satisfied.
4. E-HRM enjoys complete transparency in the system. No information can be retained as secret in the organization with the help of e-HRM. All of the information should be is easily available on the portal to satisfy the employees.
5. Employees have to self manage 'employee management'.
6. Administrative burden can be reduced by

implementing e-HRM thus the employees will feel satisfied.

7. Today time management is must for everyone and e-HRM helps in Time Management.
8. As e-HRM supports multi-language thus can overcome cross-cultural barriers.

REFERENCES

- Armstrong, Michael (2006). *A Handbook of Human Resource Management Practice*. New Delhi: Kogan Page, 10th ed.
- Ashwathappa K. (2007). *Human Resource Management*. New Delhi: Tata McGraw Hill, 5 ed.
- Bhatia, S.K. (2006). *Human Resource Management- A Competitive Advantage*. New Delhi: Deep & Deep Publications Pvt. Ltd.
- Bondarouk, T. and Loosie, J.K. (2005). HR contribution to IT innovation implementation results of three case studies. *Creativity and Innovation Management*. 14, 2, 160-168.
- Bondarouk, T & Ruel, H.J.H. (2006, Nov 4-5). Quantitative Study in a Dutch Ministry, paper presented at 4th international conference of the Dutch HRM network. Enshede, the Netherlands.
- Doughty, M. (2000). The role of e-HR and organisation. www.Brite-HR.com
- Gardner, S.D., Lepak, D.P. and Bartol, K.M. (2003). Virtual HR: the impact of information technology on the human resource professional. *Journal of Vocational Behavior*. 63, 159-79.
- Globetronics Multimedia Technology Sdn. Bhd., 2003. Gupta, A.K. (2008). *Management Information Systems*. New Delhi: Sultan Chand & Sons.
- Gupta, S.C. (2008). *Advanced Human Resource Management*. New Delhi: Ane Books India.
- Hahn, Judith Kaye, CPP, VHR, Vice President of HR, GHG CORPORATION, 2008.
- Hawking, P., Stein, A. Victoria, A. & Foster (2004). E-HR and Employee self service: A Case Study of a Victorian public sector organisation. www.google.com
- Kettley, P. & Reiley, P. (2003). E-HR: An introduction. *IES Report*. 398.
- Lepak, D.P., & Snell, S.A. (1998). Virtual HR: strategic human resource management in the 21st century. *Human Resource Management Review*. 8, 3, 215-234.
- Prasad, L.M. (2003). *Human Resource Management*. New Delhi: Sultan Chand & Sons.
- Ruel, H.J.M., Bondarouk, T.V., & Loosie, J.C. (2004). *e-HRM: innovation or irritation. An exploration of web-*

based Human Resource Management in large companies. Lemma Publishers: Utrecht. Second European workshop on e-HRM. (2008, May 29-30).

The first European academic workshop: "The Future of Electronic HRM (e-HRM) research", Twente university, Netherlands. (2006, Oct 25-26).

Torres, Teresa & Mario, Arias (2007). *Encyclopedia of Human Resource Information Systems: challenges in e-HRM*.

Venkatesh, V., Morris, M.G., Davis, G.B. and Davis, F.D. (2003). User acceptance of information technology: toward a unified view. *MIS Quarterly*. 27, 3, 425-78.

Voemans, M. & Veldhoven, M.V. (2007). Empirical Study at Philips. *Emerald Group Journal*. 36, 6, 887-902.

Walker, A.J. (2001). *Web-Based Human Resources: The Technologies and Trends That Are Transforming HR*. New Delhi: Tata McGraw Hill.

Wright, P.M., McMahan, G.C., Snell, S.A., & Gerhart, B. (2001). Comparing line and HR executives' perceptions of HR effectiveness: services, roles, and contributions. *Human Resource Management*. 40, 2, 111-123.

Web Resources :

www.personneltoday.com

www.indianmba.com

www.e-HRMresearch.org

www.ideas.repec.org

www.icfaipress.org

ROLE STRESS AMONG EMPLOYEES: AN EMPIRICAL STUDY OF COMMERCIAL BANKS

Jyoti Sharma*
Arti Devi**

Table of Contents

- Abstract
- Introduction
- Previous Studies
- Research Methodology
- Conclusion and Policy Implications
- Limitations and Scope for Future Research
- References

ABSTRACT

Stress has been on a rise in this era of high-technology speed, global competition and consumerism. Taking its toll on the physical and psychological health of the employees, it is affecting the productivity and functioning of an organization. Researchers have demonstrated the direct and indirect costs of stress (Matteson and Ivancevich, 1987). Due to its cost, the critical importance of a stress-free work-life for an organization for creating and sustaining competitive advantage cannot be underestimated and it comes with the realization that employees are susceptible to high levels of stress. According to Kalia (2002), an estimate of The World Health Organization (WHO) Global Burden of Disease Survey shows that mental health disease, including stress-related disorders, will be the second leading cause of disabilities by the year 2020. A survey in 2007 by Associated Chamber of Commerce and Industry of India also reported that work related stress and mental fatigue is affecting the Indian employees (www.assochem.org). In such an environment, it becomes the responsibility of the employing organizations and the individual to identify the causes of stress at the workplace and make efforts to reduce them for the effectiveness and efficiency of the individual and the organization itself.

INTRODUCTION

At workplace, stress related to the role performed by the employee in the organization is one of the important determinants of successful adjustment and subsequent performance of an employee. The

stress induced due to roles performed by individuals as employees has been a potent organizational stressor (Kahn et al., 1964; Srivastava, 2007) the outcomes of which have been found to be costly to the organization (Fisher and Gitelson, 1983). One of the pioneers of research on organizational role stress, Pareek (1993) has reiterated that the performance of a role in an organization has built in potential for conflict due to which stress may start rearing its head. Such stress can contribute to various dysfunctional outcomes for the organization like job related tensions, job dissatisfaction, lower performance, etc. (Behrman and Perreault, 1984; Singh, 1992; Shahu & Gole, 2008). In such circumstances, efforts to sustain a high level of work performance over time can be a tedious task for organizations as well as employees.

Considering role stress as a debilitating syndrome, this study has been undertaken with an aim to systematically investigate the factors causing role stress amongst bank professionals. Banks are among the top ten high stress workplaces (www.banknet.india.com) in India. Elucidating the causes of role stress is important not only for its potential implications for stress management at banks but also for enhancing an understanding of strategic human resource management. With this aim, the study makes an effort to identify the sources of role stress experienced by the employees of commercial banking sector. In the next section the relevant literature is presented. This is followed by Section II which discusses the data base and the research methodology. While Section III makes an attempt to explore the broad dimensions of role stress, with an application of factor analysis, applicable to both public and private sector banks, Section IV tries to find out significant differences in the experience of role stressors across public and private sector banks. The study is concluded with Section V examining managerial implications of the results and suggestions for future research.

SECTION I PREVIOUS STUDIES

Stress is associated with impaired individual functioning in the workplace. A number of aspects of

*Assistant Professor, School of Business, Shri Mata Vaishno Devi University-182320
**Lecturer, School of Business, Shri Mata Vaishno Devi University-182320

working life have been linked to stress. Elucidating these causes has been imperative for it may have direct implications for the assessment of the demands on the physical, psychological and emotional well-being of the employees as stressors may lead to ill health, anxiety, dissatisfaction, irritation and depression amongst employees (Sparks et al., 2001; Caplan, 1985; Parasuraman et al., 1981; Pal & Vasudeva, 1989; Ivancevich et al., 1982). Not only health, stress at workplace also impacts capability to solve problems and subsequent satisfaction with the job (Elfering et al., 2005; Jonge et al., 2001; Singh & Singh, 1984). Researchers have applied role-theory to understand stress problems at work and to examine how role pressures contribute to occupational stress (Gupta and Adhikari, 2008). There has been a growing support for the argument that role of the employee in the organization may create conditions that cause stress for employees at work affecting the quality of work life. Such Organizational role stress has been found to be negatively related to managerial effectiveness (Srivastava, 2009). A number of role based factors such as lack of power, role ambiguity, and role conflict (Burke, 1988; Nelson and Burke, 2000) can be stressful. Role overload, lack of senior level support, lack of group cohesiveness, inequity at workplace, role stagnation, resource inadequacy in the role, constraints of change contribute to the stress of employees (Kumar, 2006; Singh, 1989; Driscoll, 1994; Sen, 1981; Sharma & Devi, 2008). In special context to employees in the service sector, who are aggressively involved in direct dealing with the customers, role stress has been found to be very important in determining their commitment to the organization and satisfaction with supervisor and their intention to leave the organization (Dubinsky et al., 1984). Although the dynamics of role stress among other professionals and in other settings are relatively well documented (Rutter et al., 2002; Narayanan et al., 1999), understanding the causes of role stress among Bank professionals is of paramount importance for their well-being and formulation of stress management programmes. The banking sector is one of the emerging areas of service sector which is expanding very rapidly in the recent past. The market and customer orientation in commercial banks has put considerable pressure on the employees, especially front line employees. The front line employees of banking sector, who are in boundary spanning positions, endeavor to meet the needs of customers while attempting to fulfill the expectations of managers. An attempt to meet conflicting demands often leads to role stress (Wetzels et al., 2000), which impacts customer orientation of these employees and their job performance (Flaherty

et al., 1999). Associated Chamber of Commerce and Industry of India (ASSOCHAM), in a study conducted in 2007, has also reported that those working in the banking sector - both public and private- tend to get stressed as they have to attract a large pool of customers for various schemes besides ensuring timely recovery of loans (www.assochem.org/prels). This study will provide crucial information about the prevalence of specific role stressors at commercial banks. It shall also provide a unique glimpse at the significant public and private sector differences in exposure to the role stressors at the workplace, the studies in which regard have been found to be relatively less.

SECTION II RESEARCH METHODOLOGY

Sample

With an aim to assess the causes of role stress, a total of 530 frontline employees from various public and private sector banks were surveyed for their experience on role stress. The anonymous responses of the bank employees were taken through questionnaire during the period of August, 2009 to January, 2010. However, 29 responses did not fully qualify to be included in the final analysis due to incomplete information provided in the questionnaire. So, the responses of only 501 respondents were found to be suitable for inclusion in the study. Majority of the employees (38 per cent) belonged to the age bracket of 21-30 years and maximum (34 per cent) were found to earn a salary between Rs. 21000 to Rs. 30000 per month. Of all, maximum number of the respondents were married and majority of the sample respondents had a graduation degree. Public and private sector commercial banks had an equal representation in the sample and the mean work experience of the sample respondents was 12.5 years.

Study Design

In order to identify the sources of role stress experienced by the commercial bank employees in Jammu and Kashmir State of India, a pre-tested questionnaire has been used. The development of the research instrument was based on the existing measurement scale. Organizational Role Stress (ORS) scale developed by Pareek (Pareek, 2005) has been used as the reference for development of the research instrument. Pestonjee (1992) observed that ORS is certainly one of the best instruments available presently for measuring role stress which is also corroborated by Srivastava (2007). However, to take into consideration the local requirements of employees especially of

banking sector of Jammu and Kashmir State of India, ORS scale of Pareek was taken as base. The base was then used to generate a 30-item scale which was designed to tap the role stress of the individuals in the organization. The modifications for local consideration were made after interviewing a total of 100 employees of banking sector of Jammu and Kashmir before the final designing of questionnaire. Responses on the scale were given via the use of five-point likert type scale ranging from Strongly Agree to Strongly Disagree. An assessment of the reliability of the scale, using inter-item Cronbach Alpha, resulted into the retention of 22 statements assessing the role stress. The reliability of modified version of role stress scale was also estimated using the split-half method on a sample of 70 employees which was found to be reliable. Besides, the estimated value of Cronbach Alpha of modified version of the role stress scale i.e. 0.805 also display that the modified scale is reliable. Further, to ensure the content validity of the scale, the view points of experts in the field and from banks regarding the modified role stress scale were taken which ensured about its face validity.

**SECTION III
FACTOR ANALYTICAL APPROACH**

In order to identify the role dimensions contributing to the role stress of employees, the statistical technique 'Factor Analysis', which examines the relationships among various interrelated variables and represents them in terms of a few underlying factors, was applied. The scale was analyzed using principle component analysis with varimax rotation with the help of SPSS package version 14.0. Codes 1, 2, 3, 4, 5 have been assigned to all the positive statements whereas the negative statements have been coded reversely. Initially, tests for adequacy of the data for the application of factor analysis (Stewart,

1981) were conducted. It was found that the value of the Kaiser-Meyer-Okin (KMO) measure of sampling adequacy statistic was 0.714, which is quite large. Moreover, the correlation matrix revealed that there was enough correlation for the application of factor analysis. Besides, the Bartlett's Test of Sphericity value was found to be 1849.702 which was also highly significant ($p < 0.001$). Eventually, the decision for arriving at the number of factors to be retained was made on the basis of Latent Root Criterion i.e. variables having eigen values greater than 1. Factors having loadings greater than or equal to 0.40 (ignoring the signs) were retained (Dixon, 1997). The solution yielded eight interpretable factors.

The eight factors so derived account for 60.35 per cent of the total variance. This indicates that 60.35 per cent of the total variance is represented by the information contained in the factor matrix. Further, the percentage of total variance explained by factors I to VIII indicate the extent to which a particular factor solution accounts for what all the variables together represent. The communalities shown indicate the amount of variance a variable shares with all the other variables being considered. Large communalities reflect that a large amount of variance has been accounted for by the factor solution.

The names of the factors, the statement labels, and the respective factor loadings are summarized in table 1. The relationship between the original variable and its factor is represented by the factor loading. Also, the signs are interpreted in the same mode as are correlation coefficients. On each factor 'like signs' of factor loadings indicate that factor loadings and factors are positively correlated and 'opposite signs' indicate that factor loadings and factors are negatively correlated.

Table 1: Role Related Variables and Underlying Role Characteristics Representing these Variables

F₁	Role Indistinctness	Loadings
S ₉	I know what the people I work with expect of me.	-0.75
S ₁₄	I have to work under vague and unclear directions.	0.73
S ₅	I am not clear on the scope and responsibilities of my role.	0.66
F₂	Role Excess	
S ₁₆	I cannot do much more than what I have been assigned.	0.73
S ₇	I have so much work that I do not have time to think about maintaining quality.	0.72
S ₂₂	I am assigned tasks without much resource to complete it.	0.60
S ₃	I feel that the amount of work I have to do is more than it should be.	0.49

F₃ Role Invasiveness		
S ₆	I have various other interests (social, religious, etc.) which remain neglected because I do not get time to attend to these.	0.77
S ₁	I am not able to give time to my family because of work.	0.64
S ₁₉	My family and friends complain that I do not spend time with them due to the heavy demands of my work role.	0.61
F₄ Role Divergence		
S ₁₁	I am not able to satisfy the demands of clients and others, since these are conflicting with one another.	0.70
S ₄	I have adequate knowledge to handle the responsibilities in my role.	-0.57
S ₂	I am able to satisfy the conflicting demands of various people above me.	-0.53
F₅ Role Augmentation		
S ₁₅	I see many growth opportunities for myself.	-0.72
S ₁₀	I have enough time and opportunities to prepare myself for the future challenges of my role.	-0.65
F₆ Self-Diminution		
S ₁₇	If I had full freedom to define my role, I would be doing some things differently from the way I do them now.	0.76
S ₂₁	I need more training and preparation to do my work properly.	0.53
S ₈	I should have given more attention to the development of skills which I need.	
0.45		
F₇ Role Fortification		
S ₁₂	I have been given too much responsibility	0.72
S ₂₀	I want more challenging tasks to do.	0.64
F₈ Resource Shortage		
S ₁₃	I feel isolated at work	0.78

NAMING OF THE FACTORS

With the help of factor analysis, 22 statements were condensed into eight factors. The description of the eight factors is as follows:

F1 Role Indistinctness

Role Indistinctness has emerged as the most important factor accounting for 14.20 per cent of the total variance. Three statements are loaded on this factor. It suggests that respondents experience role stress because of non-clarity of issues, ambiguous directions, unclear scope and responsibilities in the role. These reasons signify the indistinctness in the role of the employee. The relatively higher loading of

all the statements on this factor indicates the relevance of this dimension for contributing to role stress in banks. This signifies that lack of clarity at workplace is the potent cause of role stress. This might mean that employees in banking sector are experiencing a system lacking in communication and planning of role expectations. Well laid out role expectations can help the employees envision the activities to be undertaken to meet the expectations. On the contrary, the employee becomes crippled if the expectations are not clear as he is not able to choose the interventions he must take to satisfy not only others' expectations but also of himself. Thus, vagueness or the lack of attention to these primary requirements is the major reason for the role stress of employees.

F2 Role Excess

The second important dimension of role stress which emerged from factor analysis is Role Excess. This factor accounts for 12.59 per cent of the total variance. This factor indicates that employees in the banking sector are facing excess expectations at work. The employees feel that the amount of the work they have been assigned touches the threshold of their maximum capacity. Moreover, the work is so much that they are unable to pay enough attention to the quality of work. They are also of the view that the assignment of tasks does not meet the expectation for the resources to complete it. The employees of banks are under continuous pressure to meet the targets and productivity levels and outperform the competitors. Recent downsizing and liberalization have also put the employees under the scanner to do more and more in less amount of time. All of this indicates that the employees are facing excess workload which coupled with quality issues and lack of resources is contributing to their role stress.

F3 Role Invasiveness

The invasive character of roles is another most important factor causing role stress which accounts for 6.81 per cent of the total variance. In today's dynamic business environment, employees are expected to work more and more, as is evident from the second most important factor i.e. role excess, due to which work occupies a major portion of their lives. As a result, very less or negligible time is left for family and other pursuits like religion, hobby, social functions, etc. This contributes to stress as employee feels unable to apportion the available time amongst different pursuits in life. Thus, the invasive nature of role where employee feels unable, physically or mentally, to attend to the non-work issues of his life contributes to role stress.

F4 Role Divergence

The fourth important role stressor has been found to be Role Divergence which explains 6.19 per cent of the total variance. Almost every employee yearns for smooth relationships at work not only with the other employees but also with the customers of the service they are offering. The employee also wants to satisfy his own expectations in the role. However, the divergent potential of the role where he may get contradictory, conflicting and opposing expectations from self, customers and other employees at work can cause role stress. Thus, employee becomes stressed because he feels that he is unable to satisfy the demands of clients, seniors and others due to their conflicting nature.

F5 Role Augmentation

Lack of scope for escalation of role is the next important stressor leading to role stress of employees at banks. This factor explains 5.76 per cent of the total variance. Table 2 shows the two statements which have been found to be loaded on this factor. The statements 'I see many growth opportunities for myself' and 'I have enough time and opportunities to prepare myself for the future challenges in my role' have gained negative loadings. It indicates lack of prospects for growth and the lack of time for preparation for growth contribute to role stress at work. This is quite relevant in the current scenario where competition for good positions and good pay package is very high. Employees are competitive and career oriented and wants the best deal for them. Lack of availability of such best deals, within the organization, leads them to make an effort for alternative opportunities outside the organization which consumes their time of work as well as off work leading to stress.

F6 Self-Diminution

The factor 'Self-Diminution' accounts for 5.17 per cent of the total variance. Three statements namely, 'If I had full freedom to define my role, I would be doing some things differently from the way I do them now', 'I need more training and preparation to do my work properly', 'I should have given more attention to the development of skills which I need' are found to be loaded on this dimension of role stress. In other words, personal shortness in the role can be a contributor to role stress to a great extent. However, this self-diminution can be because of system dynamics at work, as is evident from the first statement loaded on this factor, thereby indicating jamming nature of the system at workplace which does not encourage employee latitude in working. It may also be due to inadequacy of the skills, knowledge, and expertise on the part of the individual himself. In this manner, self-diminution is leading towards role stress at banks.

F7 Role Fortification

Factor analysis has acknowledged 'Role Fortification' as another independent role related factor contributing to the role stress of the respondents. Explaining 4.90 per cent of the total variance, two statements have loaded on this factor and it has been found to have an eigen value of 1.08. Table 2 illustrates that the variable 'I have been given too much responsibility' has got the highest loading of 0.72, which has been followed by variable 'I want more challenging tasks to do' with loading 0.64. It reveals that prevalence of too much responsibility for tasks leads to stress.

However, the tasks at banks are routine and monotonous which may not test the stretchable limits of the person making him yearn for challenging tasks and hence stressed. Therefore, constructs for enrichment of roles could impact the level of role stress at workplace.

F8 Resource Shortage

'Resource Shortage' has been revealed as another independent role related factor with eigen value 1.04. This factor explains 4.74 per cent of the total variance and as Table 1 displays two variables are loaded on this factor namely, 'I feel isolated at work' and 'I do not lack the necessary facilities needed to carry out different varieties of tasks in my role'. It reveals that the respondents of the present study experience more stress when they are devoid of resources, human and material, at work. Isolation of the employee, making him unable to receive and give help to other roles, leads to role stress. Similarly, negative loading on the second variable, as shown by Table 1, indicates that the employees who perceive a lack of resources for the execution of tasks in his role experience role stress.

SECTION IV

An attempt has been made in this section to throw light on significant differences in the experience of various aspects of role stress across public and private sector banks in Jammu and Kashmir State. The null hypothesis for the present section is:

H1: There is no significant difference in the experience of various dimensions of role stress in public and private sector banks.

Table 2 depicts a dimension-wise comparison of role stress as perceived by the employees of public and private sector banks.

A perusal of Table 2 reveals that 'role augmentation' is one such constituent of role stress where private sector banks scored appreciably lower than the public sector banks. The banks from the two sectors have also significantly differed on this dimension at 5 per cent level of significance indicating employee perception of greater growth opportunities in the private sector which in due course influences role stress. Private sector bank employees are here, notably, less stressful than

Table 2: Dimension-wise Comparison of Role Stress in Public and Private Sector Banks

Role Stress	Public ^a		Private ^b		T
	\bar{X}	σ	\bar{X}	σ	
Role Indistinctness	0.024	0.993	-0.024	1.008	0.54
Role Excess	-0.032	1.025	0.033	0.975	-0.73
Role Invasiveness	0.028	1.004	-0.029	0.997	0.63
Role Divergence	-0.009	1.091	0.009	0.900	-0.20
Role Augmentation	0.115	0.954	-0.116	1.034	2.59**
Self-Diminution	0.084	0.968	-0.085	1.027	1.89***
Role Fortification	0.136	0.973	-0.138	1.010	3.09*
Resource Shortage	0.060	1.021	-0.060	0.976	1.34

Note: an = 252, bn = 249, *significant at 1 per cent level of significance, **significant at 5 per cent level of significance, ***significant at 10 per cent level of significance, \bar{X} = Arithmetic Mean = Standard Deviation

public sector bank employees. This disclosure means that the public sector employees feel stressful for being pigeonholed in one position for long. A plateaued career is what faces most of the public sector employees who see their counterparts in the private sector growing in career and earning more money as well. The perceived lack of growth and learning opportunities in the public sector banks, which, in turn, might be an offshoot of saturation in the industry, has resulted into stress. On the contrary, banks in the private sector have been able to satiate the hunger for growth and learning opportunities of their employees through expansion, diversification, training and development. The absence of employee loyalty to one organization in the private sector may also be a factor due to which the employees have not reported to be relatively stressed on account of lack of opportunities for escalation in the role.

Similarly, on 'self-diminution' dimension of role stress, employees of the public sector feel more short of the skills, knowledge, expertise or in other words capability to meet the demands in their roles in comparison to the employees of the private sector. This difference between the two sectors has also been found to be significant at 10 per cent level of significance. Moreover, significant difference, at 1 per cent level of significance, has also been reported on 'role fortification' aspect of role stress indicating stress due to lack of enrichment of roles more a characteristic of public sector banks. This is reflected by the reorganization policies adopted by public sector banks whereby horizontal promotions devoid of enrichment of role assignments are granted (Ahmad & Shah, 2007). Confinement to routine operational tasks leads to monotony and boredom and eventually to stress. So, it can be said that as compared to private sector, public sector bank employees feel stagnant, tedium and self-short in their roles.

Public sector banks are also found to be marked by 'role indistinctness' which suggests that employees of the public sector banks perceive greater ambiguity and vagueness in their roles and consequently role stress. Employees in these banks see a lack of adequate information on changing role demands, responsibilities, role expectations and task priorities. However, the 't' value being insignificant implies that the employees of the two sectors do not significantly differ on this dimension of role stress. The quickly changing market rules surrounding the banking sector have infused increasing levels of uncertainty and imprecision in both public as well as private sector banks. On the contrary, the employees of the private sector have been found to be more burdened with the

excess role expectations, as is evident by the greater mean value secured on 'role excess' dimension. But, the relationship is again not found to be significant implying insignificant differences in public and private sector banks with respect to role excess dimension of role stress. The incessant pressures of achieving the targets and meeting the productivity levels to surpass the competitors have been the underlying force for demanding from employees in excess. Recent downsizing and liberalization in banking sector have also put surplus demands on the employees. Cascio (1993) has also found increase in workload of workforce consequent upon downsizing. Thus, excess role expectations are actually a characteristic of banking sector in general.

Similarly, there is insignificant difference among public and private sector banks as far as 'role invasiveness' is concerned. This indicates that the employees of both the types of banks perceive different role expectations interfering with each other's performance. It is likely that the excess role expectations prevalent in both public and private sector create hurdles in the employee's ability to meet expectations in roles other than work. With respect to 'role divergence' dimension of role stress, private sector banks with positive mean score have been exposed to divergent expectations at work more as compared to their counterparts. The reason attributed to this fact may be that private sector banks are not only characterised by high competition with other banks, both in the public and private sector, but also by competition within the bank, amongst various employees. Pressure to perform better may engulf an employee in vicious circle of opposing expectations from others at work who may also be trying to meet their own ends. However, the important point to note is that the difference has not been found to be significant which indicates employees of the public sector banks also getting influenced by role divergence. Differing expectations are usual when one's role is linked to various other roles at work. Also, the mean scores of public and private sector banks on 'resource shortage' indicate more shortage of resources in public sector compared to private sector. However, the difference is insignificant explaining that banks in both the sectors face stress due to the shortage of resources.

The results indicate that though, banks in the public sector are more characterised by role indistinctness, role invasiveness, role divergence, resource shortage and banks in private sector by role excess but the difference is statistically insignificant. However, statistically significant differences have been found for role augmentation, self-diminution and role

fortification in public and private sector banks. Therefore, the null hypothesis is partially rejected for the results implying vital differences for employee experiences in role augmentation, self-diminution and role fortification across public and private sector banks.

SECTION V

CONCLUSION & POLICY IMPLICATIONS

The foregoing analysis reveals that there are eight underlying role related factors which represent the twenty-two variables considered originally in the present study. The theoretical significance of the findings of this study is noteworthy as it has tried to explore the antecedents of organizational role stress in the commercial banks which are 'Role Indistinctness', 'Role Excess', 'Role Invasiveness', 'Role Divergence', 'Role Augmentation', 'Self-Diminution', 'Role Fortification', and 'Resource Shortage'. It has also pointed out the need for public sector banks, which significantly differ for employee experiences of role stress in role augmentation, self-diminution and role fortification, to give emphasis on providing opportunities for learning, training and development to its employees.

The policy implications of the study establish the relevance for development of platforms to intensify communication throughout the workplace which would not only reduce ambiguity at work but also help employees prioritize the tasks for better management of work. This becomes important as role indistinctness, role excess, role invasiveness and role divergence have emerged as crucial determinants of role stress at commercial banks. Since, the majority of role senders of the employees come from their immediate work group, it is suggested that attempts to relieve role stress, by focussing on communication, should concentrate on team or group support building and the development of individual communication skills (Smeltzer, 1987). Openness, by means of communication, at work shall also clarify and sort the divergent expectations in the role. Role divergence may be overcome by engaging in stricter policy enforcement (Bacharach et al., 2002) which may help in clearing any inconsistency between employee expectations and capabilities and others' expectations. Efforts to provide growth and learning opportunities to the employees must be encouraged to offset stress created by role augmentation, role fortification and self-diminution factors identified in the study. In special regard to the public sector banks where statistically significant differences for employee experiences of role stress in role augmentation, self-diminution and role fortification have been found, opportunities for growth

and learning in the form of training, development, challenging assignments, etc. have greater relevance. Building in job design features that increase the variety in work is likely to increase interest and motivation of the employees and will reduce role stress caused due to lack of it at public sector banks. Moreover, lack of adequate resources at work, which has been found to be a factor causing role stress, may end up in an experience of even greater workload as it may have direct negative effects and/or may interact with role excess dimension to produce negative effects (Chand & Sethi, 1997). Planning for making available the required resources is, therefore, imperative for reducing role stress at work.

LIMITATIONS AND SCOPE FOR FUTURE RESEARCH

In drawing conclusions it is important to note the limitation of the self-reporting nature of survey responses. Future research could usefully incorporate an analysis of the impact of role stress on physiological, behavioural, performance and other organizational outcomes. There is further scope to replicate the study in different environments and locations.

REFERENCES

- Ahmad, S. Fayyaz & Shah, Farooq A. (2007), "Role Stress of Officers and Clerks: An Empirical Study in Banking Industry", *Business Review*, Vol. 12, No. 2, pp. 1-9.
- Bacharach, S.B., Bamberger, P.A. and Sonnenstuhl, W.J. (2002), "Driven to Drink: Managerial Control, Work-related Risk Factors and Employee Problem Drinking", *Academy of Management Journal*, Vol. 45 No. 4, pp. 637-58.
- Behrman, Douglas N. & Perreault, William D. (1984), "A Role Stress Model of the Performance and Satisfaction of Industrial Salespersons", *Journal of Marketing*, 48, 9-21.
- Burke, R. J., (1988), "Sources of Managerial and Professional Stress in Large Organization", in Cooper C. L., Payne, R. (Eds.), *Causes, Coping and Consequences of Stress at Work*, John Wiley and Sons, Chichester, pp. 77-112.
- Caplan, Robert D (1985), "Psychosocial Stress in Work", *Management and Labour Studies*, Vol. 10(2), pp. 63-76.
- Cascio, W.F. (1993), "Downsizing: What do we know? What have we learned", *Academy of Management Executive*, Vol. 1, No. 1, pp. 95-104.

- Chand, P. and Sethi, A.S. (1997), "Organizational Factors in Development of Work Stress", *Indian Journal of Industrial Relations*, 32 (4), pp. 453-462
- Dixon, J.K. (1997), Grouping Techniques, in B.H.Munro (Ed.) *Statistical Methods for Health Care Research*, 3rd Edn, Philadelphia, PA; Lippincott, pp. 310-340.
- Driscoll, Michael P.; Beehr, Terry A. (1994), "Supervisor Behaviours, Role Stressors and Uncertainty as Predictors of Personal Outcomes for Subordinates", *Journal of Organizational Behaviour*, Vol. 15(2), pp. 141-155.
- Dubinsky, Alan J. & Yammarino, Francis J. (1984), "Differential Impact of Role Conflict and Ambiguity on Selected Correlates: A Two Sample Test", *Psychological Reports*, 55, 699-707.
- Elfering, Achim, Grebner, Simone, Semmer, Norbert K., Kaiser-Freiburghaus, Dora, Ponte, Sandra Lauper-Del, Witschi, Isabella (2005), "Chronic Job stressors and Job Control: Effects on Event-Related Coping Success and Well Being", *Journal of Occupational and Organizational Psychology*, Vol. 78(2), pp. 237-252.
- Fisher, Cynthia, D., and Gitelson, Richard (1983), "A Meta Analysis of the Correlates of Role Conflict and Ambiguity", *Journal of Applied Psychology*, Vol. 68, pp. 320-33.
- Flaherty, T.B., Dahlstrom, R. and Skinner, S.J. (1999), "Organizational Values and Role Stress as Determinants of Customer-Oriented Selling Performance", *Journal of Personal Selling & Sales Management*, Vol. 19 No. 2, pp. 1-18.
- Gupta, Palas R. and Adhikari, Ajoy (2008), "Role Stress in Nurses", *The ICFAI Journal of Organizational Behaviour*, Vol VII (1), pp. 49-56.
- Ivancevich, John M., Matteson, Michael T., Preston, Cynthia (1982), "Occupational Stress, Type A Behaviour, and Physical Well Being", *Academy of Management Journal*, Vol. 25 (2), pp. 373-391.
- Jonge, Jan de, Dormann, Christian, Janssen, Peter M.M, Dollard, Maureen F. (2001), "Testing Reciprocal Relationships Between Job Characteristics and Psychological Well-Being: A Cross-Lagged Structural Equation Model", *Journal of Occupational and Organizational Psychology*, Vol. 74, pp. 29-46.
- Kahn, R.L., Wolfe, D.M., Quinn, R.P., Snoeck, J.D. and Rosenthal, R.A. (1964), *Organizational Stress Studies in Role Conflict and Ambiguity*, New York: Wiley.
- Kalia, M. (2002), "Assessing the Economic Impact of Stress-the Modern Day Hidden Epidemic", *Metabolism*, Vol. 51 (6 Suppl 1), pp.49-53.
- Kumar, Dileep, M (2006), "A Study on Job Stress of Nationalized and Non Nationalized Bank Employees", http://www.indianmba.com/Faculty_Column.
- Matteson, M., & Ivancevich, J. (1987), *Controlling Work Stress: Effective Human Resource and Management Strategies*, San Francisco, Jossey-Bass.
- Narayanan L, Menon S, Spector PE, (1999), "Stress in the Workplace: A Comparison of Gender and Occupation", *Journal of Organizational Behavior*, 20, pp. 63-73.
- Nelson, D.L. and Burke, R.J. (2000), "Women Executives: Health, Stress, and Success", *Academy of Management Executive*, Vol. 14, No. 2, pp. 107-21.
- Pal, Madan; Vasudeva, Promila (1989), "Supervisory Style and Situational Favorableness as Related to Workers' Job-Satisfaction", *Indian Journal of Industrial Relations*, Vol. 24 (3).
- Parasuraman, Saroj, Alutto, Joseph A. (1981), "An Examination of the Organizational Antecedents of Stressors at Work", *Academy of Management Journal*, Vol. 24(1), pp. 48-67.
- Pareek, U. (1993), *Making Organizational Roles Effective*, Tata McGraw-Hill, New Delhi.
- Pareek, Udai (2005), *Training Instruments in HRD and OD*, Tata McGraw-Hill, New Delhi, pp. 536-547
- Pestonjee, D.M. (1992) *Stress and Coping-The Indian Experience*, 2nd edition, Sage Publications India Private Ltd., New Delhi
- Rutter H, Herzberg J, Paice E (2002), "Stress in Doctors and Dentists who Teach", *Medical Education*, 36, pp. 543-549.

Web Resources :

www.assochem.org
www.banknet.india.com
www.assochem.org/prels

CAUSAL RELATIONSHIP BETWEEN FDI INFLOWS AND SERVICES EXPORT- A CASE OF INDIA

Ms. Mousumi Bhattacharya*
Dr. Jita Bhattacharyya**

Table of Contents

- Abstract
- Introduction
- Review of Literature
- Data Analysis
- Conclusion
- References

ABSTRACT

An attempt is made to study the possible link among FDI inflows and services export of India the post-liberalization period 1990-91 Q1 to 2007-08 Q4. The long-term relationships among the variables are analysed using the Johansen and Juselius multivariate cointegration approach. Short and long run dynamics are captured through vector error correction models. There is evidence of cointegration among the variables, indicating that a long-term relationship exists among them. An unidirectional causality is observed from FDI inflows to services export. Regression Analysis is also done for the time period 1991 to 2008, which reveals that FDI inflows in the services sector, consultancy services, transport services influences services export.

This study has tried to narrow the gap that exists in the research literature in this field.

INTRODUCTION

The share of developing countries in world FDI inflows has increased from 17% in 1985-90 to about 26% during 1997-2002 and was about 36% in 2005(WIR, 2005). In terms of FDI as a percentage of gross fixed capital formation, the share rose up from 8% in 1985-90 to 12.6% during 1997-02.(UNCTAD, 2003). The share in the world total of FDI inflows to the services sectors in developing countries climbed from 35% in 1990 to more than 50% in 2007. So a massive surge of Foreign Direct Investment (FDI) inflows into developing countries during the past two decades has been observed. FDI is widely viewed as being one of the principal vehicles for the international transfer of technology. FDI results in increase in productive capital stock, technological growth, and facilitates transfer of

managerial skills, besides improving global market access. Some commonly observed growth impact of FDI inflows have been well documented in recent studies (*De Mello, 1996; Borensztein, et. al, 1998, Balasubramanyam, 1999*). In fact, the significant impact of these flows on export expansion, particularly in East Asian economies before the crisis of 1997-98, has generated a keen interest in exploring the linkages between FDI and exports.

The dynamics of the relationship between FDI and exports is far more complex in case of the Indian economy, which has a large domestic market size (population of 1.138 billion in 2007-08) and was initiated to market-oriented reforms about a decade later, when compared to other developing economies in East Asia. Some of the notable features for the Indian economy are as follows: (a) India has a growing developing market economy and is on the way to become the third largest economy of the world in PPP terms (b) The economy continues to have a relatively higher tariff structure in spite of substantial cut-down on tariff barriers in recent years. Average applied tariff rates have declined significantly from 113% in 1991, prior to Indian economic liberalization, to approximately 34% in 2007. Indian policy makers have progressively committed to reduce its tariff levels to 10-12% within a time span of about 3-5 years (*Sen et al., 2004*); (c) The Indian economy is still beset with infrastructure bottlenecks in spite of a thriving IT and skilled manpower in its service sector; (d) In spite of economic reforms, the Indian economy remains "mixed" in character, relying significantly on agricultural activities for its growth on one hand, while increasingly moving towards a knowledge-based service oriented economy on the other.

It was noted by *Dunning (1993)* that FDI opens up an important channel for cross-border intra-firm trade in value-adding activities and firms typically engage in intra-firm trade because they find it more efficient to do business within firms than externally through the market. The corporate strategy of network formation to promote the internationalisation of activities is supported by FDI that integrates production vertically and horizontally. Here *Porter's (1985)* generic value

*Lecturer Army Institute of Management, Kolkata Judges Court Road Opp. Alipore Telephone Exchange, Kolkata
**Department of Commerce, University of Calcutta College, Street Campus Kolkata 700 073

chain model helps to explain the increasing importance and changing pattern of inter- and intra-firm investment and trade relationships. It is unusual that one single firm performs all the core activities (e.g., research and development, production, marketing, delivery, and provision of after-sale services) and supporting activities (e.g., procurement of inputs, technology, human resources, and other infrastructure, like management and finance) by itself. Some of these activities can readily be performed cheaper or better by suppliers located elsewhere, which can lead to the determination of cross-border transaction flows in intermediate goods and services by multinational hierarchies (*Dunning, 1993*).

REVIEW OF LITERATURE

The impact of foreign direct investment on exports is not straightforward and varies across countries, industries and over time, depending on wide range of factors both for home and host countries. Thus, whether FDI substitutes trade (serves as alternative means of supplying foreign markets) or complements trade (facilitates exports of host country) depends critically on the motives of the foreign investor, type of industries (industry-mix) and the nature of investment undertaken (*Kojima, 1973; Dunning, 1988; Kumar, 1998; Athukorala et al., 1995*). The linkages between FDI and services trade have been progressively consolidated with the globalisation of business operations (*Hardin and Holmes, 1997, Markusen et al., 1999 and Dee, 2001*). *Ethier and Horn (1991)* noted that internationally traded services are often customized to accommodate the needs of individual purchasers while *Markusen et al. (1999)* identified special attributes of services delivered via FDI.

The initiation of reforms after liberalization has geared the economic policies of the country towards an export oriented growth strategy, with FDI inflows playing a major role (*Rajan and Sen, 2002*). Although some empirical studies have supported the view that FDI inflows in India is not of the export-oriented type (*Aggarwal (2001); Sharma (2000)*), it is important to note that none of them studied the impact of FDI inflows on services export in India, in spite of the service sector being an important engine of growth, and services trade being increasing in importance for the Indian economy in recent decades (*Rajan and Sen (2002); Sen (2002); Asher and Rajan (1995); Patibandla (2001)*). Thus, most empirical studies to date, have largely examined the impact of FDI on trade in manufacturing sector neglecting the services sector. In fact, a recent study by *Welsum (2003)* stresses that given the peculiarities of the nature of services trade, the impact of FDI on

services trade could be different as compared to its impact on trade in manufacturing goods. *Wong and Tang (2007)* empirically confirmed for Malaysia the existence of bi-directional causality between inward FDI and semiconductor exports.

Notwithstanding the wide-ranging FDI-services and extensive trade-and-services linkages, there is relatively little empirical work examining the possible relationships between FDI and services export. On the other hand, the causal relationships between FDI and commodity export have been studied and documented extensively. So, an attempt is made to study the causal relationship between FDI inflows and services export during the post liberalization period.

Data Source

The data used in this study is the foreign direct investment (FDI) inflows in India quarter wise covering the period from 1990-91 Q1 to 2007-08 Q4 (**Figure1**). Services Export (SEREXP) is also taken for the same time period and the data is extracted from Reserve Bank's *Handbook of Statistics*. However annual data of FDI inflows in the services sub sectors and services export for the time period 1991 to 2008 are also considered for the purpose of regression analysis.

METHODOLOGY

- Econometric Analysis
- Regression Analysis

Econometric Analysis

Granger-causality test in a bivariate VAR framework is used to examine causality between FDI inflows and services export for the time period 1990-91 Q1 to 2007-08 Q4.

Tests for Stationarity

To test the stationarity of the variables Augmented Dickey Fuller (ADF) [1979], Phillips-Perron (PP)[1988] and Kwiatkowski, Phillips, Schmidt and Shin [1992] tests are performed.

Tests for Cointegration

After examining the stationarity of the variables involved in the study, an attempt is made to figure out the level of cointegration between the examined variables, i.e., those tied in a long-run relationship. Cointegration Test is conducted to determine the long-run economic relationship between the variables (*Thomas, 1993*). In this study, the Error-correction Cointegration technique of *Johansen (1988)* and *Johansen and Juselius (1990)* has been applied to

identify the cointegration relationship between the variables. Johansen and Juselius' (1990) approach to the number of co-integrating vectors is applicable only if two variables are I(1). The Cointegration Test of maximum likelihood (based on the Johansen-Juselius Test) has been developed based on a VAR approach initiated by Johansen (1988). According to Johansen (1988), a p-dimensional VAR model, involving up to k-lags, can be specified as below.

$$Z_t = \alpha + \Pi_1 Z_{t-1} + \Pi_2 Z_{t-2} + \dots + \Pi_k Z_{t-k} + \varepsilon_t \quad \dots(1)$$

where Z_t is a vector of potential endogenous variables and each of the Π_i is a matrix of parameters and ε_t is the white noise term. Equation (1) can be formulated into an Error Correction Model (ECM) form as below.

$$\Delta Z_t = \alpha + \Pi_k Z_{t-k} + \sum_{i=1}^{k-1} \theta_i \Delta Z_{t-i} + \varepsilon_t \quad \dots(2)$$

where Δ is the first difference operator, and Π_k and θ_i are by matrices of unknown parameters and k is the order of the VAR translated into a lag of k in the ECM and ε_t is the white noise term. α is a vector which represents a matrix of long-run coefficients and it is of paramount interest. The long-run coefficients are defined as multiples of two vectors, α and β , and hence $\alpha\beta'$, where β is a vector of the loading matrices and denotes the speed of adjustment from disequilibrium, while α is a matrix of long-run coefficients so that the term $\alpha\beta'$ in equation (2) represents up to cointegration relationships in the Cointegration Model. Evidence of the existence of cointegration is the same as evidence of the rank (r) for the $\alpha\beta'$ matrix. Johansen and Juselius (1990) have shown that the rank of r of $\alpha\beta'$ in equation (2) is equal to the number of cointegrating vectors in the system. It has full rank, i.e., $r=k$, and it is said that there are cointegrating relationships and that all variables are I(0). Cointegrated variables share common stochastic and deterministic trends and tend to move together through time in a stationary manner even if the two variables in the study are non-stationary. There are three possible cases.

1. The rank of $\alpha\beta'$ can be zero. This takes place when all the elements in the matrix $\alpha\beta'$ are zero. This means that the sequences are unit root processes and there is no cointegration. The variables do not share common trends or move together over time. In this case, the appropriate model is a VAR in first differences involving no long-run elements.
2. The rank of $\alpha\beta'$ could be full. In this case, the system is stationary and the two variables can be modelled by VAR in levels. In the present study, if $r=k$, then all the components of $\alpha\beta'$ are I(0) rather

than I(1) or I(2) and the cointegration analysis is irrelevant.

3. Finally, the rank of $\alpha\beta'$ can be reduced [$r < k$]. In this case, even if all the variables are individually I(1), the level-based long-run component would be stationary. In this case, there are (r) cointegrating vectors. The appropriate modelling methodology here is the Vector-Error Correction Model (VECM).

Johansen and Juselius (1990) have developed two Likelihood Ratio Tests. The first test is the Likelihood Ratio Test based on the maximal Eigen value which evaluates the null hypothesis of 'r' cointegrating vector(s) against the alternative of 'r+1' cointegrating vectors. The second test is the Likelihood Ratio Test based on the Trace Test which evaluates the null hypothesis of, at most, 'r' cointegrating vector(s) against the alternative hypothesis of more than 'r' cointegrating vectors. If the two variables are I(1), but cointegrated, the Granger Causality Test will be applied in the framework of ECM in which long-run components of the variables obey equilibrium constraints while the short-run components have a flexible dynamic specification.

Tests for Granger Causality with VECM

In order to examine the causal linkages between the variables, the Granger Causality Test has been conducted. The direction of the impact of each of the variables is also determined from the analysis. In order to capture the impact of variables observed in the past time period in explaining the future performance, the optimal lag length p (which is 3 in the present study) is chosen (see Table 1) and the criteria used in selecting the VAR model and optimal lag length require the combination of information criterion (minimum of AIC or SBIC or HQIC or FPE value). The above selection criteria would guarantee that neither too short lag length is chosen to result in serially correlated errors nor too many lags are included that might induce specification bias for having inefficient parameters (Hendry and Mizon, 1993).

If the variables contain cointegrating vector, causality exists in at least one direction. According to Engle and Granger (1987), if two series, say X and Y, are integrated of order one [i.e., I(1)] and cointegrated, then there is possibility of a causal relationship in at least one direction. The direction of a causal relationship can be detected in the VECM. Engle and Granger (1987) have found that, in the presence of cointegration, there always exists a corresponding error-correction representation, captured by the error-

correction term (ECT). This means that changes in the dependent variable are a function of the level of disequilibrium in the cointegrating relationship as well as changes in other explanatory variable(s). The ECT captures the long-run adjustment of cointegration variables. As such, in addition to the direction of causality, the incorporation of ECT in the VECM allows to detect both short- and long-run causal relationships between the variables. On the other hand, if no cointegrating vector exists in the model, the standard VAR should be applied to test the causal relationship between variables. As the prerequisite of causality testing, it is necessary to check the cointegrating properties of the variables, and, to examine the causal linkages, a VECM is specified, which can be expressed as follows:

$$\Delta \ln FDI_t = \sum_{j=1}^{p-1} \beta_{1,j} \Delta \ln FDI_{t-j} + \sum_{j=1}^{p-1} \beta_{2,j} \Delta \ln SEREXP_{t-j} + \alpha_1 ECT_{t-1} + \varepsilon_{1t} \quad \dots (3)$$

$$\Delta \ln SEREXP_t = \sum_{j=1}^{p-1} \beta_{21,j} \Delta \ln SEREXP_{t-j} + \sum_{j=1}^{p-1} \beta_{22,j} \Delta \ln FDI_{t-j} + \alpha_2 ECT_{t-2} + \varepsilon_{2t} \quad \dots (4)$$

where Δ is the first difference operator and ε_{1t} and ε_{2t} are white noise. ECT is the error correction term, and p is the order of the VAR, which is translated to lag of in the ECM. $\beta_{1,j}$ and $\beta_{2,j}$ represent the speed of adjustment after the FDI inflows and Services export deviate from the long run equilibrium in period $t-1$. The coefficients of lagged value, $\beta_{1,j}$ for in equation (3) represent short run effects of Services Export on FDI inflows; and, the coefficients of lagged $\beta_{2,j}$ for in equation (4) represent short run effects of FDI inflows on Services export.

Regression Analysis

The regression equation for the first model is as follows:

$$\ln SEREXP = \alpha_1 + \beta_1 \ln FDISER + \varepsilon_1 \quad \dots (5)$$

where α_1 is the constant term, $\ln SEREXP$ represents logarithmic value of services export, $\ln FDISER$ represents logarithmic value of FDI inflows in the services sector, β_1 is the coefficient to be estimated and ε_1 is the error term.

The linear regression equation for the second model is:-

$$\ln SEREXP = \alpha_2 + \beta_1 \ln SERCON + \beta_2 \ln TRANSPORT + \beta_3 \ln OTHERS + \varepsilon_2 \quad \dots (6)$$

α_2 is the constant term, $\ln SERCON$ is the logarithmic value of FDI inflows in services sector (public administration, business and legal services, financial, banking and insurance, personal, community and other services) and consultancy services, $\ln TRANSPORT$ is the logarithmic value of FDI inflows in transport services, $\ln OTHERS$ is the logarithmic value of FDI inflows in other services

sector (telecommunication, hotel tourism and trading). $\beta_1, \beta_2, \beta_3$ are the coefficients to be estimated. ε_2 is the error term.

DATA ANALYSIS

Econometric Analysis

Time Series Properties of the Variables

Table 2 report the results of Augmented Dickey Fuller (ADF) Phillip Perron (PP) test and KPSS test of unit root by lag length chosen based on minimum values of Schwartz criterion (SC). The tests are performed on both the level and first differences of the logged variables.

According to the three tests conducted it is found that logarithmic values of FDI is stationary in the first difference form according to ADF test, Phillip Perron test and KPSS test. The variable SEREXP is stationary in the first difference form according to ADF test, Phillip Perron test and KPSS test.

Johansen Co integration Test

Johansen Cointegration Test results for the cointegration rank r have been presented in Table 3. Going by the results of the ADF, PP Test and the KPSS Test, it has been observed that the variables have the same order of integration, i.e., $I(1)$ and the Johansen Cointegration Test has been employed to find out the cointegration rank and the number of cointegrating vectors. The null hypothesis is rejected in the cases of both the Trace statistic and Max-Eigen value statistic. The null hypothesis of $r=0$ (i.e., there is no cointegration) is rejected against the alternative hypothesis of $r=1$ at 5% level of significance in case of the Max-Eigen value statistic. Similarly, going by the result of the Trace statistic, the null hypothesis of $r=0$ is rejected against the alternative hypothesis of $r=1$ at 5% level of significance. Table 3 shows that the number of statistically significant cointegration vectors is equal to one for the Trace statistic and also for the Max-Eigen value statistic. The results suggest that there is a long-run relationship among FDI inflows and Services export for the period of the study.

Analysis of VECM

Johansen's λ and α statistics (as per Table 3) reveal that the variables under study stand in a long-run relationship between them, thus justifying the use of ECM for showing short-run dynamics. Going by the definition of cointegration, the Granger Representation Theorem (Engle and Granger, 1987) states that if a set of variables is cointegrated, then there exists valid error correction representations of the data.

In Table 4 below, the cointegrating equations are given along with the equation for changes in FDI inflows (first column), changes in Services export (second column). The coefficients of Error Correction Term contain information about whether the past values affect the current values of the variable under study. A significant coefficient implies that past equilibrium errors play a role in determining the current outcomes. The information obtained from the ECM is related to the speed of adjustment of the system towards long-run equilibrium. The short-run dynamics are captured through the individual coefficients of the difference terms. The adjustment coefficient on Δ in equation (3) is negative and statistically significant at 1% level of significance indicating that, when deviating from the long-term equilibrium, error correction term has an opposite adjustment effect and the deviation degree is reduced. The significant error term also supports the existence of long-term relationship between Services export and FDI inflows. The adjustment coefficient on Δ in equation (4) is negative and statistically significant at 1% level of significance indicating that, when deviating from the long-term equilibrium, error correction term has an opposite adjustment effect and the deviation degree is reduced. The significant error term also supports the existence of long-term relationship between FDI inflows and Services export. The lagged coefficient of Δ is negative and statistically significant at the 5% level of significance, implying that higher FDI inflows has a negative impact on services export in the short run.

Causality test with VECM

Since the variables are cointegrated, the Granger causality test is conducted in the VECM framework and the result is reported in Table 5. The existence of cointegration implies that there must be Granger causality at least in one direction, although it does not indicate the direction of causality among the variables in the estimation

The null hypothesis that "LnSEREXP does not Granger cause LnFDI" is tested using change in FDI inflows (Δ LnFDI) and change in services export (Δ LnSEREXP), when both are stationary in their first difference form in Standard Granger causality regression. The null hypothesis is accepted or rejected based on "chi-squared test based on Wald criterion" to determine the joint significance of the restrictions under the null hypothesis. If the null hypothesis is rejected, one concludes that LnSEREXP Granger causes LnFDI. The lag length is justified by a minimum Final

Prediction error (FPE), Schwarz Information Criterion (SIC) and likelihood ratio test statistics. The test result suggests lag order of 3 as optimal lag. (Table 1)

The p value (0.6927) (Table 5) indicates that the coefficients of LnSEREXP are jointly zero in the equation for LnFDI. In this case the null hypothesis that services export does not Granger cause FDI inflows cannot be rejected. The null hypothesis that "LnFDI does not Granger cause LnSEREXP" is tested using the logarithmic value of both the variables, in their first difference form. The small p value (0.0678) in Table 5 indicates that the coefficients of the lags of LnFDI are not jointly zero in the equation for LnSEREXP, indicating that the evidence favours the alternative hypothesis that LnFDI Granger causes LnSEREXP. Here it is seen that there is presence of unidirectional causality from FDI inflows to services export and there is no causality running from services export to FDI inflows.

Regression Analysis

The regression results in Table 6 shows that FDI inflows in the services sector as a whole is significant at 1% level of significance in explaining services export in India during the period 1991 to 2008 (calendar year wise). The R^2 value of 0.717715 is significant in explaining measurement of goodness of fit of the regression model. Table 7 reveals that FDI inflows in the service sector (which includes public administration, business and legal services, financial, banking and insurance, personal, community and other services) along with consultancy services is significant at 1% level of significance in explaining services export. It is also seen that FDI inflows in the transport sector is significant at 5% level of significance in explaining services export.

CONCLUSION

A positive unidirectional Granger causality from FDI inflows to Services Export indicate that FDI has positively influenced the growth of services export in the Indian economy, after the liberalization period. During the post liberalization period the trade policies undertaken by the government, the changing attitude of the government towards foreign direct investment has increased export opportunities has induced foreign investors to take advantage of India's comparative advantage in the services sector. Since services export is largely driven by information and communication technology, the result also conforms to the findings of Gholami et.al (2004), which established strong causal links between FDI and ICT in many developed countries

¹Thus, while parts of production that require higher capital- and skill-intensity is likely to be undertaken by capital abundant countries, the assembling of the product, which is a labour intensive activity, is likely to be undertaken by the same firm in a labour-abundant country, viz. India.

(consider this point again). The above implies that rapid advancement in information and communication technology (ICT) in India is likely to generate significant scope for export-oriented services. There is a vast unlimited potential for expansion of services export and India needs to boost its export competitiveness and improve its prospects to become a global player in services trade. Rapid technological revolution and widespread use of the information and communication technology (ICT), international production fragmentation has emerged as a key source of export growth, wherein FDI has played a vital role in international splitting up of the production process within vertically integrated manufacturing industries. Through this process, firms have broken up the production process and moved its constituent activities abroad, producing components as well as locating assembly activities in line with the principle of comparative advantage (Athukorala and Suphachalasai, 2004; Arndt, 2003). Though this has traditionally been observed extensively in commodity trade like garments, footwear, toys, handicrafts etc., it is now being applied intensively to the service sector, in the form of Business Process Outsourcing (BPOs). The areas where BPOs are gaining importance ranges from air transport services, software, banking, to health and education services. It is in this context that causal links between FDI and Services exports merits attention in the Indian case, and provides important policy directions.

The First National Foreign Trade Policy 2004-2009 has explicitly recognized the potential for India to be a hub for export-oriented services. Several specific institutional measures have been proposed such as setting up of an exclusive Services Export Promotion Council to map opportunities for key services in key markets, and setting up of common facility centers for use of professional home based service providers in state and district level towns. There are plans to establish a Free Trade and Warehousing Zone (FTWZs) to create trade related infrastructure to facilitate the import and export of goods and services and permit FDI upto 100% in the development and establishment of these zones. The National Telecom Policy (NTP) of 1994 and 1999 contained major policy initiatives to liberalize the telecom sector to private sector participation. This included opening up the sector to competition in basic services as well as value added services, viz cellular mobile services, radio paging, very small aperture terminals (V-SAT) services, etc. This has led telecommunication technologies, services and market structure for India's telecom sector to

change rapidly (Kathuria et al., 2003). Further liberalization of services trade is necessitated in other sectors as well along with proper regulatory framework in place. Barriers for visa restrictions, economic needs tests, as well as sector specific restrictions and selective preferential market access need to be liberalized as well. These measures are likely to spur the growth of India's service exports, not only in ICT services sector, but also in areas related to education, healthcare, consultancy and R & D services, financial, transport and professional services. It would be favourable for India to attract FDI in those industries that have potential to compete internationally and benefiting from more capital inputs flowing in and additional gains from their marketing competence, product-process technology and channels of distribution. This scope is significant and as yet widely untapped in the service sector. Hence, the importance of FDI in export promotion in the services sector in India should be pursued as a long-term policy objective.

REFERENCES

- Aggarwal, A. (2001). "Liberalization, Multinational Enterprises and Export Performance: Evidence from Indian Manufacturing", Indian Council for Research on International Economic Relations (ICRIER) Working Paper No. 69, New Delhi, India, 33 p.
- Asher, M. and Rajan, R.S. (1995), India and Singapore: Forging Economic Linkages in the Post-Cold War World, Asian Survey, Vol 35, No.2, pp 896-908.
- Arndt, S.W. (2003). "Competing Successfully in a Global Economy: Lessons for Singapore", in Ramkishan Rajan (ed.) "Sustaining Competitiveness in the New Global Economy: The Case of Singapore", Edward Elgar: Aldershot, UK.
- Athukorala, P.C and Suphachalasai, S. (2004). "Post-crisis Export Performance in Thailand", ASEAN Economic Bulletin Special Focus, Volume 21, No. 1, pp.19-37.
- Athukorala, P.C. and Jayasuriya, S. and Oczkowski, E. (1995). "Multinational firms and export performance in developing countries: Some analytical issues and new empirical evidence", Journal of Development Economics, Volume 46, pp.109-122.
- Borensztein, E., De Gregorio, J., and Lee, J. W., 1998. How does foreign direct investment affect economic growth? Journal of International Economics, 45, 115-135.

² Examples in the Indian context would include ticketing services of Singapore Airlines which is outsourced from India and medical transcription and legal documentation services in the US which are also being outsourced increasingly from India.

- Balasubramanyam, V. N., Salisu, M., and Sapsford, D., 1999. Foreign direct investment as an engine of growth, *Journal of International Trade and Economic Development*, 8,27-40.
- Dickey, D.A. and Fuller, W.A. (1979), Distribution of the estimations for autoregressive time series with a unit root, *Journal of American Statistical Association*, Vol. 74, pp. 423-31.
- Dee, P (2001): "Trade in services", Australian Productivity Commission.
- De Mello, L.R. (1996): "Foreign Direct Investment, International Knowledge transfers, and Endogenous Growth: Time Series Evidence", Department of Economics, University of Kent, UK, mimeo.
- Dunning, J.H. (1988). The Eclectic Paradigm of International Production: a Restatement and Some Possible Extensions. *Journal of International Business Studies*, Vol 19, No.1, pp.1-31.
- Engle, R.F and Granger, C.W.J. (1987), Cointegration and Error Correction: Representation, Estimation and Testing, *Econometrica*, Vol. 55, No.2, pp. 251-276.
- Ethier, W. and Horn, H. (1991), 'Services in international trade', in Helpman, E. and Razin, A. (eds), *International Trade and Trade Policy*, MIT Press, Cambridge Massachusetts, pp. 223-44.
- Gholami, R., Moshiri, S. and Lee, S. (2004). ICT and productivity of the manufacturing industries in Iran. *The Electronic Journal of Information Systems in Developing Countries*, Vol.19, No.4, pp. 14.
- Hardin, A. and L. Holmes (1997), "Service Trade and Foreign Direct Investment", Australian Productivity Commission.
- Hendry, D.F. and Mizon, G.E. (1993). Evaluating Dynamic Econometric Models by Encompassing the VAR in Phillips, P.C.B. (edr.), *Models, Methods and Applications of Econometrics*, Basil Blackwell, Oxford, pp. 272-300
- Johansen, S. (1988). Statistical Analysis of Co-integrating Vectors, *Journal of Economic Dynamics and Control*, Vol. 12, pp. 231-254.
- Johansen S. (1988) "Statistical analysis of Cointegration vectors", *Journal of Economic Dynamics and Control*, Vol.12, pp.231-54.
- Johansen, S. and Juselius, K. (1990). Maximum Likelihood Estimation and Inference on Co-integration with Application to the Demand for Money, *Oxford Bulletin of Economics and Statistics*, Vol. 52, pp.169-210.
- Kwiatkowski, D., Phillips, P.C.B., Schmidt, P. and Shin, Y. (1992). Testing the Null Hypothesis of Stationarity against the Alternative of a Unit Root, *Journal of Econometrics*, Vol. 54, pp.159-178.
- Kathuria, Rajat., Singh, Harsha Vardhana., and Soni, Anita. (2003). Telecommunications Policy in India. In: Aaditya Mattoo and Rebert M. Stern. (Eds). *India and the WTO*. New Delhi: Oxford University Press: pp.81-116.
- Kojima, K., (1973). A Macroeconomic Approach to Foreign Direct Investment, *Hitotsubashi Journal of Economics*. Vol. 14, pp.1-21.
- Kumar, Nagesh (1998): "Multinational Enterprises, Regional Economic Integration, and Export-Platform Production in the Host Countries: An empirical Analysis for the US and Japanese Corporations", *Weltwirtschaftliches Archiv*, Vol. 134, No. 3, pp. 450-483.
- MacKinnon, J.G. (1991). Critical Values for Co-integration Tests in Engle, R.F. and Granger, C.W.J. (eds.), *Long Run Economic Relationships: Readings in Co-integration*, Oxford University Press, Oxford, pp.267-276
- MacKinnon, J.G., Haug, A. A. and Michelis, L. (1999). Numerical Distribution Functions of Likelihood Ratio Tests for Cointegration, *Journal of Applied Econometrics*, Vol. 14, No.5, pp.563-77.
- Markusen, J., Rutherford, T.F. and Tarr, D. (1999), *Foreign Direct Investment in Services and the Domestic Market for Expertise*, Conference Proceedings, Second Annual Conference on Global Economic Analysis, Denmark, June 20-22.

Appendix

Table 1: VAR Lag Order Selection Criteria (FDI and Services Export) [D.LnFDI and D.LnSEREXP]

VAR Lag Order Selection Criteria						
Lag	LogL	LR	FPE	AIC	SBIC	HQIC
0	-4.201030	NA	0.004114	0.182383	0.247663	0.208249
1	2.134675	12.11238	0.003841	0.113686	0.309525	0.191283
2	15.11978	24.06064	0.002950	-0.150582	0.175816*	-0.021253
3	21.10371	10.73587*	0.002786*	-0.208933*	0.248025	-0.027872*
<p>* indicates lag order selected by the criterion</p> <p>LR: sequential modified LR test statistic (each test at 5% level)</p> <p>FPE: Final prediction error</p> <p>AIC: Akaike information criterion</p> <p>SBIC: Schwarz information criterion</p> <p>HQIC: Hannan-Quinn information criterion</p> <p>D. indicates first difference of the concerned variable</p>						

Table 2: Test of Unit Root Test Hypothesis (1990-91:Q1 to 2007-08:Q4) (without trend)

Series		ADF Statistic		PP Test		KPSS	
		Test Statistic	Lags	Test Statistic	Lags	Test Statistic	Lags
LnFDI	Level	-1.156152	1	-1.294968	1	3.08458***	1
	First Difference	-	0	-	0	0.0863623	0
LnSEREXP	Level	-0.151290	3	0.446907	3	1.87883***	3
	First Difference	-	2	-	2	0.0346953	2

(a) The critical values are those of McKinnon (1991).

1 % ADF-critical values = -3.527045, 5% ADF-Critical values = -2.903566 10% ADF-Critical values = -2.589227 in case of LnFDI and first difference of LnFDI (logarithmic value of FDI inflows)

1 % ADF-critical values = -3.530030, 5% ADF-Critical values = -2.904848 10% ADF-Critical values = -2.589907 in case of LnSEREXP and first difference of LnSEREXP (logarithmic value of Services export)

1 % PP-critical values = -3.525618, 5% PP -Critical values = -2.902953 10% PP Critical values = -2.588902 in case of LnSEREXP (logarithmic value of Services

export) and LnFDI(logarithmic value of FDI inflows)

1 % PP-critical values = -3.527045, 5% PP -Critical values = -2.903566 10% PP Critical values = -2.589227 in case of first difference of LnFDI and first difference of LnSEREXP

1 % KPSS- critical values = 0.739,5% KPSS-Critical values = 0.463, 10% KPSS-Critical values = 0.347 in case of LnSEREXP, LnFDI, first difference of LnSEREXP, first difference of LnFDI

(b)***, ** and * represents the rejection of unit root hypothesis at 1%, 5% and 10% levels of significance.

Table 3: Johansen and Juselius Cointegrating Test Results No deterministic trend (restricted constant)

Null Hypothesis	Alternative Hypothesis	Test statistic	0.05 critical value	Probability value*
Trace statistic				
H ₀	H ₁			
$r = 0$	$r \geq 1$	48.14486**	20.26184	0.0000
$r \leq 1$	$r \geq 2$	5.515866	9.164546	0.2316
Maximum Eigen value statistic				
H ₀	H ₁			
$r = 0$	$r = 1$	42.62900**	15.89210	0.0000
$r \leq 1$	$r = 2$	5.515866	9.164546	0.2316

a) is the number of co integrating vectors.

b) Trace test indicates 1 co integrating equations at 0.05 level.

c) Max-eigenvalue test indicates 1 co integrating equations at 0.05 level.

d) **denotes rejection of the hypothesis at the 0.05 level.

e) *Mackinnon -Haug- Michelis (1999) p-values.

Table 4: Test Results of Vector Error Correction Model

Vector Error Correction Estimates		
Included observations: 68 after adjustments		
Standard errors in () & t-statistics in []		
Cointegrating Eq:	CointEq1	
LnFDI(-1)	1.000000	
LnSEREXP(-1)	-1.097965	
	(0.32953)	
	[-3.33193]	
C	-1.185664	
	(3.19413)	
	[-0.37120]	
Error Correction:	D(LnFDI)	D(LnSEREXP)
CointEq1	-0.039936	-0.042181
	(0.01653)	(0.00616)
	[-2.41599]***	[-6.85140]***
D(LnFDI(-1))	-0.176058	-0.055419
	(0.12373)	(0.04608)
	[-1.42292]	[-1.20259]
D(LnFDI(-2))	-0.002755	-0.109815
	(0.12598)	(0.04692)
	[-0.02187]	[-2.34045]**
D(LnFDI(-3))	-0.246743	-0.061440
	(0.12902)	(0.04805)
	[-1.91246]	[-1.27859]

*** and **denote statistical significance at the 1% and 5% level of significance respectively.

Table 5: VEC Granger Causality/Block Exogeneity Wald Tests. Dependent variable: D(LnFDI)

Excluded	Chi-sq	df	Prob.
D(LnSEREXP)	1.454802	3	0.6927
All	1.454802	3	0.6927

Dependent variable: D(LnSEREXP)

	Constant	LnFDISER	R ²	\bar{R}^2
LnSEREXP	6.574117*** (0.724013) [0.080106]	0.451778*** (0.070833) [6.378107]	0.717715	0.700072

D(LnFDI) D(LnSEREXP)

* Rejection of the null hypothesis at 10% level of significance.

Table 6: OLS estimates using for the time period 1991-2008 (18 observations)

Excluded	Chi-sq	df	Prob.
D(LnFDI)	7.131684	3	.0678*
All	7.131684	3	.0678*

*** indicates significant at 1% level. Standard errors in () & t-statistics in [].

Table 7: OLS estimates using for the time period 1991-2008 (18 observations)

	Constant	LnSERCON	LnTRANS PORT	LnOTHERS	R ²	\bar{R}^2	F-statistic
LnSER EXP	4.296386*** (1.183160) [3.631280]	0.467625*** (0.136645) [3.422182]	0.532884** (0.208233) [2.559074]	-0.251619 (0.157274) [-1.599875]	0.830942	0.791928	21.29885 (p-value = 0.000027)

*** indicates significant at 1% level. Standard errors in () & t-statistics in [].

HOW USEFUL IS TECHNICAL ANALYSIS IN PREDICTING FUTURE STOCK TRENDS

Gagan Deep Sharma*
Mandeep Mahendru**
Sanjeet Singh***

Table of Contents

- Abstract
- Introduction of the Study
- Objectives of the Study
- Review of Literature
- Research Methodology
- Analysis & Findings
- Conclusion
- References

ABSTRACT

The study builds on the literature already available on financial data of the companies in India. The study is conducted to test out the usefulness of the technical analysis in predicting the future market trends therefore I have taken the 15 companies as recommended by the analysts in the smart investor of the business standard newspaper for the month of January. I have taken their current price on the recommended day and the target price given by the analysts on the recommended day and then further taken the highest and the lowest months in the following two months that is January and February and see the recommendations given by the analysts to the investors to buy or to sell the securities is actually comes out to be true or not. I have used mean., regression and t- tailed test to prove the results.

Keywords:- Technical analysis, Future market, T-test, Securities.

INTRODUCTION OF THE STUDY

Technical analysis is the practice of studying the stock market's past in an attempt to determine its future.

Technical Analysis is the forecasting of future financial price movements based on an examination of past price movements. Like weather forecasting, technical analysis does not result in absolute predictions about the future. Instead, technical analysis can help investors anticipate what is "likely" to happen to prices over time. Technical analysis uses a wide

variety of charts that show price over time.

Technical analysis is a security analysis discipline for forecasting the future direction of prices through the study of past market data, primarily price and volume.

Technical Analysis as a tool of investment for the average investor thrived in the late

Nineteenth century when *Charles Dow*, then editor of the Wall Street Journal, proposed the Dow theory. He recognized that the movement is caused by the action/ reaction of the people dealing in stocks rather than the news in itself.

Walter Deemer was one of the technical analysts of that time. He started at Merrill Lynch in New York as a member of Bob Farrell's department. Then when the legendary Gerry Tsai moved from Fidelity to found the Manhattan Fund in 1966, Deemer joined him. Tsai used to consult him before every major block trade, at the start of a time when large volume institutional trading became the norm and the meal ticket for brokers. Deemer, could recreate market history on his charts and cite statistics. He maintained contact with the group of other pros around then, who shared their insights with each other in a collegial confidence worthy of the priesthood.

Technical analysis is applicable to stocks, indices, commodities, futures or any tradable instrument where the price is influenced by the forces of supply and demand. Price refers to any combination of the open, high, low, or close for a given security over a specific time frame. The time frame can be based on intraday (1-minute, 5-minutes, 10-minutes, 15-minutes, 30-minutes or hourly), daily, weekly or monthly price data and last a few hours or many years. In addition, some technical analysts include volume or open interest figures with their study of price action.

THE BASIS OF TECHNICAL ANALYSIS

At the turn of the century, the Dow Theory laid the foundations for what was later to become modern

*Gagan Deep Sharma, Department of Management Studies, BBSB Engineering College, Fatehgarh Sahib

**Mandeep Mahendru Department of Management Studies, Gian Jyoti Institute of Management, Mohali

***Sanjeet Singh Department of Management Studies, BBSB Engineering College, Fatehgarh Sahib

technical analysis. Dow Theory was not presented as one complete amalgamation, but rather pieced together from the writings of Charles Dow over several years. Of the many theorems put forth by Dow, three stand out:

- Price Discounts Everything
- Price Movements Are Not Totally Random
- What Is More Important than Why

Price Discounts Everything

This theorem is similar to the strong and semi-strong forms of market efficiency. Technical analysts believe that the current price fully reflects all information. Because all information is already reflected in the price, it represents the fair value, and should form the basis for analysis. After all, the market price reflects the sum knowledge of all participants, including traders, investors, portfolio managers, buy-side analysts, sell-side analysts, market strategist, technical analysts, fundamental analysts and many others. It would be folly to disagree with the price set by such an impressive array of people with impeccable credentials. Technical analysis utilizes the information captured by the price to interpret what the market is saying with the purpose of forming a view on the future.

Price Movements Are Not Totally Random

Most technicians agree that prices trend. However, most technicians also acknowledge that there are periods when prices do not trend. If prices were always random, it would be extremely difficult to make money using technical analysis.

A technician believes that it is possible to identify a trend, invest or trade based on the trend and make money as the trend unfolds. Because technical analysis can be applied to many different time frames, it is possible to spot both short-term and long-term trends. The IBM chart illustrates Schwinger's view on the nature of the trend. The broad trend is up, but it is also interspersed with trading ranges. In between the trading ranges are smaller uptrends within the larger uptrend. The uptrend is renewed when the stock breaks above the trading range. A downtrend begins when the stock breaks below the low of the previous trading range

What Is More Important than Why

"A technical analyst knows the price of everything, but the value of nothing". Technicians, as technical analysts are called, are only concerned with two things:

1. What is the current price?
2. What is the history of the price movement?

The price is the end result of the battle between the forces of supply and demand for the company's stock. The objective of analysis is to forecast the direction of the future price. By focusing on price and only price, technical analysis represents a direct approach. Fundamentalists are concerned with why the price is what it is. For technicians, the why portion of the equation is too broad and many times the fundamental reasons given are highly suspect. Technicians believe it is best to concentrate on what and never mind why. Why did the price go up? It is simple, more buyers (demand) than sellers (supply). After all, the value of any asset is only what someone is willing to pay for it. Who needs to know why?

Technical Analysis is done by identifying the trend from past movements and then using it as a tool to predict future price movements of the stock. It can be done by using any of the following methods:

a) Moving Averages—This method is used to predict the trend and specify various support and resistance levels in the short and long term period. Most commonly used moving averages are 30 DMAs and 200 DMAs. Where DMA means Days Moving Average.

b) Charts & Patterns—Some analysts' uses charts and patterns to decide on the trend and then judge the future movement. The tool used by such analyst is converting the chart in one of the many form of many shapes commonly formed by stocks. Some of such patterns are:

Reversal Patterns: - Continuation Patterns: -

1. Bump and Run 1.Cup with Handle
2. Double Top 2. Flag Pennant
3. Double Top 3. Symmetric Triangle
4. Double Bottom 4.Ascending Triangle
5. Head And Shoulders Top 5. Descending Triangle
6. Head And Shoulders Bottom 6. Price Channel
7. Falling Wedge 7. Rectangle
8. Rising Wedge 8. Measured {Bear} Move
9. Rounding Bottom
10. Triple Top
11. Triple Bottom

Who uses Technical Analysis?

Investors for their short-term trading decisions use Technical Analysis. This short-term may be fur-

ther divided in day trading, short-term investment and for hedging purposes. The role played by Technical Analysis in each case is as follows:

1. Day Traders: A day trader is one who takes and squares off his position both on the same day. Mostly a day trader counts on turnover rather than margin. A day trader will interpret the market movement in the manner stated below. Suppose Mr. X is a day trader who deals in S&P CNX Nifty. The movement of Nifty

during a particular day is stated below, if Mr. X follows the recommendations made by Technical Analysis he should sell the Nifty at 1904-1908 levels and again at 1890 level.

It can be clearly seen that buying is coming at the level of 1870-1875; it is better He Squares off and can even become a net buyer at this range.

2. Short term investors: These people form the biggest clientele base of both the brokers and the Technical Analyst. To explain the working let's take the price movement curve of Infosys Technologies on NSE for the period 1st January 2003 to 9th April 2003. On closely analyzing the chart you will notice that a sustained buying is coming at the level of around Rs.4000. Another aspect, which should be noted, is the declining trend in terms of short term 'High' created by the stock. We can clearly deduce that each short-term rally is creating a lower high over the given term. In such a situation it is recommended by analyst to buy at the resistance level but sell it off immediately if it breaks the level by a margin of 2-3%.

3. Hedgers: These are generally big investors, who have lot of money at stake and hence they look to have some hedging of their risk. The strategy followed by this section of investors is that they compare the stock in consideration with the index and on the basis of the result of this comparison they take their position in the stock. This can be explained by comparing the movement of nifty on the graph with Infosys movement as we have done in the figure given below.

If we look at both the charts of nifty movement with Infosys movement we find that although both have fallen over the period but Infosys has witnessed some rallies and hence we can clearly say that a hedger will benefit by using technical Analysis and getting out at the periods when Infosys has given an upward rally.

OBJECTIVES OF THE STUDY

- To study about the usefulness of the technical analysis.
- To study about the tools and techniques of the technical analysis.

- To check the feasibility by using the method on the data of various companies.

REVIEW OF LITERATURE

Volatility is one of the defining characteristics of foreign exchange markets in the era of floating exchange rates. In an entertaining book about the inner workings of the foreign exchange markets, *Roberts (1995)* observes that foreign exchange markets are in an almost continuous state of flux. Large percentage changes in both directions can be clearly seen. It is also obvious that exchange rates change every day. If an exchange rate is unchanged from one day to the next, it seems more likely to be due to coincidence than anything else. A result of this is that players in foreign exchange markets are required to make frequent predictions of future exchange rate movements.

In general, technical analysis is defined as being "the use of past price behavior to guide trading decisions in asset markets." (*Neely, 1997*). In the context of foreign exchange markets, this translates to the usage of past exchange rates as a guide for taking positions in currencies. Although technical analysis is not new, it has traditionally been regarded with skepticism in the economics profession, due in part to belief in the efficient markets hypothesis (Taylor & Allen, 1992). However it has recently become the focus of serious economic research. The intent of this essay is to bring together some of this recent research by presenting a summary of the empirical evidence regarding the usage and profitability of technical analysis in foreign exchange markets. To pre-empt, the usage of technical analysis is found to be widespread and so the potential effects and significance this are summarized and discussed.

RESEARCH METHODOLOGY

This research is based on secondary data. As we want to study the usefulness of the technical analysis in predicting the future market trends therefore I have taken the 15 companies as recommended by the analysts in the smart investor of the business standard newspaper for the month of January. The 15 companies are HSIL, Transportation corporation of India, SAIL, Bharti Airtel, ONGC, BHEL, ICICI bank, Jindal steel and power, Kewal kiran clothing, PUNJ Lloyd, Exide industries, Usha martin, jain irrigation Systems, Sesa Goa, India bulls real estate. I have taken their current price on the recommended day and the target price given by the analysts and then have taken their highest and lowest price from the months of February and march. Then I have taken the current

price of all the industries on 28/03/10. I have taken the current rates of the companies from www.nseindian.com and www.moneycontrol.com as all the back data is ready available on the site. I have used mean, regression and t-tailed test to prove the results.

Following tools are used for Analysis of data:-

The *mean* is a particularly informative measure of the "central tendency" of the variable if it is reported along with its confidence intervals. $\text{Mean} = (\sum x_i)/n$ Usually we are interested in statistics (such as the mean) from our sample only to the extent to which they can infer information about the population. The confidence intervals for the mean give us a range of values around the mean where we expect the "true" (population) mean is located (with a given level of certainty).

Linear Regression estimates the coefficients of the linear equation, involving one or more independent variables, that best predict the value of the dependent variable. It is used to model the value of a dependent scale variable based on its linear relationship to one or more predictors. The linear regression model assumes that there is a linear, or "straight line," relationship between the dependent variable and each predictor. This relationship is described in the following formula.

$$y_i = b_0 + b_1x_{i1} + \dots + b_px_{ip} + e_i$$

where -

- y_i is the value of the i th case of the dependent scale variable
- p is the number of predictors
- b_j is the value of the j th coefficient, $j=0, \dots, p$
- x_{ij} is the value of the i th case of the j th predictor
- e_i is the error in the observed value for the i th case

The model is linear because increasing the value of the j th predictor by 1 unit increases the value of the dependent by b_j units. Note that b_0 is the intercept, the model-predicted value of the dependent variable when the value of every predictor is equal to 0.

For the purpose of testing hypotheses about the values of model parameters, the linear regression model also assumes the following:

- The error term has a normal distribution with a mean of 0.
- The variance of the error term is constant across cases and independent of the variables in the model. An error term with non-constant variance is said to be heteroscedastic.
- The value of the error term for a given case is independent of the values of the variables in the

model and of the values of the error term for other cases.

t-test:

The One-Sample T Test procedure tests whether the mean of a single variable differs from a specified constant. The One-Sample T Test procedure:

- Tests the difference between a sample mean and a known or hypothesized value
- Allows you to specify the level of confidence for the difference
- Produces a table of descriptive statistics for each test variable

ANALYSIS AND FINDINGS

I have taken the data of 15 companies from the analysts' corner of the smart investor of the business standard newspaper from the January month. The 15 companies are HSIL, Transportation corporation of India, SAIL, Bharti Airtel, ONGC, BHEL, ICICI bank, Jindal steel and power, Kewal kiran clothing, PUNJ Lloyd, Exide industries, Usha martin, jain irrigation Systems, Sesa Goa, India bulls real estate. I have taken their current price on the recommended day and the target price given by the analysts and then have taken their highest and lowest price from the months of February and march. Then I have taken the current price of all the industries on 28/03/10. The data is given in the table 1 below (Appendix).

Table 1 About Here

In the table 2 below I have taken the companies for whom the analysts have given the buy recommendation. I have calculated the mean of the current price on the recommended day and the mean of the target price given by the analysts and also the mean of the highest price during the months of February and March and compared. I have analyzed that the mean of the highest price is greater than the mean of the current price on the recommended day. That is the recommendation given by the analysts to buy near the recommended date is actually beneficial as the price rise in future of the following companies in actual.

Table 2 About Here

In the table 3 below I have taken the companies for whom the analysts have given the sell

Table 3 About Here

Regression Analysis

BUY

Table 4 About Here**Table 5 About Here**

By applying regression on the table 4&5, I have found that out of 5461035.217 factors, 5392463.687 factors are in favor and 68571 are not in favor. That is we can say that buy recommendations given by the analysts in the smart investor of business standard newspaper is mostly right and investors can rely on the information given by them i.e. can invest their money and can earn profits.

Table 6 About Here

As $Y = a + bX$

Where Y = highest price of the companies for which buy recommendation is given.

a = constant = -25.480

b = beta = 0.994

X = target price of the companies for which buy recommendation is given by the analysts in table 6

SELL

Table 7 About Here**Table 8 About Here**

By applying regression I have found that out of 32289.222 factors, 28081.195 factors are in favor and 4208.026 are not in favor. That is we can say that sell recommendations given by the analysts in the smart investor of business standard newspaper is mostly right and investors can rely on the information given by them i.e. can invest their money and can earn profits.

Table 9 About Here

As $Y = a + bX$

Where Y = highest price of the companies for which sell recommendation is given.

a = constant = 40.630

b = beta = 0.933, X = target price of the companies for which sell recommendation is given by the analysts given in table 8

T-Test

We also applied the t-tailed test on the companies for which the analysts have given the buy recommendations and find that the significance level is less than 0.025 i.e. I can generalize the results.

SELL

Table 10 About Here**Table 11 About Here**

Above Table shows that the buy recommendations given by the analysts are true and we can rely on the information given in the analyst's corner in the smart investor of the business standard but the sell recommendations given by the analysts found to be wrong. So we can't rely on the information given by the analysts in the smart investor of the business standard.

recommendation. I have calculated the mean of the current price on the recommended day and the mean of the target price given by the analysts and also the mean of the highest price during the months of February and March and compared. I have analyzed that the mean of the highest price is greater than the mean of the current price on the recommended day. That is the recommendation given by the analysts to sell near the recommended date is actually wrong as the price rises in future of the following companies in actual. That is the investors who followed the advice of the analysts may have beard the lost.

CONCLUSION

In general, we can conclude from the results that the technical indicators can play a useful role in the timing of stock market entry and exits. According to the study I have done the buy recommendations are true but not the sell recommendations given by the analysts, but I can't generalize the results as I have taken the data of only 15 companies and analyzed it for 2 months. The significance level after applying t-test comes out to be 0.009 i.e. less than 0.025 for the buy recommendations but more than 0.025 i.e. 0.055 in case of sell recommendations. So unusual profit can be achieved by using the past security prices. But security markets are efficient to make this impossible as many researchers have found in their studies that most of the markets of the developed world is weak form efficient. So if the past prices are combined with the valuable information available then it will indeed be more helpful in achieving unusual profit. So it is not the past price information that creates the opportunity but it only serve to efficiently exploit the market.

REFERENCES

Ball, R., 1978, *Filter Rules: Interpretation of Market Efficiency, Experimental Problem and Australian Experience, Accounting Education, November, 1-7.*

Conrad, J. and G. Kaul, 1988, *Time-Variation in Expected Returns, Journal of Business, 61, 409-425.*

- DeBondt, F.M. Werner and R.H. Thaler, 1985, *Does the Stock Market overreact*, *Journal of Finance*, 40, 793-805.
- DeBondt, F.M. Werner and R.H. Thaler, 1987, *Further Evidence on Investor Overreaction and Market Seasonality*, *Journal of Finance*, 42, 557-581.
- Fama, E.F. and K. French, 1988, *Permanent and Temporary Components of Stock Prices*, *Journal of Political Economy*, 96, 246-273.
- Frankel, J. and K. Froot, 1990b, *Chartists, Fundamentalists and the Demand for Dollars*, in *Private Behaviour and Government Policy in Interdependent Economies*, A.S. Courakis and M.P. Taylor (eds), Oxford University Press.
- Frankel, J. and K. Froot, 1990a, *The Rationality of the Foreign Exchange Rate: Chartists, Fundamentalists, and Trading in the Foreign Exchange Rate*, *American Economic Review*, 80, May, 181-85.
- Froot, K.A., D.S. Scharfstein and J.C. Stein, 1992. *Heard on the street : information inefficiencies in a market with short-term speculators*. *Journal of Finance* 47:1461-1484.
- Jensen, M.C. and G.A. Benington, 1970, *Random Walks and Technical Theories: Some Additional Evidence*, *Journal of Finance*, May, 469-482.
- Levich, R. M. & Thomas, L. R. (1993). *The significance of technical trading-rule profits in the foreign exchange market: A bootstrap approach*. *Journal of International Money and Finance*, 12, 451 – 474.
- Malkiel, Burton G. (2003), *Passive Investment Strategies and Efficient Markets*, *European Financial Management*, 9:1, 1-10.
- Neely, C. J. (1997). *Technical analysis in the foreign exchange market: A layman's guide*. *Federal Reserve Bank of St. Louis Review*, Sept./Oct. p. 23 – 38.
- Osler, C. L. & Chang, P. H. K. (1995). *Head and shoulders: Not just a flaky pattern*. Federal Reserve Bank of New York Staff Reports, Number 4, August 1995.
- Oberlechner, Thomas (2001), *Importance of Technical and Fundamental Analysis in the European Foreign Exchange Market*, *International Journal of Finance and Economics*, 6:1, 81-93.
- Roberts, J. (1995). *\$1000 Billion A Day: Inside the Foreign Exchange Markets*. Harper Collins, London.
- Sharpe, W.F., 1975, *Likely Gains From Market Timing*, *Financial Analysts Journal*, March-April, 60-69.
- Shiller, R.J., 1984, *Stock Prices and Social Dynamics*, *Brookings Papers on Economic Activity*, 2, Brookings Institution, 71-87.
- Shiller, R.J., 1987, *Investor Behaviour in the October 1987 Stock Market Crash: Survey Evidence*, NBER Working Paper, No. 2446. Reprinted in *Market Volatility*, MIT Press.
- Sy W., 1990, *Market Timing: Is It a Folly?* *Journal of Portfolio Management*, Summer, 11-16.
- Taylor, M. P. & Allen, H. (1990). *Charts, noise and fundamentals in the London foreign exchange market*. *The Economic Journal*, 100 (Conference 1990), 49 – 59.
- Taylor, M. P. & Allen, H. (1992). *The use of technical analysis in the foreign exchangemarket*. *Journal of International Money and Finance*, 11, 304 – 314.

APPENDIX

TABLE 1

Company	Current price on recommended day (Rs)	Target price (Rs)	Highest price (Rs)	Lowest price (Rs)	Current price on 28/03/10 (Rs)
HSIL	72.1	74	91.8	70.6	75.45
TRANSPORT CORPORATION OF INDIA	89.75	100	137.3	76.9	101.6
SAIL	214.35	156	267	197.5	244.05
BHARTI AIRTEL	306.5	400	321	269.35	310.15
ONGC	1115	1377	1246.75	1036.75	1079.9
BHEL	2372.2	2400	2472.5	2236.4	2361.65
ICICI BANK	840	940	969.5	775	947.5
JINDAL STEEL & POWER	674.8	943	736.5	600	717.3
KEWAL KIRAN CLOTHING	270.5	300	310	223	246.2
PUNJ LLOYD	219.4	197	226.4	170	185.3
EXIDE INDUSTRIES	117.4	151	128.15	101.6	116.55
USHA MARTIN	90	118	101.7	70	96.55
JAIN IRRIGATION SYSTEMS	839	986	1003	705.25	940.45
SESA GOA	410.95	344	463.95	332.15	455.4
INDIABULLS REAL ESTATE	220.2	259	236.65	141.7	153.05

TABLE 2

Company	Current price on recommended day	Target price	Highest price	Current price on 28/03/10
HSIL	72.1	74	91.8	75.45
TRANSPORT CORPORATION OF INDIA	89.75	100	137.3	101.6
BHARTI AIRTEL	306.5	400	321	310.15
ONGC	1115	1377	1246.75	1079.9
BHEL	2372.2	2400	2472.5	2361.65
ICICI BANK	840	940	969.5	947.5
JINDAL STEEL & POWER	674.8	943	736.5	717.3
KEWAL KIRAN CLOTHING	270.5	300	310	246.2
EXIDE INDUSTRIES	117.4	151	128.15	116.55
USHA MARTIN	90	118	101.7	96.55
JAIN IRRIGATION SYSTEMS	839	986	1003	940.45
INDIABULLS REAL ESTATE	220.2	259	236.65	153.05
MEAN	583.954	670.7	646.4	595.1

TABLE 3

Company	Current Price on recommended day	Target price	Highest price	Curent price on 28/03/10
SAIL	214.35	156	267	244.05
ICICI BANK	840	940	969.5	947.5
PUNJ LLOYD	219.4	197	226.4	185.3
SESA GOA	410.95	344	463.95	455.4
MEAN	281.6	32.33	319.12	294.92

TABLE 4

MODEL SUMMARY				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.994 ^a	.987	.986	82.8079284

Predictors: (Constant), Target

TABLE 5

ANOVA						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	5392463.687	1	5392463.687	786.400	.000 ^a
	Residual	68571.530	10	6857.153		
	Total	5461035.217	11			

Predictors: (Constant), Target
Dependent Variable: Highest

TABLE 6

COEFFICIENTS						
Model		Unstandardised Coefficients		Standardised Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-25.480	33.845		-.753	.469
	Target	1.002	.036	.994	28.043	.000

Dependent Variable: Highest

TABLE 7

MODEL SUMMARY				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.933 ^a	.870	.739	64.86930

Predictors: (Constant), Target

TABLE 8

ANOVA						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	28081.195	1	28081.195	6.673	.235 ^a
	Residual	4208.026	1	4208.026		
	Total	32289.222	2			

Predictors: (Constant), Target
Dependent Variable: Highest

TABLE 9

COEFFICIENTS						
Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	40.630	114.125		.356	.782
	Target	1.199	.464	.933	2.583	.235

Dependent Variable: Highest

TABLE 10

ONE-SAMPLE STATISTICS				
	N	Mean	Std. Deviation	Std. Error Mean
Target	3	232.33	98.855	57.074
Highest	3	319.1167	127.06145	73.35896

TABLE 11

ONE SAMPLE TEST						
Test Value = 0						
					95% Confidence Interval of the Difference	
	t	df	Sig. (2-tailed)	Mean Difference	Lower	Upper
Target	4.071	2	.055	232.333	-13.24	477.90
Highest	4.350	2	.049	319.11667	3.4785	634.7548

IS CELEBRITY ENDORSEMENT A MIDAS TOUCH OR A LANDMINE

Dr. Bhavana Sindhu*

Table of Contents

- Abstract
- Introduction
- Literature Review
- Objectives of the Study
- Research Methodology
- Findings
- Limitations of the Study
- Suggestion & Conclusion
- References

ABSTRACT

Use of the current heartthrob celebrity is always considered a big shot in the armor of big brands to impress the masses. Huge gaps in between the incurred cost and the resultant revenues give impetus to the trend. But, many a times there are missed shots also. Instead of cooling the heels after a missed shot, at the initial stages the companies need to pay attention to the factors, which might have been responsible for the same. This empirical study extends another dimension to the celebrity endorsement strategy. An attempt has been made to find out, whether the celebrity endorsement is always capable to extend a 'Midas touch' to the sale of the product endorsed. An interesting finding, i.e., male celebrities are more effective as an endorser than their female counterparts, is put forth through the chi square statistics. The finding is just opposite to the common notion and needs further investigation.

Key words : Celebrity endorsement, Midas, Landmine

INTRODUCTION

Consumers, with modest means, get tempted to have a brush with the lifestyles of celebrities after viewing any advertisement endorsed by a heartthrob celebrity. Fascinated by the celebrity appeal, more money is coughed up by the consumers to have a branded product. Taking the cue, companies also set priority i.e., to tap only the creamy layer of the society or have an urge to reach the masses also. Approach to a larger marketing base is bound to results in

maximization of profits and better positioning in the market. It needs no stress, that any advertisement endorsed by a celebrity gains higher visibility in the market. But, celebrity endorsement cannot be taken as a panacea for all the ailments. The reason being, the product may or may not match with the hype created by the advertisement. In the event of a mismatch with the expectation of consumer the 'Midas Touch' earlier created by the celebrity turns into a 'landmine'. The study is focused to help the big companies and Brands in making an effective marketing strategy by using a celebrity at befitting place.

LITERATURE REVIEW

Diversified attributes have been highlighted by the researchers while analyzing the reasons of success/failure of any advertisement endorsed by a celebrity. Recognition in the general public was considered the major reason behind the choice of any celebrity by any reputed company to launch any product. (McCracken, 1989; Ohania, 1990). Contradictory views have been given regarding 'who should be considered a celebrity'. According to Friedman, Friedman, (1979) any individual, who is known to public for any prominent field other than product, is a celebrity. But, McCracken (1989) expressed the view that the celebrity is an individual who enjoys public recognition. Celebrity endorsement helps in making a product visible or any new brand a visible brand by affecting consumer's pre purchase attitude (Dean, 1999). There was almost a consensus on the point that approximately one fifth of the advertisements use celebrities to endorse their product to increase the market share (Till and Busler, 1998; Pringle, 2004; Ohanian, 1991). 'Message Recall' capability of any advertisement was the focus of many of the studies (Sadhu Ramakrishna, 2005; O'Mahony and Meenaghan; 1997; Ohanian, 1991). But, the advertisements which contain good humor bears more recall value. (Sadhu Ramakrishna, 2005) Credibility of the endorser does not lag behind in marking an impression on the viewers and is very effective in pushing up the sales (Rajeshwari 2010; Hoeke and Stuart; 1989).

*Faculty IBS, ICAI University, Dehradun, Uttarakhand

Matching up of the product with the attributes of the product shown in the advertisement is also very important to ensure credibility. In the study conducted by Hsu and McDonald (2002), the match up hypothesis suggests that the effectiveness of celebrity endorsement depends on the existence of a complete association between the celebrity and endorsed brand. Viewers try to correlate the product with the expertise and trustworthiness of the endorser. Knowledge and skills of the endorser were taken as endorser's expertise by Ohanian (1991). Creativity of the idea in the advertisement has also been considered to have a lasting impact on the viewers (Sadhu Ramakrishna, 2005). Research paper by Roozen (2008) extracted interesting conclusions that the female celebrities are considered to have the highest expertise for beauty products. Female celebrity endorsing any electronic product or product related with kids was not received positively by the viewers and was least effective. It may be an existing or a new brand, it becomes inevitable for the producers to choose any media to make their product visible in the market. Now-a-days, television comes as a handy and the most effective medium, within the reach of most of the households. Producers of products, having the financial capability to hire a celebrity, try to make the best use of this very effective tool. (Rajeshwari et al. (2010); Tripp, Jensen and Carlson (1994); Friedman and Friedman (1979)). If the advertisement with a celebrity clicks among the masses then the other producer of the horizontal horizon also try to follow the same tactics. Brands, which hire any celebrity to endorse their product, have to cough up hefty sums of money. Even then, increasing trend in the celebrity endorsement has been observed. It negatively affects the recall value of any brand. This needs no stress that celebrities also are human beings and are vulnerable to any mistake. Any such mistake proves deadly not only to the endorser but to the endorsed brand in the short run. (Till and Shimp, 1998). This also happens sometimes that the celebrity steals the entire limelight in the advertisement and the brand goes to the oblivion. At a time, when big brands having huge budgets are roping in any celebrity to endorse the product, than the very concept of celebrity endorsement starts losing its luster (Sadhu Ramakrishna, 2005). A new trend of giving shock treatment to the consumers through advertisement has been observed. The shock is delivered by incorporating an absurd name, obscenity or vulgarity, quite opposite to the traditional values (Vandana Pareek, 2008). In India, Advertising Standards Council of India (ASCI) is the watchdogs to take care of the interest of viewers. Through 11th amendment in June 1999, powers have been extended to effectively deal with violation of any

code of conduct by the Cable TV and Cable TV operators. (Dhananjay Keskar 2008). There is a need to extend the authority of ASCI to other media of advertisements. The tendency of a celebrity endorser endorsing many brands creates confusion. A negative message percolates among the viewers. The consumers of the product find it difficult to relate the brand with the celebrity. (Tripp et al., 1994; Hsu and McDonald, 2002). Nam-Hyun Um (2008) conducted a study to assess the impact of multiple products and multiple celebrity endorsement. Very conflicting results were extracted through the study, as 'Multiple product endorsement' and 'Single product endorsement' by a celebrity were on the same platter. A celebrity, endorsing multiple brands is often considered working only for the sake of money. Consumers also start feeling ditched and the intentions of endorser are also questioned (Pringle, 2004).

The academicians may have diversified views but this is a fact that a sizable chunk of the viewers still gets tempted to follow the steps of their idol celebrity. A trend was observed by Pringle (2004) and predicted that coming time will witness increased use of celebrity endorsement. Johanna Jansson Rajakaski and Regina Simonsson (2006) have tried to facilitate researchers intending to take the subject of celebrity endorsement. Most of the studies, discussed under the literature review, focused on one or two factors in isolation. Some of the studies adopted comprehensive approach but were area specific. In the present study an attempt has been made to take a holistic approach to discuss the various dimensions of celebrity endorsement.

OBJECTIVES OF THE STUDY

The purpose of pursuing this study was to analyze the customer's perception with respect to celebrity endorsement. The paper focuses on undernoted key issues:

1. Identify the influence of celebrity endorsement on consumer buying behavior
2. To evaluate the basic situations where celebrity endorsement can be helpful to a Brand.
3. To analyze study the situations where this strategy may not be effective.
4. To identify how is celebrity endorsee advertisement perceived

RESEARCH METHODOLOGY

Primary data was collected through field survey method. The sample size was confined to 300 respondents. A fine mix of different age groups was

taken into consideration to avoid concentration on any 'one' specific group. Random sampling method was adopted for selecting respondents. Primary data was collected through specially structured questionnaire. Before embarking on to collect the data to be used in the research study, a pilot test was conducted, which comprised 10% of the total sample size for checking feasibility of questionnaire. A few questions were removed and a few added up to get the answers of the Hypothesis. The study area included Dehradun, Harwar and Roorkee. Secondary data was collected from various relevant journals, e-journals and research studies.

Analytical tools used in analysis

Chi square test was employed to analyze the relationship between independent attribute and the level of impact of celebrity endorsement. The test of goodness of fit is conducted by setting up null and alternative Hypothesis. The values of Chi-Square has been computed using the formula

$$\text{CHI-square } \Sigma \chi^2 = \Sigma ((O - E)^2 / E)$$

Where:

- O- Observed value
- E- Expected value
- Degree of freedoms=(R-1)(C-1)
- Level of significance

Empirical Results

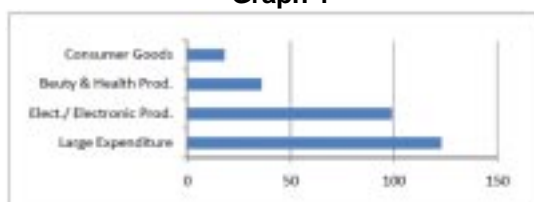
5.1 The first question was designed to peep into the

Table 1

	Once a week	Once a month	Twice a month	Never
Male	25	55	40	20
Female	45	65	55	10

personal lifestyle of the respondent. Very negligible number of respondents was found to never use any lifestyle product. Almost two third of the respondents response conveyed their increasing consciousness towards life-style products. 5.2 As regards the factors affecting the buying behavior of the respondents, the extracted percentagewise results were found tilted towards the celebrity endorser and the brand name, which is depicted from the undernoted details:

Graph 1



5.3 Third question was designed to gauge their preference towards celebrity endorsement. It was found that 55 percent respondents favored the endorsement of the product by a celebrity. While 20 percent were neutral towards celebrity endorsement factor. 25 percent of the respondents showed their displeasure towards celebrity endorsement owing to several reasons.

5.4 Respondents were asked to rate the statement "Male endorser is more effective than female endorser" at five point Likert scale. The Null Hypothesis tested was:

Hypothesis

Ho: Consumer preference for advertisement will not be affected if the product is endorsed by a male celebrity.

Ha: Consumer preference for advertisement will be affected if the product is endorsed by the male celebrity

The rejection criterion was set:

$$D.F.: 5-1=4$$

At alpha 0.5 and df =4, The critical value from chi square distribution table is 9.49

Table 2

PREFERENCE	MALE	FEMALE	ROW TOTAL
Strongly agree	75	15	90
Agree	15	45	60
Neutral	30	30	60
Disagree	15	30	45
Strongly disagree	30	15	45
Column total	165	135	300

Table 3: Frequency Expected

PREFERENCE	MALE	FEMALE	ROW TOTAL
Strongly agree	49.5(165x90/300)	40.5(135x90/300)	90
Agree	33	27	60
Neutral	33	27	60
Disagree	24.75	20.25	45
Strongly disagree	24.75	20.25	45
Column total	165	135	300

Table 4: χ^2 Calculation

	Male	Female
Strongly agree	(75-49.5)/49.5=13.2	(15-40.5)/40.5=16
Agree	(15-33)/33=9.9	(45-27)/27=12
Neutral	(30-33)/33=.28	(30-27)/27=.33
Disagree	(15-24.75)/24.75=3.9	(30-20.25)/20.25=4.7
Strongly disagree	(30-24.75)/24.75=1.2	(15-20.25)/20.25=1.37
Column total	28.48	34.4

$$\chi^2 = 62.88$$

This is a common notion that the female celebrities make the brand or product more visible but the results obtained are quite opposite. Chi square statistics exceeded the critical value of 9.49. Hence null hypothesis was rejected. The results have conveyed a very strong message that the Male celebrity endorsers are more effective than female celebrity endorser.

5.5. One question was designed to judge the effectiveness of celebrity endorsement as a strong marketing tool. The Hypothesis tested is:

Ho: Celebrity endorsement is not an effective tool of persuasion

Ha: Celebrity endorsement is an effective tool of persuasion

Setting the rejection criteria

DoF=5-1=4

At alpha .05 and 4 degrees of freedom, the critical value from the chi square distribution is 9.49.

The result of the test conducted is as under:

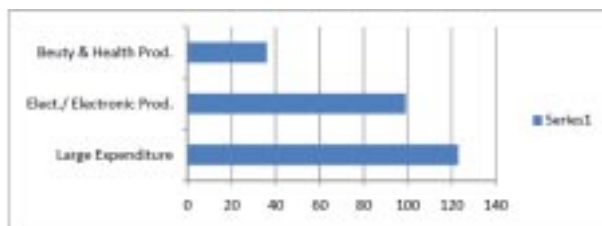
Table 5

	Observed	expected	O-E	(O-E) ²	(O-E) ² /E
Very likely	135	60	75	5625	93.75
Likely	45	60	15	225	3.75
Neutral	30	60	30	900	15
Unlikely	60	60	0	0	0
Very unlikely	30	60	30	900	15
					$\chi^2=127.5$

As the value of chi square exceeds the critical value, null hypothesis is rejected and alternative hypothesis is accepted. That is, celebrity endorsement is an effective tool of persuasion to induce the customer to purchase the product.

5.6 A question "Will the consumer search more about a product endorsed by a celebrity" was incorporated in the study. The aim was to check the visibility of the product after celebrity endorsement. The results are shown in the graph given hereunder:

Graph 2

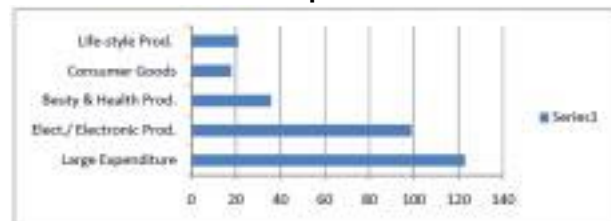


The results show that even though the consumers do not trust the celebrities completely but

even then they look for the products endorsed by any celebrity.

5.7 An attempt was made to assess the type of product in which celebrity endorsement can be more successful. Hence the question asked was, "For which type of products do you seek more information" i.e., other than celebrity endorsement.

Graph 3



The results divulged that consumer do not rely on the advertisement endorsed by any celebrity with respect to the products involving heavy expenditure and electronic products. They try to seek maximum information from the other sources relating with the quality, price and other relevant information. But as regards lifestyle products, consumer goods and products related with Beauty and healthcare the Producer can make best use of a celebrity endorser.

5.8 As regards the preference between a Bollywood star and a Sports star, majority of people still prefer Bollywood stars than sports stars. The Hypothesis tested was:

Ho: People do not like to see Bollywood stars more than sports star endorsing their brands.

Ha: People prefer to see Bollywood stars endorsing their brands than sports star.

Step 2: Set the rejection criteria:

DoF=5-4=4

At alpha .05 and 4 degrees of freedom, the critical value from chi square distribution is 9.49

Step 3. Compute the test statistics: $\chi^2 = \sum (O-E)^2/E$

Table 6

Celebrity person	Observed	Expected	(O-E)	(O-E) ²	(O-E) ² /E
Bollywood star	165	100	65	4225	42.25
Sports star	75	100	-25	625	6.25
None of the above	60	100	-40	1600	16
					$\chi^2=64.5$

As the chi square statistics exceeded the critical value of 9.49, hence null hypothesis is rejected. The myth is not broken and the results conveyed the message that Bollywood stars still have more appeal than sports star.

FINDINGS

1. Only 10 percent respondents were found to never use any lifestyle product conveying increasing consciousness towards life-style products.
2. 65 percent respondents' interest was found tilted towards the product endorsed by a celebrity or associated brand name.
3. Almost half of the respondents expressed their distrust on celebrities but even than they look for the products endorsed by any celebrity
4. The results of chi square established that the celebrity endorsement is an effective tool to affect positively the consumer's decision towards a product.
5. One very interesting finding extracted from the chi square statistics is that the male endorsers are more popular and effective than their female counterparts.
6. 74 percent respondents expressed the need for extra care and information for high value products, electrical and electronic products
7. Bollywood stars are still the rulers of the advisement domain.

LIMITATIONS OF THE STUDY

- Many of the respondents were very critical about the culture the celebrities are roping in the social system. Hence, were very biased towards using any celebrity in the advertisement at all.
- It was not possible to collect the opinion of the celebrities who are endorsing brands.
- The sample size is relatively small from which primary data has been collected. Hence the conclusions drawn are area specific and any generalization will need a cautious approach.

Scope for Further Study

In the next prospective empirical study by the author, the scope of the study is designed to be widened. An increase in the number of respondents is proposed. Some more statistical tools are intended to be used to get more conclusive results. An interesting result i.e., the male celebrity endorser is more popular and effective than female celebrity endorser, needs further verification.

SUGGESTIONS

1. Despite of the distrust shown by the respondents

in the celebrity's credibility, the producers can still reap the benefits of celebrity endorsement after taking into consideration the different factors discussed in the study.

2. Brands may carefully check the possibilities of the success of male celebrities towards endorsing the product.
3. The celebrity endorsement can extend a 'Midas touch' to the sales of the life-style products, consumer goods and beauty and healthcare products.
4. It will be the best strategy to match the type of product with the field of the prospective celebrity.

CONCLUSION

Celebrity endorsement decisively gives more visibility to the product endorsed. What-soever the ground realities may be, but the masses still try to imbibe a style imitating the celebrities. But celebrity endorsement is fraught with several dangers like overexposure, overshadowing the brand, negative publicity of the endorser to name a few. The Brands, taking into consideration all the related factors, can make best use of either the 'Bollywood stars' or 'Sports star' to endorse their product. The economic aspect is always needed to be scrutinized, by the big brands also, before hiring any celebrity. All the related factors have to be taken care of; otherwise the celebrity endorsement may prove to be a landmine having a devastating impact on the profitability, product's future prospects and brand image.

REFERENCE

- Bertrand, K. and Todd, S. (1992), "Celebrity Marketing: The Power of Personality; Golf Legends Drive Marketing Campaigns", *Business Marketing*, 77, No.8, pp. 24-28.
- Blackwell, Minard, Engel, (2006) 'Consumer Behavior', Thomson South-Western, ISBN: 81-315-0184-1, 10th Edition.
- B. Zafer Erdogan, Michael J. Baker and Stephen Tag (2001) June, "Selecting Celebrity Endorsers: The Practitioner's Perspective", *Journal of Advertising Research*, 39-48
- Caballero, M.J., Lumpkin, J.R. and Madden, C.S. (1989), "Using Physical Attractiveness as an Advertising Tool: An Empirical Test of Attraction Phenomenon", *Journal of Advertising*, 29, (Aug-Sept), pp. 16-22.
- Chawla, S.K., Dinesh, D.S. and Barr, P.B. (1994), "Role of Physical Attractiveness in Endorsement: An

- Empirical Study", *Journal of Professional Services Marketing*, 10, (2), pp. 203-215
- Dean (1999), "Brand Endorsement, popularity, and Event Sponsorship as advertising cues affecting consumer Pre purchase attitude", *Journal of Advertising*,³ Volume XXVIII, Number 3, 1-12.
- Debevec, K. and Kernan, J.B. (1984), "More Evidence on the Effects of a Presenter's Physical Attractiveness: Some Cognitive, Affective and Behavioral Consequences" In: *Advances in Consumer Research*. Kinnear, T.C., (Ed.) Vol. 11. Provo, Utah: Association for Consumer Research. pp. 127-132.
- Del I Hawkins, Roger, Kenneth, Mookerjee (2004), 'Consumer Behavior, Buliding Marketing Strategy', The McGraw-Hill Publishing Companies Ltd, New Delhi, Ninth Edition.
- Dhananjay Keskar, 2008, 'The Advertising Standard Council of India Gets Teeth', *Advertising Express*, Ref # 1d8M-2008-06-08-0, page 39-47
- Erdogan (1999), "Celebrity Endorsement: A Literature Review"⁴, *Journal of Marketing Research*, 15, 291-314
- Friedman, H.H. and Friedman, L. (1979), 'Endorser Effectiveness by Product Type', *Journal of Advertising Research*, 19(5),63-71.
- Goldsmith, Lafferty and Newell (2000), "The Impact of Corporate Credibility and Celebrity Credibility on Consumer Reaction to Advertisements and Brands", *Journal of Advertising*, Volume XXIX, number 3, 43-54
- Hindu Business Line, 2003, Tellis, Effective Advertising: Understanding When, How, and Why Advertising works
- Hoeke and Stuart A, 1989, "The impact on advertising effectiveness and credibility" *Journal of advertising*, (Accessed on 27th november'09)
- Hsu, C.K. and McDonald, D. (2002), 'An Examination on Multiple Celebrity Endorsement in Advertising', *Journal of Product and Brand Management*, 11(1), 19-29.
- Johanna Jansson Rajakaski and Regina Simonsson (2006), 'The Subject of Celebrity Endorsement: What it was and what it has become – A literature review, Bechelor thesis, Lulea University of Technology
- Kahle, L.R. and Homer P.M. (1985), 'Physical Attractiveness of the Celebrity Endorser: A Social Adaptation Perspective', *Journal of Consumer Research*, 11 (4) 945
- L. K. Mathur, I. Mathur and N. Rangan (1997) June, "The Wealth Effects Associated with a Celebrity Endorser: The Michael Jordan Phenomena", *Journal of Advertising Research*,
- McCracken, G. (1989), "Who is the Celebrity Endorser? Cultural Foundation of the Endorsement Process", *Journal of Consumer Research*, 16, (December), pp. 310-321.
- Mehta, A. (1992), 'How Advertising Response Modelling (ARM) Can Increase Ad Effectiveness', *Journal of Advertising Research*, 34, No. 3, 62-74 Misra, S. and Beatty, S.E. (1990), "Celebrity Spokesperson and Brand Congruence: An Assessment of Recall and Affect", *Journal of Business Research*, 21 (September), 159-173
- Nam-Hyun Um (2008), 'Exploring the Effects of Single vs. Multiple Products and Multiple Celebrity Endorsements', *Journal of Management and social Sciences*, Vol. 4. No. 2. (Fall 2008) 104-114.
- Ohanian, R. (1990), 'Construction and Validation of a scale to measure Celebrity Endorsers' Perceived Expertise', *Journal of Advertising*, 19(3), 39-53
- Pringle, H. (2004), 'Celebrity Sells', John Wiley & Sons, Chichester
- Priyanka Rawal, 2009 *Advertising Express*, 'Advertising Communication at Its Best', page 24-30
- Irene Roozen, (2008) , 'The Relative Effectiveness of Celebrity Endorsement for Beauty, High-and Low Involvement Product Print Advertisements, downloaded on 12 July 2009
- Sadhu Ramakrishna, Dec 2005, *Effective Executive*, Ref # 03M-2005-12-05-01, *Television Advertising Needs more Creativity*, Page 21-23
- S. Ramesh Kumar, (2006), 'Conceptual Issues in Consumer Behaviour, ISBN 81-7758-862-1, First Impression, Dorling Kindersley (India) Pvt. Ltd.
- Subroto Sengupta, (2005), 'Brand Positioning, Strategies for Competitive Advantage', Tata McGraw-Hill Publishing Company Ltd. 2nd Edition
- Till, B.D. and Busler, M. (1998), 'Matching Products with Attractiveness v/s Expertise', *Journal of Consumer Marketing*, 15(6), 576-586.
- Till, B.D. and Shimp, T.A. (1998), 'Endorsers in Advertising: The case of Negative Celebrity Information', *Journal of Advertising*, 27 (1), 67- 82.
- Tripp, C, Jensen, T.D. and Carlson, L. (1994), 'The Effect of Multiple Product Endorsement by Celebrities on Consumers' attitudes and Intention', *Journal of Consumer Research*, 20(4) - 535-547.

TRAINING & DEVELOPMENT IN PUBLIC ORGANIZATION WITH REFERENCE TO LIC, INDIA

Vikas Agarwal*

Table of Contents

- Abstract
- Introduction
- Objectives of the Study
- Review of Literature
- Research Methodology
- Findings & Limitations
- SWOT Analysis
- Recommendation and Suggestion
- Conclusion
- References

ABSTRACT

Human Resource is the most vital resources for the reason that is the only resource which has got brain. Even the computer brain which has been developed has human brain behind it. Development is a systematic process of learning and growth by which managerial personnel gain and apply knowledge, skills, attitudes and insight to manage the work in their organization effectively and efficiently. Present study emphasis the attitude of employees towards Training and Development programmes affect their performance. To achieve this objective primary data is collected with the help of questionnaires as well as Interview method. The questionnaires were filled up by 100 employees. In this research paper the hypothesis taken up for conducting the research was true and training and development programmes adopted by LIC help in improving employee's performance.

INTRODUCTION

The Parliament of India passed the Life Insurance Corporation Act on the 19th of June 1956, and the Life Insurance Corporation of India was created on 1st September, 1956, with the objective of spreading life insurance much more widely and in particular to the rural areas with a view to reach all insurable persons in the country, providing them adequate financial cover at a reasonable cost.

LIC had 5 zonal offices, 33 divisional offices

and 212 branch offices, apart from its corporate office in the year 1956. Since life insurance contracts are long term contracts and during the currency of the policy it requires a variety of services need was felt in the later years to expand the operations and place a branch office at each district headquarter. Re-organization of LIC took place and large numbers of new branch offices were opened. As a result of re-organization servicing functions were transferred to the branches, and branches were made accounting units. It worked wonders with the performance of the corporation. It may be seen that from about 200.00 crores of New Business in 1957 the corporation crossed 1000.00 crores only in the year 1969-70, and it took another 10 years for LIC to cross 2000.00 crore mark of new business. But with re-organization happening in the early eighties, by 1985-86 LIC had already crossed 7000.00 crore Sum Assured on new policies.

Today LIC function with 2048 fully computerized branch offices, 100 divisional offices, 7 zonal offices and the corporate office. LIC's Wide Area Network covers 100 divisional offices and connects all the branches through a Metro Area Network. LIC has tied up with some Banks and Service providers to offer on-line premium collection facility in selected cities. LIC's ECS and ATM premium payment facility is an addition to customer convenience. Apart from on-line Kiosks and IVRS, Info Centres have been commissioned at Mumbai, Ahmedabad, Bangalore, Chennai, Hyderabad, Kolkata, New Delhi, Pune and many other cities. With a vision of providing easy access to its policyholders, LIC has launched its SATELLITE SAMPARK offices. The satellite offices are smaller, leaner and closer to the customer. The digitalized records of the satellite offices will facilitate anywhere servicing and many other conveniences in the future.

LIC continues to be the dominant life insurer even in the liberalized scenario of Indian insurance and is moving fast on a new growth trajectory surpassing its own past records. LIC has issued over one crore policies during the current year. It has crossed the milestone of issuing 1,01,32,955 new policies by 15th Oct, 2005, posting a healthy growth rate of 16.67% over the corresponding period of the previous year.

*Senior Lecturer, Nimbus Academy of Management, Dehradun

From then to now, LIC has crossed many milestones and has set unprecedented performance records in various aspects of life insurance business. The same motives which inspired our forefathers to bring insurance into existence in this country inspire us at LIC to take this message of protection to light the lamps of security in as many homes as possible and to help the people in providing security to their families.

Some of the important milestones in the life insurance business in India are :

1818 : Oriental Life Insurance Company, the first life insurance company on Indian soil started functioning.

1870 : Bombay Mutual Life Assurance Society, the first Indian life insurance company started its business.

1912 : The Indian Life Assurance Companies Act enacted as the first statute to regulate the life insurance business.

1928 : The Indian Insurance Companies Act enacted to enable the government to collect statistical information about both life and non-life insurance businesses.

1938 : Earlier legislation consolidated and amended to by the Insurance Act with the objective of protecting the interests of the insuring public.

1956 : 245 Indian and foreign insurers and provident societies are taken over by the central government and nationalised. LIC formed by an Act of Parliament, viz. LIC Act, 1956, with a capital contribution of Rs. 5 crore from the Government of India.

MISSION : "Explore and enhance the quality of life of people through financial security by providing products and services of aspired attributes with competitive returns, and by rendering resources for economic development".

VISION : "A trans-nationally competitive financial conglomerate of significance to societies and Pride of India".

VISION 2012 OF THE CORPORATION

LIC will be :

1. The dominant financial conglomerate of India with widespread global footprint.
2. An innovative company both in terms of product and marketing.
3. A global benchmark for customer satisfaction

An employer of choice known for its vibrant and multi skilled workforce.

A role model for corporate governance and social responsibility.

OBJECTIVES OF THE STUDY

The Notion behind carrying out this study focused on having an in-dept analysis of the prevailing training and development programmes at LIC with the help of a survey of the HR practices.

Training refers to the method used to give new or present employees the skills they need to perform their job. Training is the process of increasing the knowledge and skills for doing a particular job. It is an organized procedure by which people learn knowledge and development is a long term educational process utilizing a systematic and organized procedure by which managerial personnel learn conceptual and theoretical knowledge.

Specific Job

- To understand attitude of employees towards training programmes
- To know the effect of training on the employees performance
- To understand the attitude of top level management towards implementation of training programme.
- To know about the effectiveness of training policy towards the achievement of organization's objectives and vision.

How Should be the Policies

- 1) Training must contribute in keeping people abreast of latest information, technical knowledge in specialized areas and develop their personality to suit the position/designation that they are occupying.
- 2) Training must also prepare an individual to understand and assesses his job content so that he can perform with confidence and suggest improvements in processes involved.
- 3) Training must help to acquire required supervisory and management skills in keeping with the position and improve decision making and problem solving skills. Better engagement and productivity must be quantified from time to time.
- 4) Training must focus on assisting an individual in managing change.

- 5) The higher levels of Training Institutes should be engaged in market research which will contribute in maintaining our leadership position, through better and cheaper products, better CRM skills and leading edge in information technology.

Training Strategy ; Design, Implementation and Evaluation

- 1) The Training policy is formulated at the Central Office and the Central Office reserves the right to make any modifications required. However the implementation of the training policy will come under the purview of Principals of Zonal Training Centres in each zone.
- 2) Training modules must be designed differently so as to suit the specific needs of a target group-e.g. Functional Topics must concentrate on theoretical aspects and case studies.
- 3) Ideally training sessions for management cadre (ADM and above) should be conducted at MDC, so that along with functional and theoretical inputs, some managerial leadership and decision making are also included.
- 4) Training inputs for clerical staff and officers up to A.O can be conducted at the Zonal Training Centers, Divisional and Employees Training Centers.

Here the emphasis would be on subject specific.

Knowledge, use of relevant FEAP modules etc.

- 5) Whenever an employees is posted to a new department he must undergo a technical training session to give him required inputs.
- 6) That apart each employee must attend at least one training session each year to update his knowledge.

REVIEW OF LITERATURE

Training refers to the method used to give new or present employees the skills they need to perform their job and development is a long term educational process utilizing a systematic and organized procedure by which managerial personnel learn conceptual and theoretical knowledge.

Training plays a key role in performance management. The process employers use to make sure employees are working towards organizational goals. It means taking an integrated, goal oriented approach to assigning, training, assessing and rewarding employees performance. Training is a

process of learning a sequence of programme of behavior. It is application of knowledge. It attempts to improve their performance on the current job or prepare them for an intended job.

Training programme available now for developing a variety of skills starting from memory improvements, leadership, motivation, team building, rational decisions making human resources development, computer programming corporate planning to entrepreneurship development. Training can be made very useful for organization if the training function is managed well.

Importance of Training

Training is the corner stone of sound management for its makes employees more effective and productive. It is actively and intimately connected with all the personnel or managerial activities. It is an integral part of the whole management programme, with all its many activities functionally interrelated. There is a need for training men so that new changed techniques may be taken advantaged of and improvement affected in the old method, which are more fully inefficient.

Need of Training

1. To increase productivity
2. To improve quality
3. To help a company fulfill its future personnel need
4. To improve organizational climate
5. Personnel growth

Steps in Training Process

- Identifying training needs
- Instructional design
- Validation step
- Implementation
- Evaluation

Methods of Training

It is of following types :

- 1) On the job training (OJT) : Training a person to learn a job while working on it.
- 2) Off the job training : It is of following types
 - a) Lectures – it has several advantages. It is quick and simple way to provide knowledge to large group of trainees.
 - b) Case study – a development method in which the manager is presented with a written description of an organizational problem to diagnose and solve.

- c) Conferences
- d) Role playing – a development technique in which teams of managers compete by making computerized decisions regarding realistic but stimulated situation.
- e) Management games – a development technique in which teams of managers compete by making computerized decisions regarding realistic but stimulated situation.
- 3) Apprenticeship Training- A structured process by which people become skilled workers through a combination of classrooms instruction and on the job training.
- 4) Job instruction training – Listing each job basic tasks, along with key points, in order to provide step-by-step training for employees.

RESEARCH METHODOLOGY

Research methodology is a way to the systematic solution of a research problem. It focuses on the various steps adopted in studying the research problem along with the logic behind using them.

Hypothesis

The training and development programmes adopted by LIC helping improving employee's performance and simultaneously fulfill organization objectives.

Research Design

The highly effective research methodology used can both be Quantitative and Qualitative in employee research. It is necessary to ensure that correct methodology is used for the type of research to be conducted.

Universe

All the items under consideration in any field of enquiry constitute a 'universe'. In our case it is the employees of LIC

Sample Design

A sample design is a definite plan determined before any data are actually collected for obtaining a sample from a given population. In this case I have used convenient sampling.

Sample Size

For this survey the sample size is taken to be 100

Tools of Data Collection

* Primary methods

Observational methods : observation is a way to look at the things, as they exist. It involves the use of various senses and drawing meanings to the things we see or hear. There are a number of things that can be observed by an evaluation.

These may be classified under the following categories

- Physical facilities and living conditions
- Meetings, discussion and other transactions
- Celebrations and other events related to organization life and culture
- Training and other HR related facilities
- Forms and formats, reports, manuals etc.

Interview methods

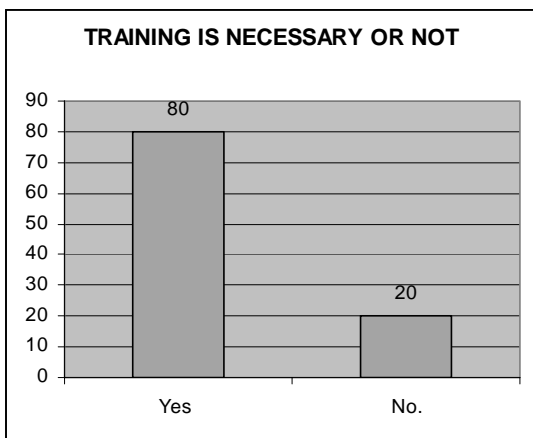
Interview methods is quick and adequate for comprehensive HR audit. Interviewing the various stakeholders can give considerable data about the current areas and directions for the improvements. The main advantage of the interviews is its capacity to capture the primary concern of the people under study. Interview makes the assessment dynamic. In interviewed people in office and thus collected relevant information.

The critical scientific study lies in framing the questions rather than in finding the answers. Thus to reach the correct perspective, it is imperative to go through the right way. The purpose of preparing a questionnaire was to collect concrete information which may give the best possible results to fulfill my objective of the report.

Secondary methods

Analysis of secondary data can give a lot of insight into HR assets and liabilities of the company published literature of the company such as annual report, marked handouts issued also helped in assessing the strengths and weakness.

Training is Necessary	% of Responses
Yes	80
No	20

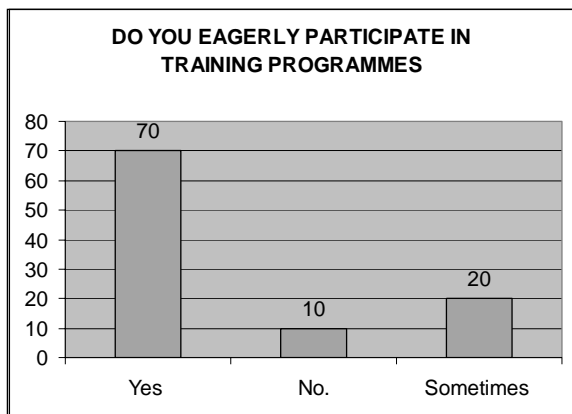


From the graph we can see that :

- Maximum Employees feel that training is necessary (80%)
- Only 20% feel it is not necessary

2. Do you Eagerly participate in Training programmes

Do you eagerly participate in training programmes	% of Responses
Yes	70
No	10
Sometimes	20

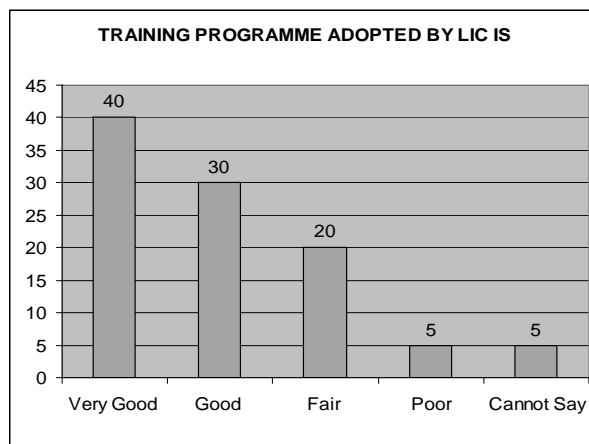


From the graph we can see that :

- Maximum employees feel that they eagerly participate in training programmes (70%).
- 20% employees feel that they sometimes eagerly participate.
- Only 10% do not eagerly participate in training programmes.

3. What do you think about Training programme adopted in LIC.

Training programme adopted in LIC	% of Responses
Very Good	40
Good	30
Fair	20
Poor	5
Cannot Say	5

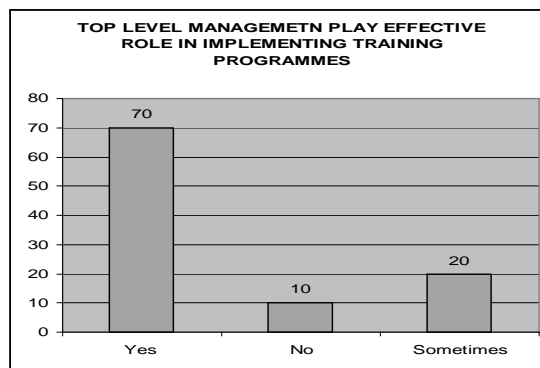


From the graph we can see that :

- 40% employees feel that training programmes adopted by LIC is very good.
- 30% employees consider it to be good.
- 20% employees consider it to be fair.
- 5% employees consider it to be Poor.
- 5% employees cannot say.

4. Does the Top Level Management play effective role in implementing training programme.

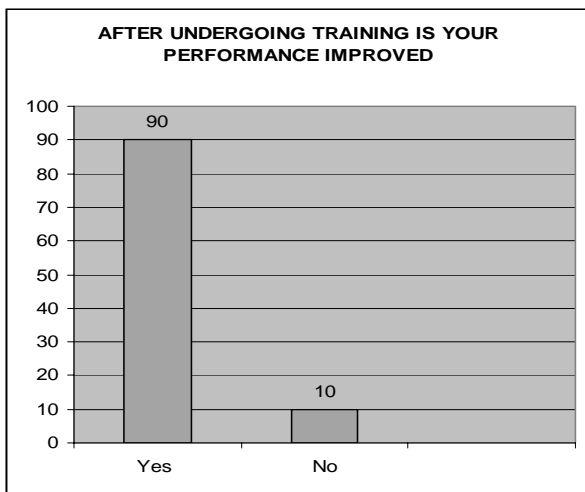
Does the top level management play effective role in implementing training programme	% of Responses
Yes	70
No	10
Sometimes	20



From the graph we can see that :

- Maximum employees feel that top level management play effective role in implementing training programmes (70%).
 - 20% employee feel that top level management play effective role in implementing training programmes sometimes.
 - 10% employees do not feel that top level management play effective role in implementing training programmes.
5. Do you think that after undergoing Training your performance is improved.

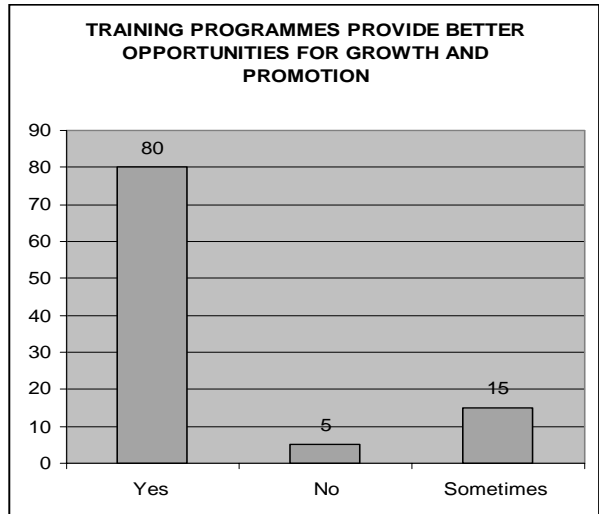
Do you think that after undergoing training your performance is improved	% of Responses
Yes	90
No	10



From the graph we can see that :

- Maximum employees feel that after undergoing training programmes there performance is improved (90%)
 - 10% employees feel that after undergoing training programmes there performance is not improved.
6. Do you think that these Training Programmes give better opportunity for growth and promotion.

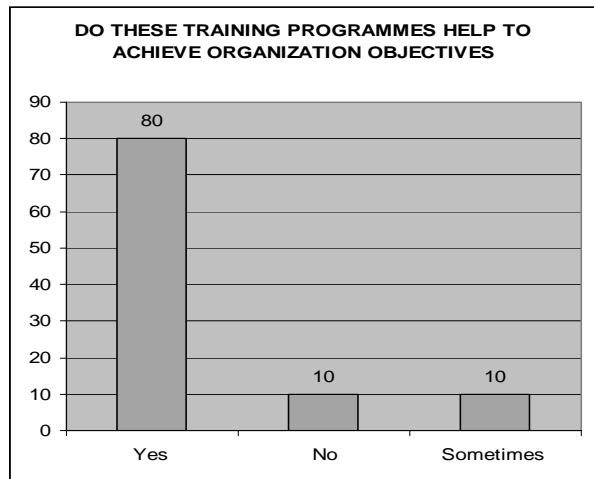
Do you think that these training programmes gives better opportunities for growth and promotion	% of Responses
Yes	80
No	5
Sometimes	15



From the graph we can see that :

- Maximum employees feel that training programmes provide better opportunity for growth and promotion (80)
 - 15% employees feel that after training programmes provide better opportunity for growth and promotion sometimes.
 - 5% employees feel that training programmes do not provide better opportunity for growth and promotion.
7. Do these Training programmes help to achieve organization objectives.

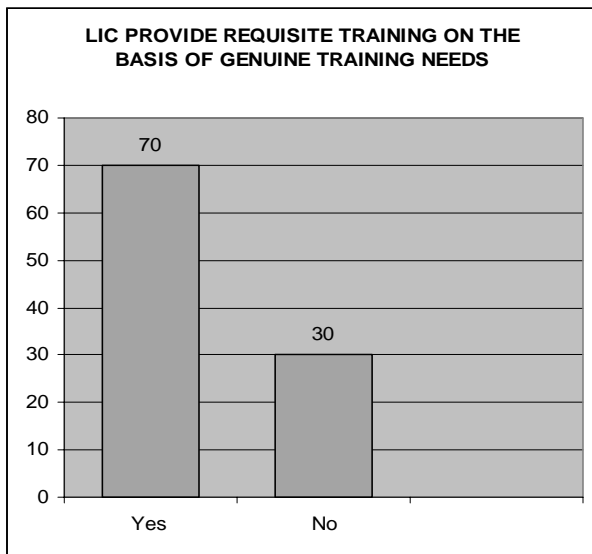
Do these training programmes help to achieve organization objectives	% of Responses
Yes	80
No	10
Somewhat	10



From the graph we can see that :

- Maximum employees feel that training programmes help to achieve organization objectives (80%)
 - 10% employees feel that training programmes somewhat help to achieve organization objectives.
 - 10% employees feel that training programmes do not help to achieve organization objective.
8. LIC provide requisite training on the basis of genuine training needs.

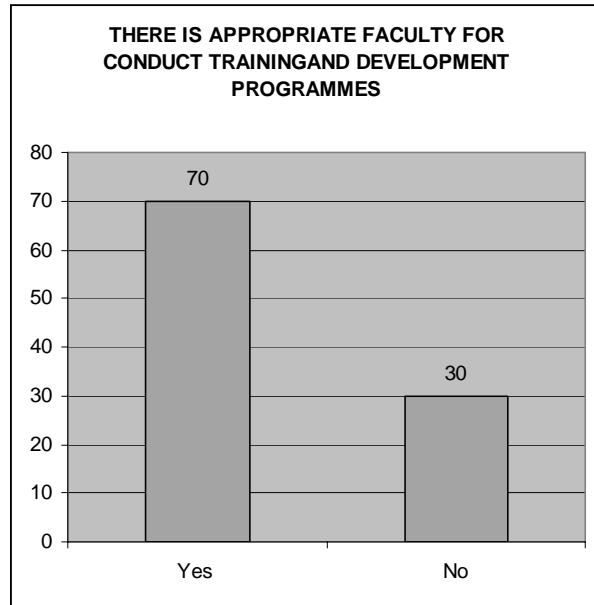
LIC provide requisite training on the basis of genuine training needs	% of Responses
Yes	70
No	30



From the graph we can see that :

- Maximum employees felt hat LIC provide requisite training on the basis of genuine training needs (70%)
 - 30% employees feel that LIC do not provide training on the basis of genuine training needs.
9. There is appropriate faculty for conduct training and development programmes.

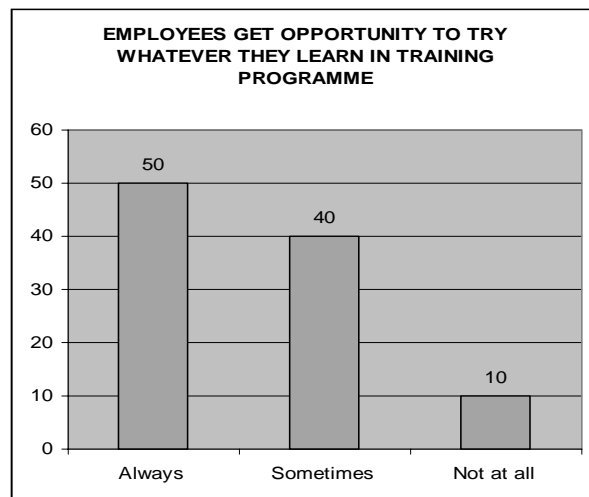
There is appropriate faculty for conduct training and development programmes	% of Responses
Yes	70
No	30



From the graph we can see that :

- Maximum employees feel that there is appropriate faculty for conduct training and development programmes.
 - 30% employees feel that there is no appropriate faculty for conduct training and development programmes.
10. Employees get an opportunity to try out whatever they learn in training programmes.

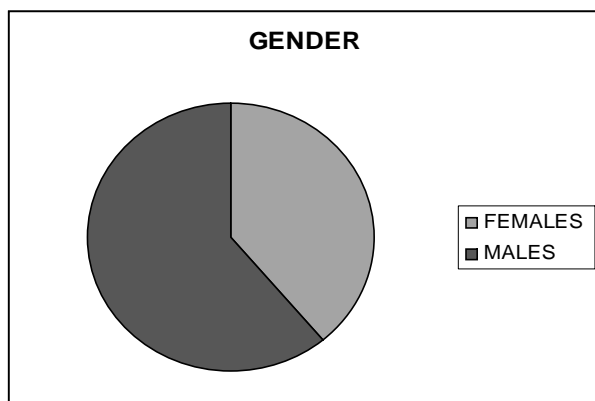
Employee get opportunity to try out whatever they learn in training programme	% of Responses
Always	50
Sometimes	40
Not to all	10



From the graph we can see that :

- 50% employees feel that they get opportunity to try whatever they learn in training programme.
- 40% employees feel that sometimes they get opportunity to try whatever they learn in training programme.
- 10% employees feel that they do not get opportunity to try whatever they learn in training programme.

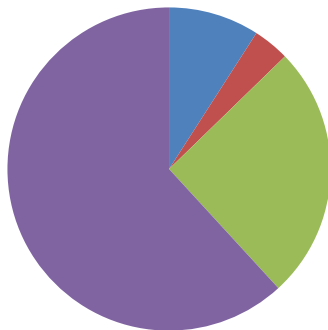
DEMOGRAPHIC ANALYSIS Gender (of respondents)



It can very easily be depicted from the graph that in our sample there are :

- I) Only 39% respondent from our sample were females
- II) Rest 61% respondent from our sample were males

LENGTH OF SERVICE (of respondent)



It can very easily be depicted from the graph that in our sample there are :

- I. 68% respondents have length of service above 15 yr.
- II. 28% respondents have length of service a 10-15 yr.

III. 4% respondents have length of service 5-10 yr.

IV. 10% respondents have length of service 0-5 yr.

FINDINGS

1. 80% employees feel that training is necessary.
2. 70% employees eagerly participate in Training programmes.
3. 40% employees feel that training programme adopted in LIC is very good.
4. 70% employees feel that top level management play effective role in Implementing training programmes.
5. 90% employees feel that after undergoing Training programmes their performance is improved
6. 80% employees feel that these Training programmes give better opportunity for growth and promotion.
7. 80% employees feel that these Training programmes help to achieve organization objectives.
8. 70% employees feel that LIC provide training on the basis of genuine training needs.
9. 70% employees feel that there is appropriate faculty for conduct training and development Programmes
10. 50% employees feel that employees get an opportunity to try out whatever they learn in training programmes.
11. 61% respondents were males and 31% were females.
12. 68% respondents have length of service above 15 years.

LIMITATIONS

1. Many of the employees were reluctant to fill the questionnaire.
2. The sample size of the report is not very large because of the time, cost and accessibility constraint.
3. Faced a bit of difficulty in getting access to the employees.
4. Time constraint, as limited period of time was provided for the survey.
5. Some employees were not aware of all training and development programmes.

SWOT ANALYSIS

Strength

- Wide Geographical Spread
- Large Distribution Network
- Strong IT Infrastructure
- Large Volume
- Brand Image
- Employee Strength

Weakness

- Difficulty in changing perceptions
- Slowing Growth Rate (1.61% in policies in 2007-08)

Opportunities

- Expanding Market
- Leverage embedded strengths

Threats

- 21 competitors with world class expertise
- Innovative products offered by competitors

RECOMMENDATION & SUGGESTIONS

1. There should be more participation from the top level management in implementation of training and development programmes.
2. Awareness and importance of training programmes should be increased.
3. Training and development programmes should be compatible with private sector programmes.
4. Employees engagement to be strengthened in respect of training and development programmes.
5. Matching the right competencies and skills with right job.

CONCLUSION

The result derived from this survey proved that the hypothesis taken up for conducting the research was true and training and development programmes adopted by LIC help in improving employee's performance and simultaneously fulfill organizational objectives. Today the insurance industry is on boom. Many new companies are entering in insurance sector. Through foreign direct investment also foreign companies are entering so in this cut throat competition

various steps are to be taken by LIC in order to compete with the competitors. LIC is emphasizing on training and development needs in order to survive. Training and development programmes help to develop skills in employees which help them to work in the changing scenario. Its task is to attain objective in relation to employees and organization and society with the resources available within the organization. Competitiveness demands diverse workforce and up-to-date skills.

REFERENCES

Human Resource Management by C.B. Gupta.
 Research Methodology by C. R. Kothari.
 Human Resource management by Gary Dressler.

Web Resources :

www.licindia.com
www.google.com

EFFECT OF ECONOMIC RECESSION ON EMPLOYMENT IN INDIA - A CRITICAL ANALYSIS

Randhir Kumar Singh*

Table of Contents

- Abstract
- Introduction
- Economic Recession
- Review of Literature
- Impact of Economic Recession in India
- Objectives of the Study
- Research Methodology
- Analysis of Data
- Conclusion
- Limitations of the Study
- Scope for Further Research
- References

ABSTRACT

The economic recession causes a downslide trend in demand of the finished goods in the domestic as well as international market which ultimately results in the loss of job. The banks are facing huge loss due to sub-prime crisis. The financial conditions of many banks are in a quandary. The economic recession which started in USA in December, 2007 spread all over the world. The Indian economy is also affected due to economic recession in USA since most of the international business of Indian subcontinent is with United States or European countries. Due to the economic recession, lakhs of people lost their jobs. The study is focused on the effect of economic recession on employment scenario in India and its critical analysis. The data has been collected from secondary sources. The analytical research methodology is used to make a critical analysis of the available data.

Present study concludes that due to economic recession lots of people either lost their job or their compensation is shrunked. The employment scenario is same in almost all the industries. The capacity utilization of organizations shows a negative trend in comparison to previous years.

Key words: Economic Recession, Sub-prime crisis, Capacity utilization, Employment Growth Rate

INTRODUCTION

The present economic slow down results in a huge loss to the business and ultimately reduction of job. The banks are facing huge loss due to sub-prime crisis. The big banks like Lehman Brothers, Merrill Lynch etc. have gone bankrupt. India is facing recession not due to indigenous reasons but because of U.S.A. and European countries since Indian economy is more dependent on these countries. Due to the recessionary trends in the international market, Indian companies export orders are either cancelled or the export amount is reduced to a significant limit due to which some of the companies who cannot meet the situation have suffered from loss. The situation is similar in almost all the industries whether they are exporting or non-exporting. Therefore, the government also changes some of its fiscal and monetary policy in order to reduce the intensity of recession.

The financial conditions of many banks are in a quandary. The banks are providing loans with a lot of precautions. Due to the recessionary trends in the market, some of the organizations have suffered huge losses and in order to meet out these losses either they cut down the employee's salary or they reduce the manpower in the organization. Due to these reasons, the unemployment situation in India is more critical than ever before.

ECONOMIC RECESSION

In economics, economic recession is defined as a business cycle contraction, a general slowdown in economic activity over a period of time. During recessions, many macroeconomic indicators vary in a similar way. During economic recession production as measured by Gross Domestic Product (GDP), employment, investment, spending, capacity utilization, household incomes, business profits and inflation all fall; while bankruptcies and the unemployment rate rise. It is believed that economic recessions are generally caused by a widespread drop in spending. Governments usually respond to recessions by adopting expansionary macroeconomic policies such as increasing money supply, increasing

*Sr. Lecturer, Dr. Gaur Hari Singhania Institute of Management & Research, Jaykaylon Colony, Kamla Nagar, Kanpur U.P.

government spending and decreasing taxation (<http://en.wikipedia.org/wiki/Recession>, on April 14, 2010).

Due to economic recession, Gross Domestic Product of various countries decreases and the condition is severe in some areas where people are committing suicide due to job loss. The sub-prime crisis which started in U.S.A in August 2007 later on gripped many other nations including India. Due to the economic recession many companies profit are either reduced or they face losses and some even met the situation of bankruptcy. The effect of recession is analyzed in production as well as service sector.

The recessionary impact that the global financial and economic crisis resulting in huge job losses in various segments of the labour market. A reliable aggregate estimate to the extent of increase in unemployment is not available from the official statistical system. Recognizing that unemployment is on the rise, the government did make an attempt to estimate the impact of the downturn on employment. The Labour Bureau conducted a sample survey covering eight sectors (mining, textile, metals, automobile, gems & jewellery, construction, transport, information technology/business process outsourcing industry) to reach at an approximation of the job loss. The survey was designed to cover a sample of units employing 10 or more workers, with the sample being drawn from 20 centres in 11 states and union territories. On the basis of this limited sample, the total employment in all the sectors covered by the survey is estimated to have declined from 16.2 million during September 2008 to 15.7 million during December, 2008. The actual decline in employment during this period is likely to have been much higher. (Chandrasekhar, C. P., Down and Out, Cover Story, Frontline, March 13, 2009, p.4 - 7).

REVIEW OF LITERATURE

USA is a dominant force in world economy and as per data it represents 21 percent of the world economy. Changing economic statistics pointed towards a possible USA recession and that signified a global downtrend in economic cycle because of domineering impact of American economy. Many countries, particularly developing ones who are heavily dependent on USA and a hint of slowdown in America spelled doom for them. The average spending of American consumers reduced significantly and that resulted in reduced demand for imported items (Kumar Mritunjai, <http://www.mumbaispace.com/economics/recession-2008.htm>, September 26, 2009).

Seven economic downturns often provide

substantial clarity about the historical internal machinations of the corporation which was hidden or thought inconsequential is suddenly thrust onto center stage. The economic turbulence has created many challenges, and yet opportunities will also exist for those who actively seek to be engaged in the process, pro-actively seeking solutions to improve the long-term financial health of the organization (Patterson, Kathleen and Oster, Gary; May 2009).

With a deep recession sweeping across the globe, most of the organizations are feverishly executing cost cutting exercise, to maintain profitability and competitiveness. In spite of recession or boom, talent shortage will continue to haunt the corporate world. A long term strategy should be devised to maintain both internal and external reputation through intelligent strengthening of the value proposition being offered to current and potential employees. A balanced approach in improving the productivity level to counter the negative impact of downturn shall maintain the morale of existing employees, thereby reducing the outflow of valuable contributor which is an unavoidable element of any downsizing exercise. Retention and induction of right talent is a continuous process through out the business cycle consisting of both boom and recession (Abhijit Kar, <http://www.abhijitkar.com/life/talent-management-during-down-turn-1.html>, June 29, 2009).

Five lakh people were rendered jobless between October to December, 2008 due to recession, according to the latest government study. The findings are part of its kind survey conducted by the Labour Bureau, Ministry of Labour and Employment as part of a study on the effect of economic slowdown on employment in India (<http://www.business-standard.com/india/news/500000-jobs-lost-to-recession-in-3-months-govt/54329/on>, September 11, 2009).

Responding to the global slowdown, RBI has recently relaxed monetary policy by reducing the bank rate and the cash reserve ratio in order to increase the liquidity in the banking system. Another encouraging development is the government implementation of the divestment programme by the strategic sale of two of its smaller companies. The impact of these initiatives and the expected increase in agricultural output are, however, likely to affect growth only with a lag (<http://news.indiamart.com/news/analysis/signs-of-deeper-slow-4862.html>, September 11, 2009).

In the global slump that gained momentum in 2008, India has not remained unscathed.

Though the country has not gone into a

recession like the US and much of Europe, and projected growth is still a respectable 5 to 7 percent, the boom times are clearly over. Practically every sector, whether it's the auto industry, the diamond trade or exports, has been hit. As industries fumble to find ways to cut costs, some have laid-off staff or implemented production cuts, while others have downed shutters completely. India's largest private sector conglomerate, Reliance Industries, has also been hit. Reliance and its associate companies have asked about 5,000 employees to resign, according to press reports. Some of the companies involved in the exercise are Reliance Retail, Reliance Logistics, Reliance Info Systems and Reliance Computer Park. The resignations, as against a straight lay-off, leave employees in a better position to find new jobs (Jhunjhunwalla, Saloni; February 8, 2009).

The government of India has taken lots of step to come out from the economic recession. The measures to relax the fiscal constraint to permit a significant increase in investment necessary to arrest and reverse the current deceleration of growth without sacrificing programmes for improving social services and providing social protection have become more compelling and urgent than ever. This calls for a strong restraint in acceding to numerous demands for tax relief, special assistance and bailouts from different groups claiming to be affected by the crisis. Such relief must be discriminating, temporary and kept to the minimum. The focus of fiscal policy must be on reviewing policies and making such changes as will protect the interests of growth over the longer term (Vaidyanathan A., 2009).

IMPACT OF ECONOMIC RECESSION IN INDIA

The impact of global slowdown on India's economy is affecting the employment scenario in India. In fact, the rising joblessness in India has assumed worrisome proportions. With overall economic growth sharply slowing down, the ranks of those people without work are growing in number. With the global slump, the fortunes of those who work in the export industry have become equally bleak (<http://news.indiamart.com/news-analysis/global-recession-imp-21133.html>, September 11, 2009).

The economic recession and its impact as shrinking jobs, pay cuts and loss of perks owing to the recession have taken a heavy toll on the mental health of a large section of India's high-profile workforce. It can be realized in such a way that the large number of youngsters are facing the emotional and psychological problems especially with the age group of 25-30 people. The silver lining is that people are realizing the need for professional help to tackle

emotional stress and coming forward to seek such help (Tripathi, Purnima S., March 13, 2009).

Global economic meltdown has affected almost all countries. Strongest of American, European and Japanese companies are facing severe crisis of liquidity and credit. However, India's cautious approach towards reforms has saved it from possibly disastrous implications. The truth is Indian economy also facing a kind of slowdown. The prime reason being, world trade does not function in isolation. All the economies are interlinked to each other and any major fluctuation in trade balance and economic conditions causes numerous problems for all other economies (Kumar Mritunjai, <http://www.mumbaispace.com/economics/recession-in-india.htm>, September 26, 2009).

The financial downturn that is impacting developed as well as developing economies are likely to get worse as the European countries, the US and others go into a deeper depression due to the increase in job losses which often follows recession. The slump in the market and increased job losses will have some important implications for the changing task of human resource professionals. As the unemployment continues to increase, HR professionals are likely to be dealing with more stressed employees who are the sole wage earners in their families (Mujtaba, Bahaudin G., *The Impact of a Slowing Economy on Human Resource Professionals: Managing Workplace Stress and Coaching*).

OBJECTIVES OF THE STUDY

The objective of research paper is to study the effect of economic recession on the employment scenario in India and its critical analysis. In order to fulfill the objective, following hypothesis was formulated.

Hypothesis: There is no effect of economic recession on the employment scenario in India.

RESEARCH METHODOLOGY

The analytical research methodology is used in the research paper for analyzing the data. The exploratory research design is used in the paper. The source of data is secondary in nature. The data is analyzed with the help of MS Excel 2003 software and then further conclusion is drawn.

ANALYSIS OF DATA

Month-wise estimated Job Loss (Figure 1)

Trends in Average Employment (Figure 2)

Period wise change in Average Earnings (Figure 3)

Industry wise change in employment of manual workers (Figure 4)

Industry wise change in employment of non-manual workers (Figure 5)

Percentage change in capacity utilization (Figure 6)

Comparison of Employment Growth Rate based on IIP* and the present survey (Figure 7)

Source: Appendix (Figures)

DISCUSSION

Analyzing the Figure 1 to 6 and Table 1 to 8, we find that due to economic recession in the market, all the industry like mining, textiles, metals, gems & jewellery, automobile, transport, IT/BPO etc. face negative trends in business which results in the loss of employment. Due to these reasons, organizations are not able to produce in their full capacity.

The states covered during the data collection are Punjab, Uttar Pradesh, West Bengal, Gujarat and Tamil Nadu. The Union Territories which are also covered during the data collection are Chandigarh and Delhi. The centres which are covered in these states are listed in the Table 1 of Appendix.

Figure 1 depicts the month wise estimated job loss during October, 2008 to January, 2009 which is drawn on the basis of Table 2. Figure 2 shows the trends in average employment during October, 2008 to January, 2009 on the basis of Table 3. Along with this figure 3 explains that there is a huge cut down in the salary or compensation of those employees who are still retained by the organization during October, 2008 to January, 2009 which is drawn on the basis of Table 4. Figure 4 and 5 depicts the analysis of percentage change in employment of manual and non-manual workers respectively in different industries including the direct and contract workers both on the basis of Table 6. Figure 6 shows the percentage change in capacity utilization in different industries on an average monthly basis during the period October – December, 2008 on the basis of Table 7. Figure 7 depicts the comparison of employment growth rate based on IIP* and the present survey on the basis of Table 8.

Table 5 of Appendix shows the trends in employment of export and non-export units in various sectors like mining, textiles, metals, gems and jewellery, automobile, transport, IT/BPO etc.

CONCLUSION

The critical analysis of tables and figures itself says that due to economic recession there is a huge loss of employment in all the industry sectors like mining, textiles, metals, gems and jewellery, automobile, transport, IT/BPO etc.

The research paper finds that due to economic recession in the international as well as domestic market, employees are losing their jobs in almost all the sectors. The negative trend in the business results not only in job loss but also reduction in the salary or compensation of the employees.

Thus, the hypothesis that there is no effect of economic recession on the employment scenario in India is rejected. Hence, we can conclude that there is a significant effect of economic recession on the employment scenario in India.

LIMITATIONS OF THE STUDY

The conclusion of the study is drawn on the basis of data collection in 5 different states and 2 union territories only. It may also be possible that the circumstances of economic recession and its effect on employment scenario in India may differ from state to state. The conclusion is drawn because selection of state consists of all parts of Indian territory like East, West, North and South.

The second limitation of the study is that the analysis is done on the data which is covered from manufacturing sector not from service sector.

SCOPE FOR FURTHER RESEARCH

The author has the opinion that it requires a further more detailed study regarding effect of economic recession on employment scenario in India. The further research should also include the effect of economic recession on the employment status of service sector in India like aviation, tourism, hospitality and various other sectors.

REFERENCES

- Abhijit Kar, at <http://www.abhijitkar.com/life/talent-management-during-down-turn-1.html>, on June 29, 2009.
- Chandrasekhar, C. P., Down and Out, Cover Story, Frontline, March 13, 2009, p.4 – 7
- Jhunjhunwalla, Saloni; Business India, Issue No. 806, February 8, 2009; 'When the going gets tough', p.46-54.

Kothari, C. R. (2007), *Research Methodology: Methods & Techniques*, New Age International (P) Limited Publishers, New Delhi.

Kumar Mritunja, at <http://www.mumbaospace.com/economics/recession-2008.htm> on September 26, 2009.

Kumar Mritunjai, at <http://www.mumbaospace.com/economics/recession-in-india.htm> on September 26, 2009.

Mujtaba, Bahaudin G., *The Impact of a Slowing Economy on Human Resource Professionals: Managing Workplace Stress and Coaching*, HRM Review – The ICFAI University Press, Volume – IX, Issue – V, May 2009.

Patterson, Kathleen and Oster, Gary; H.R.M. Review, Volume - IX, Issue – V, May 2009; 'The Global Economic Meltdown – Impact on Corporate Human Resources'; The ICFAI University Press, p.15-18.

Tripathi, Purnima S.; *Frontline*, March 13 2009; 'Mental Meltdown'; p.24.

Vaidyanathan, A.; *Economic and Political Weekly*, Volume XLIV, No. 6, February 7-13, 2009; 'Reviving the Economy: Problems and Prospects', p.8-12.

Tripathi, Purnima S.; *Frontline*, March 13 2009; 'Mental Meltdown'; p.24.

Vaidyanathan, A.; *Economic and Political Weekly*, Volume XLIV, No. 6, February 7-13, 2009; 'Reviving the Economy: Problems and Prospects', p.8-12.

Visit <http://en.wikipedia.org/wiki/Recession> , on April 14 2010.

Visit <http://news.indiamart.com/news-analysis/global-recession-imp-21133.html>, on September 11, 2009.

Visit <http://news.indiamart.com/news-analysis/signs-of-deeper-slow-4862.html>, on September 11, 2009.

Visit <http://www.business-standard.com/india/news/500000-jobs-lost-to-recession-in-3-months-govt/54329/> on, on September 11, 2009.

Zikmund, William G. (2005) 'Business Research Methods', seventh and third reprint edition, Thomson South-Western Publication.

APPENDIX

Figures

Month-wise estimated Job Loss



Figure 1 depicts the month-wise estimated job loss on the basis of Table 2.

Trends in Average Employment

Period wise change in Average Earnings

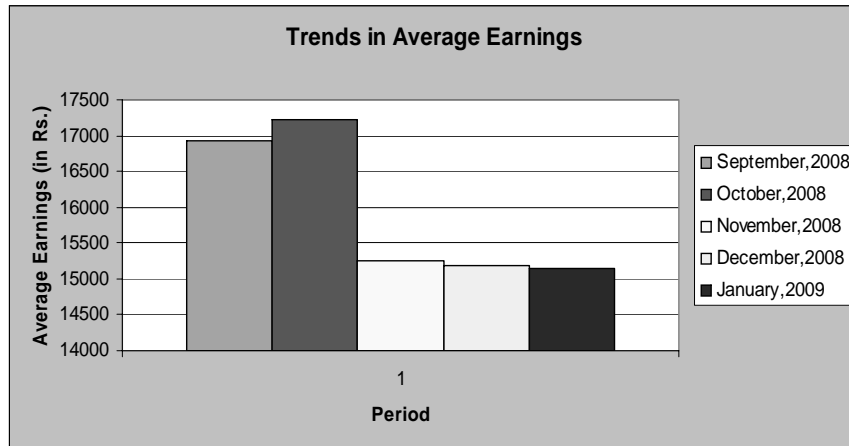


Figure 3 shows the trends in average earning on the basis of Table 4.

Industry wise change in employment of manual workers

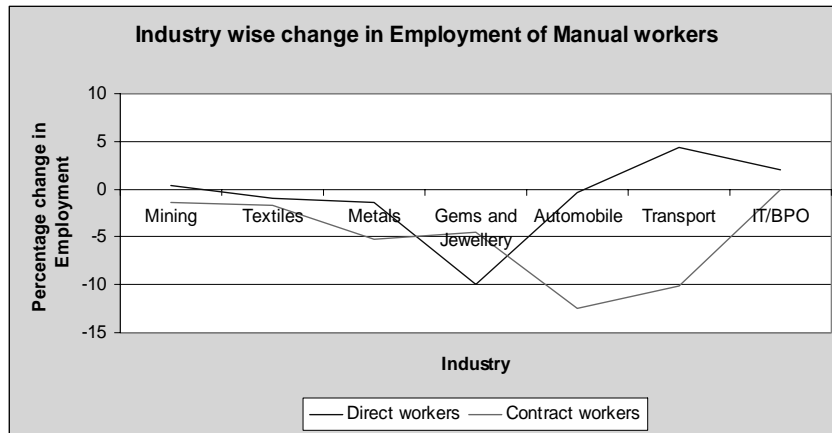


Figure 4 shows the industry wise change in employment of manual workers on the basis of Table 5.

Industry wise change in employment of non-manual workers

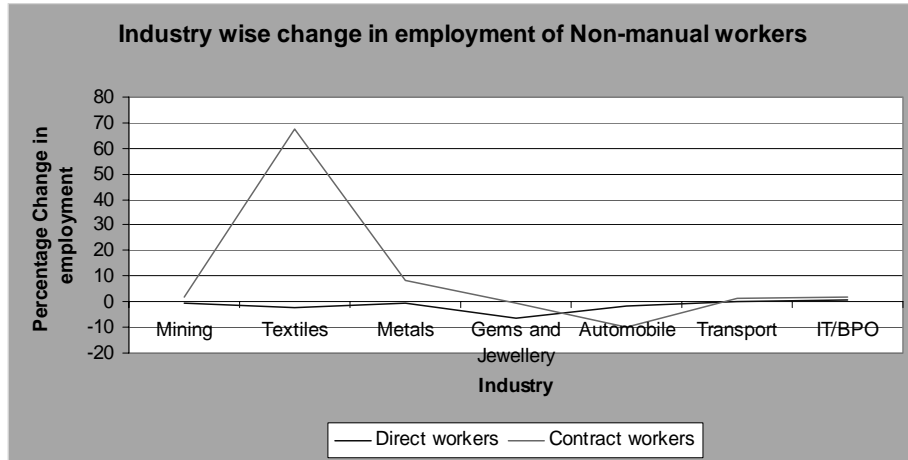


Figure 5 shows the industry wise change in employment of non – manual workers on the basis of Table 6.

Percentage change in capacity utilization

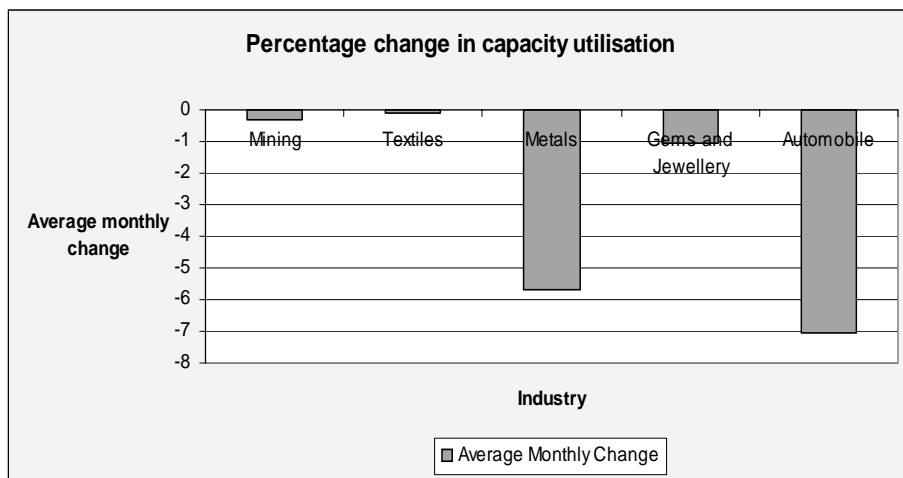


Figure 6 depicts the percentage change in capacity utilization on the basis of Table 7

Comparison of Employment Growth Rate based on IIP* and the present survey

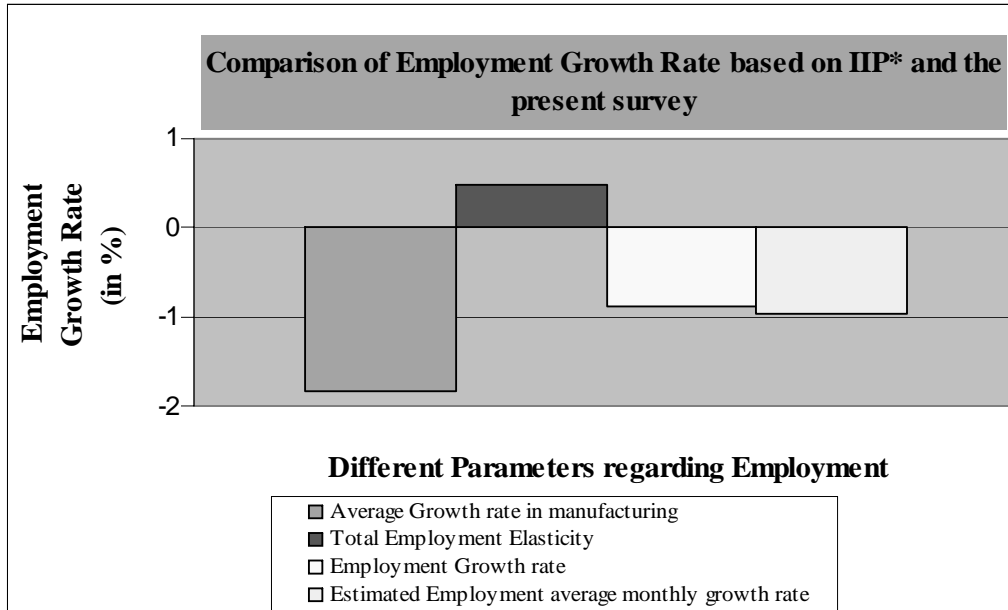


Figure 7 depicts the comparison of employment growth rate on different parameters based on Table 8.

TABLES

Table 1

Centres and States Covered

S. No.	Centres	State / UT
1	Chandigarh	Chandigarh
2	Ludhiana	Punjab
3	Jalandhar	
4	Delhi and NCR Region	Delhi
5	Kanpur	Uttar Pradesh
6	Lucknow	
7	Kolkata	West Bengal
8	Howrah	
9	Ahmedabad	Gujarat
10	Surat	
11	Chennai	Tamil Nadu

Source: Report on 'Effect of Economic Slowdown on Employment in India' (January, 2009), Government of India, Ministry of Labour & Employment, Labour Bureau, Chandigarh.

Table 2

Month-wise Estimated Job Loss

S. No.	Period	Estimated Job Loss	Cumulative Job Loss
1	October, 2008	196092	196092
2	November, 2008	117550	313642
3	December, 2008	177222	490864
4	January, 2009	98156	589020

Source: Report on 'Effect of Economic Slowdown on Employment in India' (January, 2009), Government of India, Ministry of Labour & Employment, Labour Bureau, Chandigarh.

Table 3
Trends in Average Employment

Period	% Rate of Decline
October,08	1.21
November,08	0.74
December,08	1.12
Average Monthly Change during October,08 to December,08	1.01
January,09	1.17

Source: Report on 'Effect of Economic Slowdown on Employment in India' (January, 2009), Government of India, Ministry of Labour & Employment, Labour Bureau, Chandigarh.

Table 4
Trends in Average Earnings

Period	Average Earnings (Rs.)	Percentage Change
September,08	16934	
October,08	17228	1.74
November,08	15259	-11.43
December,08	15182	-0.5
Average Monthly Change (September, 08 to December, 08)		-3.45
January, 2009	15143	-0.26

Source: Report on 'Effect of Economic Slowdown on Employment in India' (January, 2009), Government of India, Ministry of Labour & Employment, Labour Bureau, Chandigarh.

Table 5
Sector-wise Trends in Employment of Export & Non-Export Units

S. No.	Sectors	Average Monthly Rate of Change during October-December, 2008(%)		Monthly Change in January, 09 over December, 08(%)	
		Export	Non - Export	Export	Non - Export
1	Mining	-0.32	-0.33	-	-
2	Textiles	-1.29	0.32	-0.49	0.01
3	Metals	-2.60	-1.24	-0.70	-1.71
4	Gems & Jewellery	-8.43	-11.9	-8.44	-
5	Automobile	-1.26	-4.79	-4.13	-0.78
6	Transport	-	-4.03	-	-2.62
7	IT/BPO	0.33	1.08	-0.13	-4.07
	Overall	-1.13	-0.81	-1.13	-1.24

Source: Report on 'Effect of Economic Slowdown on Employment in India' (January, 2009), Government of India, Ministry of Labour & Employment, Labour Bureau, Chandigarh.

Table 6
Industry wise change in Employment of Manual and Non-Manual workers

Industries	Manual Workers			Non-Manual Workers		
	Direct	Contract	Total	Direct	Contract	Total
Mining	0.41	-1.41	-0.57	-0.35	1.71	-0.05
Textiles	-0.92	-1.63	-0.95	-2.4	67.81	-0.64
Metals	-1.33	-5.22	-2.54	-0.33	8.58	0.15
Gems and Jewellery	-9.97	-4.51	-9.27	-6.17	-0.76	-5.52
Automobile	-0.33	-12.45	-2.53	-1.95	-9.77	-2.08
Transport	4.39	-10.18	-5.58	-0.08	1.13	-0.03
IT/BPO	1.96	-0.05	0.22	0.51	1.89	0.56
Overall	-1.07	-5.83	-1.88	-0.13	6.46	0.16

Source: Report on 'Effect of Economic Slowdown on Employment in India' (October – December, 2008), Government of India, Ministry of Labour & Employment, Labour Bureau, Chandigarh.

Table 7
Percentage Change in Capacity Utilization

Industries	Average Monthly Change
Mining	-0.32
Textiles	-0.09
Metals	-5.68
Gems and Jewellery	-1.03
Automobile	-7.05
Overall	-1.32

Source: Report on 'Effect of Economic Slowdown on Employment in India' (October – December, 2008), Government of India, Ministry of Labour & Employment, Labour Bureau, Chandigarh.

Table 8
Comparison of Employment Growth Rate based on IIP* and the present survey

Average Growth Rate during Oct. – Nov., 08 in IIP (Manufacturing)	Total Employment Elasticity	Employment Growth Rate	Estimated Employment Average Monthly Growth Rate for the period Oct.-Nov.,08
-1.83%	0.48	-0.88%	-0.97%

* IIP stands for Index of Industrial Production

Source: Report on 'Effect of Economic Slowdown on Employment in India' (October – December, 2008), Government of India, Ministry of Labour & Employment, Labour Bureau, Chandigarh.

A STUDY ON RELATIONSHIP BETWEEN VISION AND WORK EFFICIENCY (A CASE STUDY OF VISUAL DISPLAY UNIT'S AT WORK PLACE)

Ranit Kishore*
Ashish Arya**

Table of Contents

- Abstract
- Introduction
- Statement of Objective
- Review of Literature
- Relation Between Vision and Work Efficiency
- Conclusion and Suggestions
- References

ABSTRACT

Millions of people around the world are using the computers not only as a business tool but as a recreational product as well. Predictions indicate that fully more than 70% of the working population will be using computers by the year 2011. There are also approximately 820 million internet users, with an expected explosion of users to over one billion in the next few years. This heavy computer use leads to various problems related to eyes. According to the report over 100 million people in the United States today use computers. More than 50 percent experience eyestrain, headaches, blurred vision and other visual symptoms related to sustained use of the computer the result might be quite similar for India. This type of stress on the visual system can also cause body fatigue and reduced efficiency at work. The authors have tried to conclude some of the major illnesses which may come during normal working hours on a computer with some of the possible solutions of those problems.

INTRODUCTION

Employees are the biggest assets for any organization without them any organization can't even think of its survival. The ultimate objective of any organization is to maximize its wealth and it can happen only through improving the productivity of the company which directly depends on the productivity of the employees which are working in it.

Among the basic function of HUMAN RESOURCE MANAGEMENT performed by any organization, that is:

- Acquisition
- Development
- Motivation
- Maintenance

The last one, that is maintenance is one which requires prime consideration for the consistent performance of the organization, if the health of any employee working in the organization is hampered it directly leads to the decrease in the productivity level of his /her and overall of the org. Essentially, the comfort of employees at computer involves three areas: the environment, the work habits and the visual condition. All of these areas need to be considered to have productive employees.

Major Eye ailments caused by computer:

- Conjunctivitis - itchy, bloodshot eyes - is one substantiated effect of electromagnetic radiation on VDT users. (Dermatitis - red, irritated skin) is also thought to have the same cause.
- The cathode ray tube in the VDT showers you with negatively charged electrons. These impart a negative charge to your body, including your eyes.
- Positively charged dust particles are then attracted to your body, where they may irritate your eyes or clog and irritate your pores.

American Optometric Association has given name to the problem related to vision through computer, "COMPUTER VISION SYNDROME".

Computer vision syndrome is the complex of eye and vision related problem associated with the computer use. The evidence taken from the survey done before in United States backs up the report. The outcomes of the survey was:

- A 1995 article in Eye Care Technology states that 60 millions Americans suffer from visual stress when using video display terminals (VDTs) for three or more hours per day.
- Sheedy (1992) surveyed, 1000 optometrists; about

*Ranit kishore - Assistant Professor, College of Engg. Roorkee, Uttarakhand

**Ashish Arya - Assistant Professor, FMS Department, Gurukul Kangri University, Haridwar, Uttarakhand

1 out of 7 patients requested an eye examination for " symptoms primarily related to using a video display terminal." The proportion of patients with computer vision problems may be even greater today.

- 70 million eye exams given annually in the US and based on Sheedy's survey, as many as 10 million may be motivated by computer related problems.

Computer related health problems are caused by improper use and lack of knowledge about safe computing techniques. According to various reports Incorrect vision in the work force leads to 4-19 % decreased visual task performance. Research has shown that productivity and performance is reduced when looking at a display screen versus paper. Although the quality of the images on a display screen are improving, they do not yet approach that of ink on the paper.

ANTI GLARE SCREENS provides one of the better means to improve productivity as it provides solutions to various problems related to heavy computer use. They form an important part of vision care for employees.

In the industry, the indifference exists at many levels. As far as policies are concerned, there is no protective legislation against COMPUTER RELATED INJURIES (CRI) and there is very little large-scale, countrywide data on the problem. With no legal obligation, few employers provide furniture at the correct height, anti-glare screens for computers or any of the measures that would help prevent CRIs. Neither are they obliged to compensate the victims. According to a recent survey of 50 Chennai-based IT companies, 60 per cent of the firms admitted they do not provide medical allowance or compensation. Only three companies have an HR policy in place for CRI, and only seven have CRI awareness programmes. In fact, most of the big IT firms failed to respond to India today's queries on their HR policies on CRI.

In contrast, most developed countries recognize CRI as a serious occupational hazard and have legislations to protect computer operators from the inherent risks. According to the US Bureau of Statistics, CRI has accounted for 66 per cent of all related illnesses in the US since 1991. The cost in lost productivity and compensation: \$20 billion (Rs 92,000 crore) a year. In India, most workers assume the initial pains to be "normal" for computer users and ignore them.

Awareness, however, is beginning to creep in. Hewlett Packard claims to have a premier ergonomic intervention programme, while others like Compaq, Analog Devices, IBM, Enercon Systems and Stylus Systems have also launched training programmes in Bangalore. Hari Hegde, general manager (infrastructure), Wipro Technologies, asserts the company not only has awareness programmes but also provides medical facilities and compensation. Adds Aseem Bhargava of HCL Technologies: "HCL Tech's BPO partner British Telecom has provided detailed environmental safety guidelines, and the call centre has been designed as per these."

A beginning may have been made, but for the thousands of suffering or potential CRI victims, it is a malady crying for a more focused attention.

STATEMENT OF OBJECTIVE

The objective of the report is to show how computer vision syndrome affects employee's productivity in an organization and how the use of anti glare screen and other effective measures can reduce it to some extent.

REVIEW OF LITERATURE

Computer vision syndrome: Complex of vision and eye problem Computer Vision Syndrome (CVS) has been defined by the American Optometric Association as "the complex of eye and vision problems related to near work, which are experienced during or related to computer use". It consists of a series of signs and symptoms that computer users experience and which are thought to be created by this type of near point activity. Several studies seem to indicate that computer users complain of eyestrain as their main symptom, whereas musculoskeletal disorders are only reported at a lesser frequency. Yet visual problems are painless and slower to develop therefore allowing computer users to continue their work despite these subtle changes.

The first line of attack to this problem is by asking the right questions. A good case history cannot be overemphasized because the employee is using their eyes in every task they perform every day. It is critical that your employee fill out a questionnaire that asks for specific working distances to their display screen, as well as other viewing distances and environmental factors.

There are three factors which contribute to the development of CVS:

- The condition of the employee eyes and/or their correction.
- The physical working environment of the employee; and
- The work habits of the employee.

The symptoms of CVS include eyestrain, blurred near or distance vision, headaches, dry or irritated eyes, neck and/or backaches, light sensitivity or double vision. Any combination of these symptoms may be present and should not be taken lightly when examining an employee with these complaints. Eyestrain is one of the most common complaints of employees in the office. It certainly indicates, that is a problem that is causing discomfort on some level that needs to be addressed. Blurred vision- at near or distance- is a deeper manifestation of a visual problem. The computer user must accommodate to a very unique target that is foreign to the natural viewing requirements of the visual system and it may not always be accomplished with efficiency and accuracy. Over-accommodation can cause distant objects to become blurred, usually right after extended computer use.

Direct Computer Stress Symptoms:

- Headaches while doing or following computer use
- Irritated and/or dry eyes
- Blurred vision
- Slow refocusing when looking from screen to distance objects
- Frequently losing place when moving eyes between copy and the screen
- Difficulty seeing clearly at a distance after prolonged computer use
- Occasional doubling of vision
- Changes in color perception
- Changes in glasses prescription.

Other Computer Stress Symptoms:

- Neck or shoulder tension and pain
- Back pain
- Pain in arms, wrists, or shoulders when working on the computer.
- Lowered visual efficiency and more frequent errors

Threat Which Should be Seen

Study: Glaucoma (2004) linked to Heavy Computer Use

Spending too much time looking at a computer screen may raise your risk of the vision-robbing eye disease glaucoma, particularly if you're nearsighted, according to a new Japanese study. Glaucoma is a group of eye diseases that ultimately cause damage to the optic nerve. It can lead to blindness if not treated. Heavy computer users who were farsighted or nearsighted seemed to have a higher risk for visual field abnormalities, say the researchers. Source: Journal of Epidemiology and Community Health, December 2004; vol 58: pp 1021-1027.

Anti Glare Screen : A Perfect Solution

The display screen is made of glass that causes reflection. Glare is frequently a problem encountered by computer users. Anti glare screen reduces this glare and thereby provides protection against CVS. As mentioned previously the two categories of glare ie: discomfort glare and reflective glare can be minimized using the anti glare screen. Discomfort glare is largely caused by large differences in the field of view. one of the primary reasons discomfort glare is a problem for computer users is that light often leaves the overhead fluorescent fixture in a wide angle, resulting in light directly entering our eyes. Anti glare screen act as a protective shielding against it. Reflection of ceiling lights or windows in the monitor are the common culprits of glare. Reflection off of light surfaces, such as walls, furniture, clothing, etc., may also cause screen glare. Light fixtures directly above the operator can dim the characters with blurred reflections generated in the phosphor layer, Thus it is preferable to install the light fixtures parallel to and on either side of the computer work station.

Repositioning or tilting the work station typically will remove sources of glare from the line of sight. The display screen face should be at right angles to windows and light sources.

Using baffles, venetian blinds, draperies, shades, or filters can reduce window glare.

Walls and work surfaces visible around the screen should be painted a medium color and have a non-reflective finish to limit reflection. Anti glare screen that attach directly to the surface of a VDT screen can help reduce glare. With the help of ANTI GLARE SCREEN reflections of the display screen can be minimized. GLARE coming out of the computer screen is one of the major source of the stress related to vision,

broadly speaking it is the major source of COMPUTER VISION SYNDROME while using ANTI GLARE SCREEN the threat of CVS can be cut down. ANTI GLARE SCREEN performs better than mesh screens. This screen is being recommended by the American Optometric Association. It can be purchased and placed over the display screen.

RELATION BETWEEN VISION AND WORK EFFICIENCY

For the sake of argument, let's put aside the humanitarian reasons for providing eye care, i.e., eliminating the vision and eye symptoms of discomfort in order to make employees feel better. Let's just consider whether it makes economic sense.

Since working at a computer is a visually intensive task, and the sense of vision is used to acquire the information need for job performance, it is reasonable to expect that improvements in the computer display or in the visual capabilities of the user will work towards improving performance efficiency. There are several studies which show that better displays or better vision result in improved efficiency.

Most of us are familiar with VGA displays- the most common display format used with DOS compatible equipment. These displays have a pixel density on the screen of approximately 75 dots/inch (DPI). It has been shown that increasing the pixel density on the screen from 75 DPI to 115 DPI results in 17.4% faster reading performance for 30 minute reading sessions. Likewise reading speed improvements of 4.1% to 19.9% (depending on display type) have been shown for adding a gray scale improvement of image quality. This argues for providing better monitors- but it also argues for providing better vision of the worker. Certainly if subjects with good vision (all study subjects had at least 20/20 vision) can obtain reading speed improvement with a better quality image, a person with poor vision will attain better performance by improving their vision.

There have been other studies into the effects of different types of visual corrections upon occupational task performance. For example, instead of wearing bifocals (for the person over 40) it is possible to be fitted with various types of contact lenses that enable a person to see clearly at distance and at near. One example is to fit one eye with the distance prescription and the other with the near prescription; another example is to wear lenses which have both the distance and near power in them. Despite the known visual compromises

that occur with these types of visual corrections, these correction modalities can be successful for many patients. Even though these vision compromises are "acceptable", it has been shown that they result in 4-8% slower performance on occupational task. If these "acceptable" decreases in vision result in 4-8% productivity loss, we would expect that the more common forms of uncorrected vision, which result in larger losses of visual function, would result in even larger productivity losses.

CONCLUSION AND SUGGESTIONS

The report concludes that the reflection generated and rays coming out the computer screen, affecting the productivity of the employee and also leading to regular victims of COMPUTER VISION SYNDROME harm the employee's vision. The company should think regarding this and should implement ANTI GLARE SCREEN on the computer to minimize this effect.

APPENDIX A

Measures For Prevention While in Front of VDT:

• Rest

Rest your eyes for at least 20 seconds every 30 minutes at a minimum.

Tip: Change the distance of your focusing during rest periods. Look out the window at a far object if possible, or focus on something across the room.

• Monitor Height

Adjust the height of the screen so that the top of the screen is no higher than eye level and the viewing angle for the computer screen is no more than 10 to 15 degrees below horizontal

Tip: Tilted the monitor up or down to help in setting the proper height.

• Monitor Distance

The recommended distance between the eyes and the screen is between 46 and 76 centimetres (18 and 30 inches)

Tip: If you have vision problems, you may have to move the screen closer or further away.

• Use Dominant Eye

When copying from documents, place source documents on the side of the dominant eye

Tip: To determine eye dominance, do the

following while sitting in front of your computer screen:

- Holding your arms straight out in front of you, make a circle with both your hands. Position your hands so that you can see through both circles with one hand in front of the other. Focus on a distant object with both eyes open. Wear glasses if you normally use them to work at your computer.
- Continuing to hold your hands in position, close one eye and then the other. The eye allowing you to see the distant object is your dominant eye.

• Cover Monitor

Cover the monitor with a plastic cover when not in use

Tip: Light on your computer screen reduces its clarity over time.

If you wear glasses or contact lenses:

• Appropriate Prescription

Make sure that your eyeglass prescription is appropriate for the distance to view the monitor

Tip: Most eye doctors can evaluate you for a pair of computer glasses designed to see at 46 and 76 centimetres (18 to 30 inches).

• Bifocals

- if you wear bifocals you may have to place the screen slightly lower and shorten the distance to the screen

Tip: Bifocals are generally designed to be read through downward at a 25 degree angle.

• Contact Lenses

If you wear contact lenses blink often and use artificial tears to reduce eye irritation

Tip: Contact lenses make you blink less than people who have normal vision or wear glasses.

Minimizing glare:

• Overhead Lighting

Reduce overhead lighting and close blinds over windows

Tip: When overhead lighting is reduced to address glare problems, task lighting may become necessary.

• Clean Monitor

Clean screen to minimize glare and increase

character sharpness

Tip: To clean a VDT screen wipe it very lightly every day with a damp, not wet, paper towel.

• Monitor Placement

Test for excessive glare when tilting the monitor. A report suggests the perfect placement of monitor should be at least 20-40 inches from the head level .

Tip: If you can see your own image in the screen before it is turned on, reflections and indirect glare from the screen will strain your eyes.

REFERENCES

Aswathappa.K, Book on Human Resource Management.

D.C. Smith, M. Bruyns, S. Evans, (2011) "A project manager's optimism and stress management and IT project success", *International Journal of Managing Projects in Business*, Vol. 4 Iss: 1, pp.10 - 27.

D.Cenzo, Book on Human Resource Management.

Diane L. Velasquez (2010), Impact of technology on organizational change in public libraries: a qualitative study, in Williams Delmus E., Golden Janine (ed.) 29 (*Advances in Library Administration and Organization*, Volume 29), Emerald Group Publishing Limited, pp.107-183

Dr. Jeffrey Anshel, B.S, O.D, Founder of Corporate Vision Consulting, Carlsbad(California).

Elizabeth R. Towell, Joachim Lauer, "Personality Differences and Computer Related Stress in Business Students", *American Journal of Business*, Vol. 16 Iss: 1, pp.69 - 76

Glaucoma (2004) linked to Heavy Computer Use, *Journal of Epidemiology and Community Health*, December 2004; vol 58: pp 1021-1027.

India Today, dated on September 8,2003: section written by author Stephen David "Terminal Illness", Bangalore.

Michael P. O'Driscoll, Paula Brough, Carolyn Timms, Sukanlaya Sawang (2010), Engagement with information and communication technology and psychological well-being, in Pamela L. Perrewé, Daniel C. Ganster (ed.) *New Developments in Theoretical and Conceptual Approaches to Job Stress (Research in Occupational Stress and Well-being, Volume 8)*, Emerald Group Publishing Limited, pp.269-316.

COST OF CAPITAL AND DECISION MAKING

Dr. P. K. Srivastava*
Dr. (Smt) Sangeeta Srivastava**

Table of Contents

- Abstract
- Classification of Cost
- Components of Cost of Capital
- Cost of Capital in Decision Making
- Conclusion
- References

ABSTRACT

Cost of capital represents the rate of return which the company must pay to the suppliers of capital for use of their funds. It is the minimum rate of return that a project must yield to keep the value of the enterprise intact. The significance of this concept can be stated in terms of the contribution it makes towards the achievement of the objective of maximization of the wealth of shareholders. The objective of this paper is to highlight the different aspect of cost of capital and emphasize the importance of this concept in present business era. Analytical research method is adopted for this purpose where newspapers comments views and reviews by noted authorities apart from standard books on this topic have also been consulted and analyzed to arrive at concrete conclusion which envisage that investment decisions which are irreversible and involves huge funds should be taken after considering cost of capital apart from other aspects then only the financial policy will provide healthy platform to the stakeholders of the company.

Cost of capital is the minimum required rate of return a project must earn in order to cover the cost of raising fund being used by the firm in financing of the proposal. It may be defined in two phase i.e. operational term and economic term. In the first, it refers to the discount rate that would be used in determining the present value of the estimated future cash proceeds and eventually deciding whether the project is worth undertaking or not. Economic term further divided into two categories. In the first cost of capital is the cost of acquiring the fund required to finance the proposed project i.e. the borrowing rate of the firm. In term of

lending rate it refers to the opportunity cost of the funds to the firm i.e. what the firm could have earned by investing fund elsewhere. In both cases cost of capital connotes rate of return prevailing in the market and anybody seeking capital from the market will have to promise to pay this rate to the suppliers or anyone investing funds will receive return at the same rate.

CLASSIFICATION OF COST

The various concepts of cost of capital are not relevant for all-purpose of decision-making. Therefore for a proper understanding of the application of the cost of capital in financial decision-making various concept of cost should be distinguished. These concepts are -

Future Cost and Historical Cost

Future cost of capital refers to the expected cost of funds to be raised to finance a project while historical cost represents cost incurred in the past in acquiring fund. In financial decision future cost of capital is relatively more relevant and significant while evaluating viability of a project historical cost is taken into consideration.

Component Cost and Composite Cost

Cost of each component of capital such as equity, debenture and preference share etc. is known as component or specific cost of capital. When these component costs are combined to determine the overall cost of capital it is regarded as composite, or combined or weighted cost of capital. For capital budgeting decision composite cost of capital is relatively more relevant even though the firm may finance one proposal with only one source of funds and another proposal with another source.

Average Cost and Marginal Cost

Average cost of capital is the weightage average of the cost of each component of funds employed by the firm, while the marginal cost of capital is the average cost of new or incremental funds raised by the firm. For capital budgeting and most financing decisions marginal cost of capital is more important.

*Associate Professor, Faculty of Commerce & Business Administration, S. D. (PG) College, Muzaffarnagar

**Associate Professor, Teachers's Education Department, D. A. V. (PG) College, Muzaffarnagar (UP)

Explicit Cost and Implicit Cost

Explicit cost of capital of any source is the discount rate that equates the present value of each inflow that is incremental to the taking of the financing opportunity with present value of its incremental cash inflows. It arises when the firm considers alternative uses of the funds raised. Implicit cost is the rate of return associated with the best investment opportunity for the firm and its shareholders that will be forgone if the project presently under consideration by the firm were accepted. It may also be viewed, as opportunity cost.

FACTORS AFFECTING COST OF CAPITAL

The elements in the business environment that cause a company's cost of capital to be high or low determine the cost of capital of any firm. These factors are:

General Economic Conditions

The general economic conditions determine the demand for and supply of capital within the economy as well as the level of expected inflation. This economic variable is reflected in the risk less rate of return. This rate represents the rate of return on risk free investments such as the interest rate on short-term government securities. In principle as the demand for money in the economy changes relative to the supply investors change their required rate of return.

Risk and Cost of Capital

High-risk investments only make the investors attractive to purchase the security. The risk elements are composed of five aspects that are closely intertwined. These are -

- (a) Financial Risk- refers to the proportion of debt and equity with which a firm is financed.
- (b) Business Risk- refers to the variability in return of assets and is affected by the company's investment decision.
- (c) Purchasing Power Risk- refers to the change in purchasing power of money measured by price level changes.
- (d) Money Rate Risk- refers to the premium in the yield demanded by suppliers of capital to cover the risk of an increase in future interest rate.
- (e) Market/Liquidity Risk- refers to the ability of a supplier of fund to sell his holding quickly.

Floating Cost

Floating cost is the cost of marketing new securities. It includes legal fees, printing expenses,

underwriting commission etc. They are called floating because they incurred in floating new securities. It is also called underwriting cost or issuance cost. These costs directly influence the cost of capital. High floating cost leads to higher cost of capital.

COMPONENTS OF COST OF CAPITAL

The overall cost of capital of a firm is comprised of the cost of the various components of financing, techniques to determine the specific cost of each of these sources such as debt, preference share, retained earning, and equity share. The measurement of cost of capital is the process of determines the cost of fund to the firm. Once the cost has been determined, it is in the light of this cost that the capital budgeting proposal should be evaluated. It is merely an estimation of the firm's true cost of capital. The finance manager must calculate this estimate as precisely as possible. If there is a mistake in the determination of cost of capital then the investment decision as well as other decisions may be taken wrongly and thus ultimately affecting the profitability and survival of the firm. The method of measuring cost of capital of different components is given as under: -

COST OF DEBENTURES AND BONDS

The cost of capital for debenture/bond is the return that potential investors require of the firm debt securities. For calculation we can divide the debenture into two categories i.e. Perpetual Debt and Redeemable Debt.

Perpetual Debt

The debenture availed by the firm on a regular basis is called perpetual debt. The cost of capital of such type of debt may be ascertained as under: -

$$K_i = \frac{I}{B_o}$$

Where -

K_i = Cost of debenture capital (Before Tax)

I = Annual interest

B_o = Net proceeds (IP-F)

IP = Issuing price of debenture

F = Floating cost or cost of raising fund

Tax Adjustment

Interest on debenture is tax deductible. It works as a tax shield and the tax liability of a firm is reduced. Thus the effective cost of debenture is lower than the interest paid to investor but it depends on tax rate. The real cost of capital is determined after considering

the tax shield as follows: -

$$K_d = K_i (1-t)$$

Where -

K_d = Cost of debenture capital (after tax)

T = tax rate

The tax benefit is not available, to firms having loss or no tax-paying situation. In this condition K_d will be equal to K_i .

Redeemable Debenture

To calculate the cost of capital of redeemable debenture, it can be divided into two categories such as (a) If redemption is made after a certain period (b) If redemption is made gradually in installment.

(a) If redemption is made after a certain period

$$K_i = I + \frac{R_v - B_o}{\frac{R_v + B_o}{2}} \times 100$$

Where: -

R_v = Redemption value of debenture

N = Life of Debenture

(a) If there is annual amortisation of redemption of debenture

$$B_o = \sum_{i=1}^n \frac{I_i(1-t)}{(1+K_d)^i} + \frac{COP}{(1+K_d)^i} + \frac{COP_n}{(1+K_d)^n}$$

Where: -

COP = Regular cash outflow on account of amortisation

Convertible Debenture (CD)

When the company issues convertible debentures then the face value of CD are fully or partially converted into equity shares as per the term of issue of CD. In case of partially CD the company will be required to pay interest on the residual amount and this residual amount redeemed at the end of the given period. It will be calculated through the following equation: -

$$B_o = \sum_{i=1}^n \left(\frac{I(1-t)}{(1+k_d)^i} + \frac{mP_c b}{(1+K_d)^c} + \frac{RV}{(1+K_d)^n} \right)$$

Where: -

I = Annual Interest

t = Tax Rate

m = No. of shares issued at the time of conversion

P_c = Price per share at conversion time

C = Conversion time

R_v = Redemption value

B = Proportion of market price, if the share were issued

COST OF CAPITAL OF PREFERENCE SHARE

It represents the rate of return that must be earned on the preferred stock financed investments to keep earning available to the residual stockholders unchanged. It is of two types i.e. redeemable and irredeemable. Redeemable preferred stock mature at the stipulated time while irredeemable never mature. It is a perpetual security, which provides permanent capital to the company.

Irredeemable Preference Shares

$$K_r = \left(\frac{DP}{MP} + G \right) (1-T)(1-B)$$

Where: -

PD = Annual Preference dividend

P_o = Net Pro

Redeemable Preference Shares

If the preference shares are redeemable at the end of a specific period than the cost of capital can be calculated through the following equation: -

$$P_o = \sum_{i=1}^n \frac{PD_1}{(1+Kp)^i} + \frac{P_n}{(1+KP)^n}$$

Where: -

P_n = Amount payable at the time of redemption

n = Redemption period of preference shares

*The above calculation of KP should be adjusted in the light of the current tax provision.

COST OF EQUITY CAPITAL

It is generally argued that the equity capital is free of cost. But it is not true: The reason behind this argument is that there is no legal binding on company to pay dividend to equity shareholders. The return to the equity shareholders solely depends upon the discretion of the company management. Apart from the absence of any definite commitment to receive dividend, the equity shareholders rank at the bottom as claimants on the assets of the company at the time of liquidation. But apart from all this argument like other sources equity share capital certainly involves a loss. The objective of management is to maximize shareholders wealth and the maximization of market price of share is the operational substitute of wealth maximization. Therefore the required rate of return,

which equates the present value of the expected dividends with the market value of shares, is the equity capital. The cost of equity capital may be defined as "The minimum, rate of return that a firm must earn on the equity-finance portion of an investment project in order to leave unchanged the market price of the shares". Thus the expected rate of return in equity share is just equal to the required rate of return of investors. The measurement of this expected rate of return is the measurement of cost of equity share capital. This can be calculated as follows: -

$$K_e = \frac{DP}{MP}$$

Where: -

Ke = Cost of capital of equity

MP = Market Price per share

DP = Dividend per share

In case of Dividend Growth Rate it is

$$K_e = \frac{DP}{MP} + G$$

Where: -

G = Annual Growth Rate of dividend

Earning Price Approach

$$K_e = \frac{EPS}{MPS}$$

Where: -

EPS = Earning per share

Cost of Newly Issued Equity Share

$$K_n = \frac{DP}{NP}$$

Where: -

$$K_n = \frac{DP}{NP} + G$$

NP = Net Proceeds from fresh issue

EARNING PER SHARE

In a joint stock company, equity shareholders bear the greatest risk. Preference shareholders enjoy a preference over the equity shareholders both in the payment of dividend and return of capital. However, they are entitled to a fixed rate of dividend even when the company earns profits at a very high rate. High profitability of the company's business benefits the equity shareholders only. The performance of the company will be judged by the equity shareholders on the basis of the return on the equity capital of the company. It is worked out as under: -

$$\frac{\text{Profit available to equity shareholders}}{\text{No. of equity shares}}$$

The Council of Institute of Chartered Accountants of India has issued Accounting Standard (AS) 20, 'Earning Per Share'. It is effective in respect of accounting periods commencing on or after 1-04-2001 and is mandatory in nature. According to it, an enterprise should show basic and diluted earnings per share in its income statement for each class of its equity shares. If a company has issued convertible debentures or convertible preferences shares, it will also be required to calculate diluted earnings per share. These are calculated as under: -

$$\text{Basic Earning Per Share} = \frac{\text{Net Profit / Loss available for equity shareholders}}{\text{Weighted Average of Number of equity shares}}$$

$$\text{Diluted Earning Per Share} = \frac{\text{Net Profit / Loss available for equity shareholders}}{\text{Weighted Average of Number of shares after adjusting the dilutive potential equity shares}}$$

COST OF EQUITY SHARE CAPITAL UNDER CAPITAL ASSET PRICE METHOD (CAPM)

CAPM is an alternative method to measure the cost of equity share capital other than the dividend method (which has been discussed above), which is directly based on risk consideration. Risk is the variability of returns inherent in the type of security while return defined as total economic return obtained from it. Under this method total risk associated with the security can be divided into unsystematic and systematic. The former refers to that risk which can be eliminated by diversification while later affect the firms at a particular point of time which cannot be eliminated viz. political uncertainties, government policies etc. They are also known as diversifiable and non-diversifiable risk. Under this method the cost of equity share capital is calculated with some limitation. Calculation of cost of equity share capital under this method is given as under: -

$$K_e = I_f + B(k_m - I_f)$$

Where:

I_f = Risk free interest rate

B = the beta factor (measure of non-diversifiable risk)

k_m = The expected cost of capital of the market portfolio

This method is not always able to account for the difference in assets' return using betas. This paved way for the development of another alternative approach name Arbitrage Pricing Model (APM) for estimating the assets' expected returns.

COST OF RETAINED EARNING

If the entire earning is not distributed and the firm retains a part then these retained earnings are available within the firm. Companies are not required to pay any dividend on retained earnings, so it is generally observed that this source of finance is cost free, but it is not true. If earnings were not retained, they would have been paid out to the ordinary shareholders as dividend. This dividend forgone by the equity shareholders is opportunity cost. The firm has required to earn on retained earnings at least equal to the rate that would have been earned by the shareholders if they were distributed to them. So the cost of retained earning may be defined as opportunity cost in term of dividends forgone by withholding from the equity shareholders. This cost can be calculated as under: -

$$K_r = \left(\frac{DP}{MP} + G \right) (1 - T)(1 - B)$$

Where: -

K_r = Cost of capital of retained earning

T = Shareholders personal tax rate

B = Brokerage cost

WEIGHTED AVERAGE COST OF CAPITAL

In order to evaluate a capital expenditure project, overall or average cost of capital is required. The overall cost of capital is the rate of return that must be earned by the firm in order to satisfy the requirements of different investors. It is the minimum rate of return on the asset of the firm, so it is preferably calculated as weighted average rather than the simple average. Weights being the proportion of each source of funds in the capital structure. It is given through historical, target or marginal proportion. Historical weights are based on the firm's existing capital structure. It is of two types i.e. Book value weight and market value weight. The weight is said to the book value weight if the proportions of different sources are ascertained on the basis of the face values i.e. the accounting value, if the weights are given according to the proportion of each source at its market value (market price of the securities), is called market value weight. Target weight are based upon the proportion of the various type of capital the firm wishes to maintain whereas marginal weights consider the actual proportions of each type of capital expected to be used in financing a given project.

MARGINAL COST OF CAPITAL

The above concepts will be applicable only

when the firm's total financing and its pattern of financing is given and other things remain constant but practically any investment proposal may require funds to be realised from new internal or external sources and increase the total funds also. This cost of capital of additional funds is called the marginal cost of capital. If this additional fund collected from more than one sources i.e. combination of debt and preference share capital, the weighted average cost of capital of the new financing is called Weighted Marginal Cost of Capital (WMCC).

IMPORTANCE OF COST OF CAPITAL IN DECISION MAKING

The cost of capital is critically important in finance. It plays a crucial role in the capital budgeting decision. This concept is however, a recent development and has relevance in almost every financial decision making but prior to that development, the problem was by-passed. The progressive management always takes notice of the cost of capital while taking a financial decision. The concept is quite relevant in the managerial decisions as (a) It may be used as the measuring rod for adopting an investment proposal. The firm, naturally, will choose the project which gives a satisfactory return on investment which would in no case be less than the cost of capital incurred for its financing. In various methods of capital budgeting, cost of capital is the key factor in deciding the project out of various proposals pending before the management. It measures the financial performance and determines the acceptability all investment opportunities. (b) It is significant in designing the firm's capital structure. The cost of capital is influenced by the chances in capital structure. A capable financial executive always keeps an eye on capital market fluctuations and tries to achieve the sound and economical capital structure for the firm. He may try to substitute the various methods of finance in an attempt to minimize the cost of capital so as to increase the market price and the earning per share. (c) A capable financial executive must have knowledge of the fluctuations in the capital market and should analyze the rate of interest on loans and normal dividend rates in the market from time to time. Whenever company requires additional finance, he may have a better choice of the source of finance which bears the minimum cost of capital. Although cost of capital is an important factor in such decisions, but equally important are the consideration of relating control and of avoiding risk. (d) It can be used to evaluate the financial performance of the top executives. Evaluation of the financial performance will involve a comparison of actual profitabilities of the projects and taken with

the projected overall cost of capital and an appraisal of the actual cost incurred in raising the required fund (e) It is also of vital importance in regulated industries, including electric, gas, telephone, railroad, airline and trucking companies. In essence, a regulatory commission seeks to measure a utility cost of capital then taxes prices so that the company will just earn adequate rate of return. If the estimates are too low, then the company will not be able to attract sufficient capital to meet long-run demand for service, and the public will suffer. If this estimate is too high customer will pay too much for service. (f) It is also important in many others areas of decision making, such as dividend decisions, working capital policy etc.

CONCLUSION

Every company in its normal course of business at some point of time requires funds for its operations, expansion, acquisition, modernizations and replacement of long-term assets. The company obtains funds through different sources. Every company's objective is to maximize the shareholder's wealth through its investment projects. Investors are generally risk-averse and demand a premium for bearing risk. The greater the risk of an investment opportunity, the greater would be the risk-premium required by the investors. While making an investment decision, the company has to take into account the returns expected by the investors, as they provide the money to the corporate. Under these conditions investment decisions become crucial to the company because they are irreversible; having a long-term implication and involve huge amount of funds. A progressive management should take cost of capital into consideration while taking any financial decision then only the financial policy will prove a healthy financial policy.

REFERENCES

- Agarwal, J. D., Readings in Financial Management, IIF Publication.
- Bhalla, V.K. : Financial Management and Policy (Text and Cases) 2002, Anmol publication, New Delhi.
- Bierman, Harold and Smidt, Seymour, Capital Budgeting Decision, Collier.
- Brigham, F. E. : Fundamentals of Financial Management, (Ed. II), The Dryden Press Hinsdole, Iliinols.
- Chandra, Prasanna : Financial Management (Theory and Practice)1997, Tata McGraw- Hill Publishing Company Ltd. New Delhi.

Haley, Schal, :Introduction to Financial Management, Tata McGraw Hill, New Delhi.

Hampton, John J., Financial Decision Making, Prentice Hall of India, New Delhi.

Khan, M.Y. : Financial Services, (1998), Tata McGraw-Hill Publishing Company Ltd., New Delhi.

Maheshwari S. N., Financial Management, Principles & Practice, Sultan Chand & Sons, New Delhi.

Mao, James C. T., Quantitative Analysis of Financial Decisions, Macmillan New Delhi.

Pandey, I.M. : Essentials of Financial Management (1999) Vikas Publishing House Pvt. Ltd, New Delhi.

Ratnam. P.V. : Rathnam's Financial Management - Theory, problems and Solutions, (1997) Kitab Mahal, Allahabad.

Rustagi, R.P. : Principles of Financial Management,2003, Galgotia Publishing Company New Delhi.

Shashi K. Gupta and R. K. Sharma, Financial Management - Theory and Practice, Kalyani Publication, New Delhi.

Srivastava, R.M. : Financial Management and Policy,(2005), Himalaya Publishing House, Mumbai.

Van Horne, James C., Financial Management and Policy, Prentice Hall of India, New Delhi.

Gurukul Business Review: Published by Faculty of Management Studies (FMS) Gurukul Kangri University, Haridwar (UK)

BPLR TO BASE RATE- A NEW ERA IN BANK LENDING IN INDIA

Dr. Suresh Chandra Bihari*

Table of Contents

- Abstract
- Deregulation of Lending Rates and BPLR
- Base Rate and its Benefits
- Impact of Base Rate System
- Impact of Base Rate on Bank's Profitability
- International Best Practice
- References

ABSTRACT

Banks in India tend to charge their biggest corporate borrowers less than published prime rates, which they would no longer be able to do now on new loans. The RBI has expressed concern over banks offering short-term loans well below their prime rates to companies and mortgage borrowers. The actual lending rate charged to borrowers would be the base rate plus borrower-specific charges including operating costs, according to the new guidelines by the RBI implemented from 1st July 2010. After the implementation of the new loan pricing system, existing borrowers would continue to pay at existing rates, while the base rate would apply to new customers. The new base rate system is intended to allow cuts in interest rates by banks to be passed on to all customers rather than a few large corporate clients. It would also check aggressive lending to clients in sectors such as real estate, which are prone to bubbles.

DEREGULATION OF LENDING RATES & BPLR

With the objective of providing credit to the productive sectors of the economy, bank lending rates as well as the allocation of bank credit were closely regulated by the Reserve Bank till the late 1980s. Furthermore, there were a number of sector-specific, programme-specific and purpose-specific credit stipulations. With the initiation of financial sector reforms in the early 1990s, various steps were taken to deregulate the lending rates of commercial banks. First, the credit limit size classes of scheduled commercial banks, on which administered rates were

prescribed, were compressed into three slabs in April 1993. Second, a system of prime lending rate (PLR), the rate charged for the prime borrowers of the bank, was introduced in October 1994. The PLR system went through several modifications from a single PLR to multiple PLRs and then to a Benchmark PLR (BPLR) (Table1)¹.

Another important development during this time was the introduction of a "loan system" of delivery of bank credit in April 1995. The objective was to bring about greater discipline in the utilization of bank credit. Furthermore, the Reserve Bank relaxed the requirement of PLR being the floor rate for loans above Rs.2 lakh. Thus, in April 2001, commercial banks were allowed to lend at sub-PLR rates for loans above Rs.2 lakh. However, the divergence in PLRs and the widening of spreads for borrowers continued to persist. The PLRs turned out to be rigid and inflexible in relation to the overall direction of interest rates in the economy. In order to address these issues, a BPLR system was introduced in April 2003.

Need for Paradigm Shift

Downward stickiness in rates: RBI has observed that whenever RBI raises policy rates and reserve ratios, banks are quick to increase their loan rates. But, when RBI reduces policy rates and reserve ratios, banks respond very slowly effecting decreased lending rates with a considerable time lag. Such a phenomenon is called downward stickiness in rates. RBI is of the view that it is adversely impacting the monetary transmission mechanism in the banking system.

Due to competition, banks have been offering loans to first class borrowers with high credit rating at rates much below the BPLR in a non-transparent manner. RBI opines that banks' lending at sub-BPLR rates is not in tune with the central bank's objective of bringing transparency to the loan rates. BPLR has fallen short of RBI's expectations to work as a reference rate or benchmark rate.

¹ Mohanty, Deepak (2010). Perspectives on Lending rates in India, Banker's Club Kolkata.

*Professor (Banking & Finance) IBS, Hyderabad, India

This is how the BPLR started losing its significance as the reference rate. Several requests were received by the Reserve Bank of India from banks suggesting a review of the BPLR system.

Keeping the above in mind, RBI had set up, in April 2009, a committee under the chairmanship of Deepak Mohanty to look into the existing BPLR system and suggest a suitable alternative system for pricing bank loans. The Deepak Mohanty Committee's recommendations were made public in October 2009, which suggested shifting from the current BPLR to a new system called Base Rate System. After getting feedback from banks and other stakeholders, RBI had issued its Final Guidelines on April 9, 2010. A committee published the report in October 2009 looking at the BPLR's evolution and flaws¹.

The important recommendations are-

The concept of BPLR is outdated and is out of sync with the present market conditions and it should be replaced with a new Base Rate System.

Base Rate would be based on one-year card rate on deposits, loss incurred by banks for SLR/CRR, overhead cost and average return on net worth.

The actual rate charged to borrowers would be Base Rate increased by operating costs, credit risk premium, tenor premium and others. Banks should not lend below the Base Rate, except in a few cases.

At present, the Government administers loans of up to Rs 2 lakh to small borrowers, under priority sector & others. These administered rates shall be discontinued and these loans can be brought under the Base Rate system.

Table 1: Evolution of Lending Rate Structure in India

Sept. 1990	The structure of lending rate was rationalized into six size-wise slabs. Of these, banks were free to set interest rates on loans over Rs. 2 lakh with minimum lending rate prescribed by RBI.
April 1992	Slabs compressed into four.
April 1993	Slabs compressed into three.
Oct. 1994	Lending rates for loans with credit limits of over Rs. 2 lakh deregulated. Banks were required to declare their Prime Lending Rates (PLRs).
Feb. 1997	Banks were allowed to prescribe separate PLRs and spreads over PLRs, both for loan and cash components.
Oct. 1997	For term loan of three years and above, separate Prime Term Lending Rates (PTLRs) were required to be announced by banks.
April 1998	PLR converted as a ceiling rate on loans up to Rs. 2 lakh.
April 1999	Tenor Linked Prime Lending Rates (TPLRs) introduced.
Oct. 1999	Banks were given flexibility to charge interest rates without reference to the PLR in respect of certain categories of loans/credit.
April 2000	Banks were allowed to charge fixed/floating rate on their lending for credit limit of over Rs. 2 lakh.
April 2001	The PLR ceased to be the floor rate for loans above Rs. 2 lakh. Banks were allowed to lend at sub-PLR rate for loans above Rs. 2 lakh.
April 2002	Dissemination of range of interest rates through the Reserve Bank's website was introduced.
April 2003	Benchmark Prime Lending Rate (BPLR) introduced and tenor-linked PLRs discontinued.
Feb. 2010	Draft circular on Base Rate placed on RBI website for obtaining comments/suggestions from public/stakeholders.
April 2010	Announcement of Base Rate System of loan pricing will be implemented from 1st July 2010.

¹ <http://www.rbi.org.in/Scripts/PublicationReportDetails.aspx?UrlPage=&ID=571>

After getting feedback from banks and public, RBI had issued the final guidelines on Base Rate System on April 9, 2010 (RBI circular dated April 9, 2010).

BASE RATE

The Base Rate system replaced the BPLR system with effect from July 1, 2010. Base Rate includes all those elements of the lending rates that are common across all categories of borrowers. Banks may choose any benchmark to arrive at the Base Rate for a specific tenor that may be disclosed transparently. Banks are free to use any other methodology, as considered appropriate, provided it is consistent and are made available for supervisory review/scrutiny, as and when required.

Banks may determine their actual lending rates on loans and advances with reference to the Base Rate and by including such other customer specific charges as considered appropriate.

In order to give banks some time to stabilize the system of Base Rate calculation, banks are permitted to change the benchmark and methodology any time during the initial six month period i.e. end-December 2010.

The actual lending rates charged may be transparent and consistent and be made available for supervisory review/scrutiny, as and when required.

Applicability of Base Rate

All categories of loans should henceforth be priced only with reference to the Base Rate. However, the following categories of loans could be priced without reference to the Base Rate: (a) DRI advances (b) loans to banks' own employees (c) loans to banks' depositors against their own deposits.

The Base Rate could also serve as the reference benchmark rate for floating rate loan products, apart from external market benchmark rates. The floating interest rate based on external benchmarks should, however, be equal to or above the Base Rate at the time of sanction or renewal.

Changes in the Base Rate shall be applicable in respect of all existing loans linked to the Base Rate, in a transparent and non-discriminatory manner.

Since the Base Rate will be the minimum rate for all loans, banks are not permitted to resort to any lending below the Base Rate. Accordingly, the current stipulation of BPLR as the ceiling rate for loans up to Rs. 2 lakh stands withdrawn. It is expected that the above deregulation of lending rate will increase the credit

flow to small borrowers at reasonable rate and direct bank finance will provide effective competition to other forms of high cost credit.

Review of Base Rate

Banks are required to review the Base Rate at least once in a quarter with the approval of the Board or the Asset Liability Management Committees (ALCOs) as per the bank's practice. Since transparency in the pricing of lending products has been a key objective, banks are required to exhibit the information on their Base Rate at all branches and also on their websites. Changes in the Base Rate should also be conveyed to the general public from time to time through appropriate channels. Banks are required to provide information on the actual minimum and maximum lending rates to the Reserve Bank on a quarterly basis, as hitherto.

Transitional issues in migration from BPLR to Base Rate

The Base Rate system would be applicable for all new loans and for those old loans that come up for renewal. Existing loans based on the BPLR system may run till their maturity. In case existing borrowers want to switch to the new system, before expiry of the existing contracts, an option may be given to them, on mutually agreed terms. Banks, however, should not charge any

BENEFITS OF THE BASE RATE

One biggest benefit with the Base Rate System as cited by policymakers and experts is that it will help the Reserve Bank of India to transmit the changes in policy rates (Repo and Reverse Repo under LAF) in a better manner.

To the Economy

The introduction of the base rate system along side removal of interest rate ceiling on small loans and freeing of rupee export credit interest rate brings to fruition over two decades of efforts to deregulate the lending rates of banks. This is expected to enhance the allocating efficiency of the financial intermediation process by banks.

Deregulation of lending rate will promote financial inclusion with greater credit flow to agriculture and small business. This, together with other specific measures taken by the Reserve Bank for financial inclusion, will draw borrowers away from the informal financial sector to the formal financial sector and thus, facilitate credit penetration.

To the Banks

The base rate system gives complete freedom to banks in their loan pricing decisions while ensuring transparency. Banks have unlimited access to public deposits and privileged access to the liquidity facility of the Reserve Bank. Hence there is a greater need for transparency and responsible lending practices for public purposes.

The base rates of banks will mirror their relative efficiency and cost structure. While lending rates tend to be sticky, it is expected that the base rate system will show greater flexibility and strengthen both the interest rate and credit channels of monetary transmission.

The new system gives the freedom to banks to choose other market related benchmarks besides their base rates for pricing floating rate products. This could promote development of market benchmarks. It could also deepen the money market to facilitate short-term liquidity management by banks.

To the Borrowers

There is some apprehension that the base rate system may raise the effective cost of borrowings. This is unlikely because corporates have access to multiple sources of funds and hence the effective borrowing rates will be determined by market competition.

Small and Medium enterprises would be able to negotiate a good rate for themselves. As the base rate of all the banks would be publicly available, companies will be able to compare the rates charged by banks; hence the skill to negotiate will have a greater role to play.

IMPACT OF BASE RATE SYSTEM

Retail Borrowings (An example of Home Loan)

Home Loan- The Base Rate regime will have minimal impact on the fixed rate home loan customer apart from the fact that at the time of signing up for the loan he will know the bank's Base Rate and the associated spread. The greater transparency will help him in taking a more informed decision. Otherwise, he will service his loan on the same rate of interest for the remaining tenor.

The impact of the Base Rate will be clearly understood by the floating rate customer. A revision in the interest rates (upward/downward) will impact the Base Rate, the spread remaining constant and the final lending rate to the consumer will change by the

amount of increase/decrease in the Base Rate. Say for e.g. the interest rate was 10% at the time of signing up for the loan (Base Rate: 8% + other charges 2%). Say the Base Rate changes by 50 bps due to an upward swing in the deposit rates which means now the new interest rate will be 10.5% for the customer (Base Rate 8.5% + other charges 2%). A similar computation if the rates have a downward swing. Since banks have to revise the base rate every quarter, any change in interest rate – either downwards or upwards – would be passed on to you in a maximum of 3 months. This will address issues of “downward stickiness” of rates in case of the BPLR regime.

For an Existing Borrower- If a borrower already has a loan which is based on the BPLR system there will be no change in the EMI payable. He can continue to service his loan till its maturity under the BPLR system. However if he wishes, he can shift his existing loan to the new Base Rate system at no additional cost before the expiry of your loan. If an existing borrower and wishes to take any top-up loan then the new loan interest rate will be based on the new “Base Rate” system.

While the Base Rate will have a very nominal difference across banks, the primary variable differentiating customers will be the spread which factors in the credit profile of the consumer. Therefore having a good credit profile will help you get better rates.

The new system ushers in greater transparency. This will also mean an end to the teaser home loan campaigns launched since banks can no longer lend below their Base Rate. Effects of new base rate regime on other types of retail loans like Auto loan, Consumer loan etc. can similarly be understand.

Corporate Borrowings

While an upward pressure on rates for corporates availing of at ultra-low rate is imminent, the retail, priority and SME companies will most-likely be able to get a relatively lower rate. Needless to mention, irrespective of the category, borrowers with better credit rating will be able to negotiate a good deal for themselves.

IMPACT OF BASE RATE ON BANK'S PROFITABILITY¹

Short Term Lending

Introduction of the base rate mechanism will enhance competition in the short-term lending space. Issuance volumes in the debt capital markets are also

¹ Mitu Samar, July 1, 2010. Base rate introduction unlikely to pressurize bank profitability: CRISIL (Press Release)

likely to increase as the highly rated corporates begin to shift towards these markets. Banks with competitive base rates and efficient treasury operations are well placed to benefit from the new scenario. However, competitive pressures are unlikely to impact the overall profitability of the banking system materially. The base rate system is also expected to enable banks to respond more efficiently to monetary policy measures. The base rate for public sector banks is in the range of 7.5 per cent to 8.25 per cent, while that for private sector and foreign banks is lower — by 50-100 basis points (bps). The large private sector banks with more competitive base rates are, therefore, now relatively better placed to garner market share in the short-term corporate lending space. However, public sector banks with superior treasury operations can partially offset competitive pressures in the short-term lending segment by subscribing to the debt market issuances of corporates.

Long Term Lending

In the long-term lending space, however, a material shift in market share is unlikely. However, corporates with strong credit risk profiles and high ratings will be better placed than other players to negotiate rates with the banks. "Ratings may become strong differentiators for corporates over the near to medium term.

Effect on Interest Spreads- Despite the expected increase in competition in the short-term lending space, implementation of the base rate system is unlikely to have a significant impact on banks' interest spreads. Because Banks have flexibility to control other loan-pricing elements, including tenor and credit risk premiums, and product-specific operating costs. This will provide the banks with some cushion to protect their interest spreads.

As per a survey conducted by FICCI²

Most banks feel that the base rate will be governed by the liquidity conditions in the market and each bank's cost of raising funds. They are expected to expand their fee-based income business to negate the adverse impact on banks' bottom line. They would also pursue more low-cost borrowings. Some respondents also foresee an aggressive treasury operations and levying of service charges to cancel any negative impact arising out of squeeze in profitability as banks could end up paying more to depositors without a corresponding increase in their earnings once base rate is implemented.

Bankers were unanimous in their view of CASA heavy banks having an advantage in the new regime. Higher proportion of CASA in total deposit would certainly offer more flexibility in maintaining a relatively lower base rate and hence will also play a decisive role in improving margins.

Public sector banks will have an edge over private sector banks in offering a more competitive rate as they have a larger deposit base which gives them access to cheaper sources of stable financing. Public sector banks have access to the government/treasury funds and thereby their cost of fund works out to be lower than private sector banks.

Regime Requires Some Fine Tuning

Reserve Bank of India (RBI) need to further fine tune base rate regime so that level playing field is also created for all stakeholders in money market and make sure that borrowers are able to access funds with fair, equitable and effective delivery mechanism. Still there are few areas which can be improved.

The base rate does not cover the fixed interest rate segment, presently under the benchmark prime-lending rate (BPLR) segment.

It also does not cover as to how long existing BPLR system will continue, creating incongruity in existing as well as new borrowers.

Banking industry has re-structured and re-habilitated a large number of viable units where concessional rates or even the funding of over-dues have been considered at substantially low rates of interest as enshrined in respective re-habilitation policies of banks. The present base rate regime is totally silent and would hit this portfolio and borrowers perceptively.

The purpose of base rate has been to transmit monetary policy action swiftly and adequately. Currently, the base rates are proposed to be reset every quarter irrespective of time and tenure of monetary policy instances of RBI. There needs to be parity in timelines. There should be similar timelines in addition to banks own policy for resetting the base rate. This will ensure monetary policy transmission without gap.

The present base rate also makes no mention of it's applicability on non-banking financial companies (NBFCs), Regional Rural Banks (RRBs) and Co-operative Banks which continue to have different set of guidelines, heavily loaded against the borrowers.

²FICCI Survey on Base rate implementation-June10.http://www.ficci.com/SEDocument/20059FICCI_SURVEY_ON_BASE_RATE_IMPLEMENTATION.pdf

The government is the biggest borrower in the market and is often responsible for interest rate swings. The base rate does not appear to cover the government borrowings in the sense that these borrowings are related to the prevailing coupon rates for various government securities or various maturities. The role played by the government while making huge amount of borrowings influences interest rates and base rate regime clarity is needed in this regard.

The present arrangement of banks for funding against letter of credit (LCs) and bill discount which invariably is at substantially reduced rate due to guaranteed payments will be severely affected and therefore, needs to be addressed on priority.

INTERNATIONAL BEST PRACTICE

Prime rate or prime lending rate is a term applied in many countries to a reference rate of interest used by banks. The term originally indicated the rate of interest at which banks lent to favored customers, i.e., those with high credibility, though this is no longer always the case.

United States & Canada

Historically, in North America, the prime rate

Table 2: Comparison of Base Rate & BPLR of major commercial banks

No	Name of the Bank	Base Rate (PA)	BPLR (PA)	BPLR As on Date
1	Deutsche Bank	6.75%	12.75	March-10
2	HDFC Bank	7.25%	15.75	July-10
3	Kotak Mahindra Bank	7.25%	15.5	January-09
4	ICICI Bank	7.50%	15.75	May-09
5	State Bank of India	7.50%	13.5	January-08
6	Corporation Bank	7.75%	12	January-09
7	State Bank Of Bikaner and Jaipur	7.75%	12.25	June-09
8	State Bank of Mysore	7.75%	12.25	August-10
9	Bank of Baroda	8%	12	January-09
10	Canara Bank	8%	12	January-09
11	Central Bank of India	8%	12	January-09
12	Punjab National Bank	8%	11	May-10
13	Uco Bank	8%	12.25	August-10
14	Union Bank	8%	11.75	January-09
15	South Indian Bank	8.10%	16	January-08
16	J&K Bank	8.25%	14.5	January-08
17	Karur Vysya Bank	8.50%	13.5	July-10
18	Karnataka Bank	8.75%	13.75	November-09

was the actual interest rate although this is no longer the case. The prime rate varies little among banks, and adjustments are generally made by banks at the same time, although this does not happen with frequency. The prime rate is currently 3.25% in the United States. Canadian prime rate is currently 2.75%.

In the United States, the prime rate runs approximately 300 bps (or 3 percentage points) above the fed fund rate the interest rate that banks charge to each other for overnight loans made to fulfill reserve funding requirements: (federal funds rate) + (3 %) = (prime rate). The Federal funds rate plus a much smaller increment is frequently used for lending to the most creditworthy borrowers, as is LIBOR, FOMC meets eight times per year wherein they set a target for the federal funds rate. Other rates, including the prime rate, derive from this base rate.

The prime rate is used often as an index in calculating rate changes to adjustable rate mortgages (ARM) and other rates on short term loans. It is used in the calculation of some private loans given to students. Many personal with variable interest rates have their rate specified as the prime rate (index) plus a fixed value commonly called the spread or margin.

REFERENCES

Mohanty, Deepak (2010). Perspectives on Lending rates in India, Banker's Club Kolkata.

Mitu Samar, July 1, 2010. Base rate introduction unlikely to pressurize bank profitability: CRISIL (Press Release).

Reserve Bank of India, (RBI/2009-10/390DBOD. No. Dir. BC 88 /13.03.00/2009-10).

FICCI Survey on Base rate implementation - June 2010.

http://www.iba.org.in/viewplr.asp?memcatid=4http://www.moneycontrol.com/news/economy/a-glance-at-base-rateallbanks_467161.html.

RURAL MARKETING- EXPLORING NEW POSSIBILITIES IN THE RURAL INDIA

Dr. Sunil Shukla*
Dr. Neena Tandon**

Table of Contents

- Abstract
- Introduction
- Role of IT in Developing Rural Markets
- Conclusion
- References

ABSTRACT

Rural India is going to become a biggest market of the world in the near future and it is transforming like anything. Rural marketing as an emerging trend is about to explore possibilities in the rural India. It is a process to hunt a treasure Iceland, yet to be hunted by the adventurous explorers. It is not simply a marketing to just sell and deliver consumers satisfaction but something else certainly. It is a visit to the 75 crores people residing in the villages of India where they have hope, aspirations, needs and potential. They too have money and will to spend the same, which is more important. Because of change in the rural market environment, its market profile is changing and people are changing themselves. Ultimately, their needs and requirements are also changing. At this point of juncture companies are rushing with their product portfolio to satisfy the needs of rural consumers. The companies are applying several models and strategies to be winner in the rural market. It is also great fallacy that those who have not seen rural India, they are making and shaping rural strategy to win the hearts of rural India.

Key Words: Kisan Credit Cards, Haryali Bazars, Caupal Sagar, e-Chaupals, Tenant farmers, Share Croppers, Shahukars, Haats, Mandies, Melas, NABARD etc.

INTRODUCTION

The Indian economy has seen consistent overall growth in recent years. The agriculture reforms in the Tenth Plan, easy availability of agriculture credit, facility of Kisan Credit Cards, Rs. 60,000 crores village road program, introduced to connect nearly 1.9 lakh

villages, and improved communication network gave a huge fillip to the rural economy and income, resulting in higher penetration as well as increased consumption rate. The purchasing power of the rural communities has grown significantly has come into focus and is understandably much sought after for its potential.

Rural marketing has become a fad to market products in the rural India for the small, medium and big established companies. But it is beyond that. Rural marketing is a process of developing, pricing, promoting and distributing rural specific goods and services leading to exchanges between urban and rural markets which satisfies consumer demand and also achieve organisational objectives. (Ram Krishna, 2002, pg-10). But very often, rural marketing is confused with agriculture marketing – the latter denotes marketing of produce of the rural areas to the urban consumers or industrial consumers. Where as rural marketing involves delivery of manufactured products or processed inputs or services to rural consumers. The Indian rural market with its vast size and demand base offers great opportunities to companies. Two- third of the Indian population lives in rural areas and almost one third of the national income is generated here. It is only natural that rural markets form a critical part of the total markets in India.

According to the National Council of Applied Economic Research (NCAER), with about 74 percent of its population living in its villages, India has perhaps the largest potential rural market in the world. It has as many as 47,000 haats, compared 35,000 super markets in the US. In addition to this, of the total FMCG's demand in India, nearly 53 percent comes from the rural market. For consumer durables, the figure is 59 percent. Nearly 700 million Indian live in 6,38,365 villages across India. Connectivity of village complexes providing economic opportunities to all segments of people is an urgent need. This is where the fortunes of India's biggest corporations are likely to be saved.

What Makes Rural Attractive?

It is the spread of population in rural areas that is offering huge potential to relating industry. Six

*Asst. Professor, Dr. Gaur Hari Singhania Institute of Management & Research, Kamla Nagar, Kanpur

**Associate Professor, PPN Degree College, Kanpur

out of ten people live in the villages. According to NCAER study, there are almost twice as many “lower middle income” households in rural India as in the urban areas.

- At the highest income level, there are 2.3 million urban households as against 1.6 million households in rural areas.
- Middle and high income households in rural India were expected to grow from 111 million by 2007.
- In urban India, the same was expected to grow from 46 million to 59 million.

Recently, rural employment guarantee scheme worked wonders in the rural India. The new government is applauded with the success of NREGA scheme and is likely to earmark Rs.30,000 crores for the scheme in FY 09. (1). The government ensuring employment to 4.47 crore families and creating 215 crores person-days during the past three years are big achievements for the rural people. (2). The projects worth 27 lakhs, have already been taken up, out of which projects worth 12 lakhs, are completed. (3). These projects have also increased rural income and have become a big factor for the companies to rush for the rural call. NREGA has also injected confidence in the rural people. The opening of bank account is making many rural poor confident. They are saving money now. Also, the life insurance and health insurance products have gained ground among them. (4).

Thus the number of middle and high income households in rural India would be many fold as compared to urban India.

The market increase in the rural income is due to agrarian prosperity. There is large inflow of investment for rural development programs from government and other sources.

There is increasing contact of rural people with their urban counterparts due to development of transport and wide communication network. The literary education levels have increased among rural folks, and as a result there is an inclination to lead sophisticated lives. Changes in land tenure system have also resulted in structural changes in the ownership pattern and consequent changes in the buying behaviour of rural population. (5).

Thus a large population, rising farm incomes and inspiring infrastructure has translated great opportunities with a sizeable rural presence. Some impressive facts about the rural sector are-

- The number of rural super markets (Haats in India),

47000 exceeds the total number of retail chain stores in the US (35000).

- LIC sold 55 percent of its policies in rural India.
- Of the BSNL mobile phone connection 50 percent are in rural.
- 24 million Kisan Credit Cards (KCC) issued in rural areas exceeds the 17.7 million credit cards plus debit cards issued in urban India. A whopping Rs. 52,000 crores has been sanctioned under KCC scheme.
- The number of middle and higher income families (having Rs. 70,000 plus annual income) in rural (21 million) and urban (24.2 million) is nearly the same.
- Of the million who have signed up for Rediffmail, 60 percent are from small towns. Of the lakhs who transact on Rediff online shopping site, 50 percent are from small towns.
- Mobile banking offers an opportunity for banks to reach out to the rural population and doing business in rural areas has become more viable. The global market for mobile based transactions, still in its infancy in India, is projected to be worth more than \$ 500 billion by 2011. It will foster the expansion of banks' business as well as it will cut various costs. (6)
- An Assocham report on rural consumption says that in three years the per capita income in rural areas will double. Considering that rural households form 72 per cent of the total, the rural market roughly comprises 720 million customers. (7).

Rural Road- a caselet of Hero Honda

The largest bike maker in the world, Hero Honda, is searching for more roads to trudge on. The Gurgaon based two-wheeler major, has decided to venture into the largest untapped market in Asia – rural India. While FMCG brands have tested fair amount of success in their foray, it will be interesting to see how customers respond to the biker. Disposable income, aspiration and ever green need to show off does look promising for the bike manufacturer. While on the subject, the person heading the venture did admit that Indian auto market is unique in more ways than one. No other market in the world has bikes made especially for women, a distinction that India has. Clearly, there are many more chapters of the India story still to be written.(8).

Rural Marketing Environment and Segmentation

Rural marketing is basically a focussed marketing activity of an organisation. The environment outlines threats and opportunities of the market. The rural marketing environment is complex and changing continuously. The marketing organisation has to foresee and adopt strategies for the changing requirements of the market. One, which does not change, will perish.

The economic independence matters in the villages and it covers social and political factors, which is very important. In this regard, Kisan Credit Cards issued by National Bank for Rural Development (Nabard) is playing and bringing drastic change in the villages i.e. social up-liftment by economic empowerment. The Kisan Credit Cards scheme of Nabard is becoming an effective tool to fight the existence of sahuikars and other informal sources of credit for farmers. During 2008-09, the number of KCC issued by these banks was almost 16,000 and cumulative term loan issued was Rs, 587cr. KCC aims at meeting the entire credit needs of farmers through a whole farm approach. It covers farmers' production, investment and consumption needs. Under KCC scheme, the credit is available at a rate of 7 percent. All farmers, including oral lessees, tenant farmers, and share croppers, can avail credit facilities under KCC. Under the KCC scheme, any number of withdrawals and payments within the sanctioned credit limit are allowed to the borrower. The card is valid for 3/5 years subjects to annual review by the financing bank. KCC also covers personal accident insurance cover up to Rs. 50,000 to cover accidental death / permanent disability. (10).

The value creation and delivery consists of segmentation, targeting, positioning and delivery of satisfaction are the essence of strategic marketing.

Segmentation is the process of defining and breaking a heterogeneous market homogenous sub-markets having different tastes, preferences, finance, capabilities etc. It is a process and to help in the analysing market opportunities. Segments are broadly designed on the basis of geography of the market, includes states, regions, districts, population density, climate etc. Demographics encompass gender, age, income, occupation, religion, education, singles, marital status, family size etc. Psychographics cover the social class, life style and personality and behavioural aspects include occasions, benefits sought, loyalty status, place and product possession.

Sadly, not many companies had invested sufficient money in research or time in the field to understand rural consumers- their values, aspirations, needs, usage habits. Marketing is all about 'knowing

your customers', but companies which have largely not ignored this cardinal principle, have eluded corporate in rural markets. In the past most senior executives would rather set through the periodic marketing workshop in five star hotels than deal with the heat and the dust of the market place. Today, more than ever before, industry associations and corporate boards are looking at setting new agendas that combine wealth creation with deeper rural social change.

Understanding rural consumers, distributors and promotions

Rural customers are fundamentally different from their urban counterparts, and different rural geographies display considerable heterogeneity, calling for rural- specific strategies. Companies that have taken the trouble to understand rural markets have tasted success. As per market research conducted by Arvind Mills- Even the cheapest branded jeans were beyond the reach of rural males, also there was skepticism toward ready made. So, Arvind introduced a ready -to- stitch Ruff and Tuff jeans kit at Rs.195. Distribution was a critical issue. The product was made available in local retail outlets in a population of up to 5000. Village tailors were trained and provided with additional machine accessories required. In the first two months, demand crossed a million pieces and within 18 months, 5 million kits were sold. Other recent success, such as "Tiger" biscuits from Britannia, "Sampoorna" TV from LG or A1 tea from HLL should convince us that many more treasures await marketers who dare to dream rural.

Rural distribution is considered as nightmare because of 6 lakhs odd villages in the country. Where do consumers buy? Taking durables, 90 percent is purchased from 20,000 plus population towns totally 2300 only. The situation with FMCG's is more complex but not in surmountable. Direct supply to the 20,000-plus population feeder towns should be quite sufficient, as each distributor in turn would have a supply network of 100 plus outlets in 50 odd locations which can cover all villages up to 2000 plus population category. These 85,000 larger villages are home to 40 percent of the rural population but over 60 percent of rural consumption.

In the areas of communication, corporate marketers have perhaps failed to recognise that a rural consumer may be buying a particular brand or even the product category itself for the first time. With hardly any key influence within the village and few sources of information, the rural consumer feels inhibited and ill equipped to buy confidently. Hence, there is a strong

need to build reassurance and trust about product quality service support and company credentials in the mind of rural consumers. This is best done through the face –to –face and touch, feel and talk mode at haats, melas and mandies.

Rural people have evolved these systems of selling and communicating that have served them well for centuries. Corporate marketers have now started using these platforms effectively. Take haat, there are 47000 of them that mushroom week after week, each catering to the daily needs of 10 to 20 villages. Haats serving as sales outlets will serve as both sales outlets and redistribution points as village shopkeepers also frequently visit them after replenishing their stocks.

Similarly, from the list of 25000 melas in India, mostly religious, 1000s are larger and more commercial in nature frequented by hundreds of thousands of visitors and they are being targeted for the brand promotions. The 7000 mandies are also good platforms for promoting high end durable besides agri input products.

The army of mobile traders that go from house to house in rural India to sell a varying of FMCGs could be motivated, so that at least some could be converted to sell genuine company brands. All these are high involvement, touch and demo-channels that offer a great possibility of convincing ill informed consumers lacking confidence to buy.

Again, we have this fundamental question whether, the rural consumer is aware of the products; if yes, can he afford them? To answer these some of the largest MNCs like HLL and LG Electronics have established strong network in the rural areas.

“Sachet” revolution has indeed changed the dynamics of rural market. Many companies are coming out with “small pack – lower price” packaging and pricing of their product, to make them affordable to rural consumers. For example, HLL introduced Lifebuoy Soap for Rs.2/- and Coca Cola came out with an idea of returnable 200ml. glass bottle for Rs.5/- for rural market. They are developing special creatives, aimed at homogenous rural segments and these may be quite different from urban market communication approaches.

ROLE OF IT IN DEVELOPING RURAL MARKETS

With the cost of technology coming down day by day, several companies are attempting to create virtual bazaars or agri- portals akin to weekly mandies. The most notable virtual mandies are the e-chaupal by ITC, India Agriline by EID Parry and Dairy Portal by

Amul.

ITC's e-Caupal initiative has already reached 30 lakhs families of India and by 2010, it hopes to reach 10 million farmers. It is 5050 e-Chaupals and home ushered in a revolution of sorts in the six states of India serving integrated needs of 3 million farmers. Where the core activity is to tell the farmer the price at which ITC will buy Soya, Coffee, Fish and wheat on that day. It is a winning model as both ITC and the farmers make neat savings by passing the middlemen in the physical mandi. The same kiosks are now being used for reverse trading also for the companies to sell products and services needed by farmers directly. In the coming years, more and more companies are going to take IT route to make the rural markets more accessible and thus should open up new business opportunities.

Bharat Strategy: an attempt to win Rural India- a Case Let

Two major telecom companies of the country, Reliance Communications and Idea Cellular entered into two unusual partnership – Krishak Bharati Cooperatives Ltd. and the department of Posts. While Kribhco's 25,000 co-operatives will market RCom's telecom products and services, the post offices in Kerala will sell Idea's specially designed stamp sized recharge vouchers.

A few months earlier, Airtel entered into a joint venture with the Indian Farmers Fertilizers Co-operatives Ltd. (Iffco) to offer specifically designed products and services. The target consumers are the 55 million farmers under Iffco's fold. Airtel has already enrolled over 60,000 farmers under this scheme.

Mobile phone manufacturer Nokia, which had earlier launched a basic handset with a torch and a alarm clock, has now gone a step further with Nokia Life Tools – a range of agriculture, education and entertainment services designed especially for consumers in small towns and rural areas. The life tools provide basic information on weather, mandi prices and crops.

The efforts of Indian telecom companies to woo Bharat have finally started bearing fruits. Airtel gets more than half of its new subscribers from rural and semi urban areas. Similarly with Vodafone – Essar (50 percent), Idea Cellular (56 percent) and Reliance Communications (50 percent). The Indian telecom sector adds an average 10 million subscribers every month, of which rural areas account for over five million. And Nokia sells over 1.6 million phones yearly in rural

areas.

As per an Assocham Report on rural consumption, in three years the per capita income in rural areas will double. Considering that rural households form 72 per cent of the total, the rural market roughly comprises 720 million customers. The Indian telecom market woke up to the potential about three years ago and the moves are paying off now. Airtel's president, Atul Bindal said, the company was finally seeing its rural strategy yielding handsome results. Apart from the tie- up with Iffco, the company has set up Airtel Services Centres in rural areas to provide services and handle customer queries and complaints, eliminating the need of call centres. The company has also tied up with Nokia to launch an educational initiative in order to give rural users a live experience on mobility services, that include hands on training on making the first phone call and sending SMS with localised content.

But still selling phones in the rural areas is not a easy job. It is not easy to convince and sell products and services. Idea Cellular Managing Director Sanjeeva Aga agreed. "Providing telecom services in rural India is not an easy affair. Companies have to overcome many constraints, like electricity (causing infrastructural issues) and topographical and logistic (distribution) issues, among others. Moreover, rural India's income is dependent on harvest, monsoon and many other factors. The companies have hardly any option, as metros and major cities are saturated. The immediate benefits are low and would initially drain the operators' overall revenues, rural markets are lucrative in the long run. Look at the FMCG industry, where most of the majors are now focusing on rural areas. (11).

Large format retail stores

The retail revolution in India has encouraged a few corporate to venture into the rural sector with large format agri-stores.

Going paces ahead of small packs and sachets, the corporate world is now coming out with "Rural Malls". Chaupal Sagar is one of the first organised retail effort in the rural area. This is a venture by ITC. It extended its warehouse into rural shopping-cum-information centre to attend the needs of rural consumers. The size of the mall is very small with just around 7000sq. ft. as compared to ordinary mall sizes in urban area. But it still offers everything- from toothpaste to television, hair oils to motor cycles, mixer grinders to water pumps, shirts to fertilizers, whatever a rural consumer needs. ITC started its first rural mall

in Sehore, Madya Pradesh and is planning to expand its network by another 40 shopping malls across rural Madya Pradesh and Uttar Pradesh, to increase its rural outlets all over India to 700 by 2013.

Following in the footsteps of ITC, DCM Sriram Consolidated Ltd. (DSCL) opened Haryali Bazaars in 2002 focussing mainly on agri-products. These bazaars offer:

- Quality Agri- Inputs
- Financial Services
- Farm Output Services
- Other Product and Services

So far, 70 Haryali stores have been set up in different states across India, which will be scaled upto 200-250 in the next year or two. Ranbaxy's Fortis Health World is tying up with Haryali Kissan Bazaar to enter the rural market.

Hindustan Lever followed another way of reaching rural consumers. Its Project Shakti (rural self help group) is a classic example of involving women in the distribution network through empowering women. The project started in 2000, encourages women to sell products and they operate like direct to home sales women. A typical Shakti distributor sells products worth Rs.10,000- 15,000 (around \$250) a month, which provides an income of Rs. 700- 1000 (around \$ 25) a month on a sustainable basis. This business model has created history in the Indian rural marketing. According to media reports, Shakti distributors now account for 15 percent of the company's sales in rural India.

Among its latest plans, HLL is involving non-competing brands/ companies to be part of its project. For example, HLL has approached ICICI Prudential and Max New York Life to sell their insurance policies through its Shakti dealers. Godrej Agrovet Ltd., is another company, which has initiated its rural retail business through "Godrej Aadhar". These outlets offer rural households, the basic food, grocery, apparel, footwear, furniture, kitchen ware, and home appliances, value added services and pharmacy. Godrej is planning to set up at least 1000 stores across the rural India in the next five years.

Even Indian Oil is planning to tap the rural market by opening Kisan Seva Kendras across the rural areas to provide fuel and non-fuel services to rural consumers. Taking a cue from the corporate world, even the government is thinking big for rural areas. The government of Madhya Pradesh proposes to develop Rural Shopping Malls (RSMs) across the state

to cater to the needs of rural population. The RSMs will act as two way supply chain. While selling goods to the farmers, these malls will also buy their farm produce. Raw materials and finished goods are traded under one roof.

Challenges in Rural Markets

The rural markets are full of challenges because of its characteristics like illiteracy, distances, vast markets potential, communication, rail and road transportation, distribution of products and services, understanding consumer behaviour, socio- cultural factors, languages, lack of infrastructural facilities etc. The rural market is so wide and vast that it is difficult to cover and reach. One segment is totally from other segments. Every district, region and state is different from others. The whole India is different in itself and even then it is an ideal example of a country having different cultures. It is incredible India.

Knowing Rural India is a very difficult task, its spirit, feelings, warmness, distinctness, shyness, innocence and beyond that. If marketing / sales men try to cheat them, they feel disgusting and try to make distance from these people. Next most important point is that marketing men still don't know real needs of rural consumers. Designing wrong products, services and poor strategy without knowing rural India where their own consumer in the villages lives. It is also difficult to get skilled sales person conversant with rural culture. Though, marketing heads are educated from abroad and top institutions of the country but poor in knowing their consumer. There is gap in their knowledge what they know and what is in the reality about rural consumers. That is why products are getting failures in rural markets.

CONCLUSION

An income dispersal projection by NCAER based on a 7 percent GDP growth (assumption) shows that the number of poor households will shrink by half to 28 million from 61 million, where as the middle income households will double and rich households will treble over the decade in rural India. This upward push, taking rural people from poverty to prosperity, will lead to increasing purchasing power.

Today's non-consumers comprising the rural poor will enter the market as the first time buyers in large numbers. Getting a larger share of the growing rural pie, will call for a radical shift in management thinking, from gross margin to high profit, from high value unit sales to a game of high volumes, capital efficiency and from the one-solution-fits-all mentality

to market innovation. Companies are taking specific initiatives to succeed in the dynamic rural market.

The CEOs are articulating a strong commitment to rural market and the marketing team is giving focussed attention and sustained support to this growing market segment. Further, rural marketing is being treated as separate area of work, the way export market is. The more researches are being conducted to understand rural consumers better and generate more reliable data on the rural sector. Language and regional behaviour variation, is being considered in developing rural communication strategy. The next big marketing revolution in the world is going to happen in the rural India and corporate are getting ready for it.

REFERENCES

- Abbot, C. John- Agricultural Marketing Enterprises for the Developing World, Cambridge University Press.
- Agadi and Parmashivesh, 1997, pg-5.
- Business World, 2nd May, 2005.
- Kurup Rajesh S, Bharat Strategy paying off for telcos, Business Standard, Lucknow, 27/7/09, p-2.
- Marketing Mastermind, April 2002.
- Praxis, Hindu, July 2003
- Press Trust of India, ND, Business Standard, Lucknow, 27/7/09.
- Rawat, Virendra Singh, Kisan Credit Card Scheme takes on Sahukars in UP, Business Standards, Lucknow, 2/7/09)
- Rural Road, Speeding Up, The Economic Times, Lucknow, 4th January, 2010, p-4.
- Sharma, Shantanu Nandan, Truly Rural, the Economic Times, Lucknow, 25th may, 2009, p-18.
- Shukla, Rajesh, Perspectives, See Rural Consumers in their Rich Variety, The Economic Times, Lucknow, 30th November, 2009, p-13.
- The Smart Investor, Business Standard, 16th Feb, 2009.

BRAND YOGA – BRAND INDIA

Dr. Vinay Sharma*
Ravindra Singh Tomar **
Piyush Seth***

Table of Contents

- Abstract
- Introduction
- Yoga as an Alternative to Western Medicine
- Conclusion
- References

ABSTRACT

The paper projects the age old inherent brand equity of India for yoga led health and spiritual tourism. Yoga itself being a brand in the field of curative and preventive health care is synonymous with India. Looking at the wider acceptance as well as real life applications of yoga as a science through strong referral examples this paper proposes for further synchronized development of Brand Yoga in coherence with Brand India and capitalization of the same.

Keywords: Brand Equity, Yoga, India, Health, Brand Yoga

INTRODUCTION

The paper refers to the yoga led health and spiritual tourism is the age old inherent brand equity of India. The word “Yoga” came from the Sanskrit word “yuj” which means “to unite or integrate.” Yoga then is about the union of a person’s own perception and the universal perception. Yoga is a system of physical, mental and spiritual development which originated in India at least 3,000 years ago and has been practiced by rishis, swamis, and aged yogis, but more recently has spread to the western world. The Atman or “Self” desires to merge with the Paramatman, or “God Self”. Yoga aims to merge these two fractured states of being. The paper approaches with the proposition that wider acceptance as well as real life applications of yoga as science is synchronized development of brand yoga in coherence with brand India.

Yogic Sciences

Yoga an ancient science and philosophy together is differentiated into two segments Hatha- Yoga and Raja yoga. Hatha Yoga techniques or kriyas are

scientifically proven as a cure for many ailments and for preventing oneself from old age symptoms for some more years of ones life. Raja Yoga focuses on consciousness, that energy which makes our heart beats and our senses to act; it is a transcendental state cultivating the abilities such as clairvoyance, telepathy, healing, transferring energies and more. Raja Yoga is believed but yet to be proven scientifically.

A Himalayan yogi Swami Rama performed such super natural acts. Swami Rama shot in to fame when he went to United States and gave a demonstration of his yogic powers subjecting himself at Menninger foundation research institute (Topeka, Kansas USA) on biochemical energies or biofeedback. He moved the needles kept 10 feet away by just looking at them. He had stopped the heart for 16 seconds and the doctors supervising the experiment was horrified at seeing ECG and shouted to Swami Rama to stop the experiment. (Swami Rama actually wanted to stop the heart for 15 minutes and he asked for two days time for yogic preparation and fasting, but that project was cancelled because the testing specialist doctor said that he would be satisfied if any one could stop the heart for six seconds).

YOGA AS AN ALTERNATIVE TO WESTERN MEDICINE

Yoga is an ancient science which brings about perfect health, physical and mental, while also aiming to fulfill the human potential. Yoga enables us to gain control of the nervous system and to control the production of chemicals in the body, thereby allowing us to manipulate our internal environment. By utilizing the awareness and control that yoga brings about, one is able to overcome ailments and diseases of many kinds.

It is important to remember that yoga is indeed a science, and is not a religion or a renunciation of religion. Yoga is also not simply a physical exercise, which is another common misconception. Yoga is a system of balancing and harmonizing the different aspects of the being, including the consciousness,

*Assistant Professor, Department of Management Studies, Indian Institute of Technology, Roorkee.

**Yogacharya, Department of Human Consciousness & Yogic Sciences, Gurukula Kangri Vishwavidyalaya, Haridwar

***Lecturer, Management Department, Sahara Arts and Management Academy, Lucknow.

the body, the mind, and the emotional and spiritual elements. As far as medical treatment is concerned, it must be acknowledged that modern science is valuable, and that yoga can be used in conjunction with other scientifically sound medical treatments and remedies whenever appropriate.

As far as scientific studies and trials of yoga are concerned, too few have been completed to conclusively prove the effectiveness of yoga as a medical treatment for most conditions. However, despite this need for statistical proof, it is clear that yoga is beneficial to all aspects of health, and there are numerous examples of patients being effectively treated and cured with yoga, just usually not as part of a controlled, large-scale scientific study. Basically, scientific research has been conducted on yoga's effectiveness in the treatment of some medical conditions, but we are still in need of more statistical evidence and evaluation. Still, there are some areas where the evidence is plentiful.

Numerous scientific studies have clearly documented the effectiveness of Yoga for the treatment and prevention of stress. Any effective treatment for stress is, of course, also effective in managing stress-related diseases such as hypertension and heart disease, cardiac arrhythmias, and many cardio-pulmonary and cardio-vascular diseases. For these conditions, Yoga has been conclusively shown to offer effective treatments. Additionally, Yoga offers a wealth of help for those suffering from asthma, those recovering from stroke (when the stroke is not so severe as to greatly impair the awareness of the patient), and even for those battling cancer. When it comes to cancer, yoga should be practiced as a way to possibly extend the life and, most importantly, improve the quality of life with a sense of strength, optimism and peacefulness. There is evidence that suggests yoga might be useful even in the cure of cancer. Many spontaneous remissions of cancers have occurred when patients practiced intensive meditation. Meditation is, of course, a fundamental part of yoga. No doubts are remaining about Yoga's impact on digestive health either. It is widely accepted that the practice of yoga can be used not only as a way of maintaining the health of the gastro-intestinal tract, but also as a way to remedy disorders of the digestive system. These include, but are not limited to, constipation, hemorrhoids, colitis, gastro-enteritis, indigestion, and ulcers.

Another area of medicine where yoga can be applied is in the recovery from sports injuries or other traumatic injuries to the musculo-skeletal system.

There have been many instances of people undergoing physical therapy treatment for years, yet still having pain, stiffness and immobility of the joints. After practicing yoga for several months, these same patients were often completely healed, mobile and free of pain and suffering. Respiratory illnesses, such as bronchitis, hay fever, asthma, sinusitis, and eosinophilia (a condition that is somewhat like a combination of asthma and bronchitis) can also be cured, or at least managed, with the regular practice of yoga. Yoga is not only an effective treatment for many illnesses and injuries, but can indeed be legitimately viewed as a superior treatment than any of those offered by western medicine when it comes to certain health problems. Particularly note-worthy are those related to mental health. To be fair, for severe forms of mental illness, such as schizophrenia or other extreme psychosis, anti-psychotic drugs may be the best option. However, the vast majority of people in the western world who seek treatment for mental health problems are diagnosed with relatively minor psycho-emotional disorders such as various forms of depression and phobias, post-traumatic stress disorder, bi-polar disorder, and a whole range of other similar disorders. In these cases, Yoga is in every observable way a better treatment choice than modern medicine.

The reason is that in western medicine, psycho-emotional disorders are generally treated with a combination of psycho-therapy, counseling, and anti-depressant drugs. Psycho-therapy might or might not be entirely beneficial to a given patient, but anti-depressant medications always have some negative side-effects, and often they do little more than mask the underlying conditions that they are meant to treat. It is often the case that patients are switched from one anti-depressant to another over a period that spans years, all as part of the quest to find the "right" anti-depressant for that particular patient. This occurs because patients need to be on a given drug for at least 6 months simply to determine whether it is having the desired effect or not. While anti-depressants are apparently turning out to be a failure, they are the best thing western medicine has to offer, which is the main reason they are still being prescribed at all. On the other hand, although less well-known, Yoga offers a complete cure for these kinds of psycho-emotional mental illnesses that so many westerners are currently suffering from.

Through a combination of practices, including Pranayam, Meditation, Asanas, etc., Yoga brings about the total natural balance that is intrinsic to a healthy human being. As children, naturally we are all

healthy and happy, but through the course of one's life there are inevitable stresses and traumatic events which contribute to the development of one's outlook. In many cases, with the accumulation of negative experiences, people become unhappy with life or with themselves, and occasionally this leads to chronic or persistent mental health disorders such as those mentioned already. Instead of trying to mask unhappy feelings with medications or regular visits to the therapist, Yoga enables a person to come to a level of peace and bliss that originates from within, and is not dependent on an outside source. Yoga is the connection of our consciousness with the supreme consciousness that is everywhere. Yoga cultivates absolute awareness so that a person knows himself or herself well enough to be in control of his or her own health and contentment entirely. All sorts of ill-health conditions, particularly mental health issues, simply vanish. In view of the fact that Yoga is an all around better, and therefore more desirable treatment for the most common forms of mental illness, it could prove valuable to consider the size, if not simply the existence, of the potential market.

This aspect if further is corroborated with the statistics available on the patients and prospective patients around the world will establish the immense need of the objective of this paper i.e. Branding India for Health and Spiritual Tourism.

This is a market worth tapping into, and Yoga is the perfect tool to do that with. Furthermore, considering that India is the birthplace of Yoga, it should be assumed that there can be no better place to market Yoga than from India.

But this is just an example. The whole medical industry of the west comprises a huge part of the western economy and there are billions upon billions of dollars in it, and yoga is as valuable and marketable an alternative for the previously mentioned physical medical conditions as it is for the mental health illnesses.

While it is true that yoga can be used as a treatment or a method of managing numerous ailments and diseases, it should be noted that it is more effective as a preventative medicine than as a medical treatment.

Medical Tourism and Yoga's Appeal to Westerners

This fact is corroborated by the unpublished data, in the form of first hand observation of 2 of the authors at Rishikesh, Uttarakhand wherein several prominent ashrams, like Parmartha Niketan which also conducts annual yoga week, Sachcha Dham Asharam,

Swami Dayanand Saraswati Ashram, Phool ki Chatti, Rishikesh, Patanjali Yoga Peeth, Haridwar conduct regular training camps for trainers, practitioners as well as patients. These ashrams can be referred through the website of Garhwal Mandal Vikas Nigam Limited, the official tourism development department of the state of Uttarakhand, (<http://www.gmvnl.com/newgmvnl/>) along with websites like <http://www.pypt.org/> the official website for Patanjali Yoga Peeth a very large and internationally acclaimed organization working for the effective and efficient usage of Yogic Sciences.

THE MODEL

This paper put forward a proposition with a modular logic based on the premise of '*Capitalization of Age Old Treasures of Yogic Sciences and replication of this Art*', which suggests that Business strategies and marketing skills have been concentrating on the aspects of Health Care Tourism as it emerged coincidentally because of emerging Human Resource and the needed infrastructure in India, but Yogic Sciences on the other side lies in the roots of this country and primarily requires synchronization of resources and appropriate positioning apart from the related spiritual aspect, it has to be projected in relation to a science related to prevention as well as cure. The paper is suggestive of the following major aspects:

- a) The 'Size' of the market as well as the large resource pool in terms of Human Resource and the data.
- b) Technology can play an extensive and a very positive role in the Health Care provision and disbursement through Yogic Sciences.
- c) This should also be seen as a social responsibility by the marketer along with being seen as a business opportunity.

The Model (Appendix)

- a) At first, the paper proposes to look at the factors of enhancing the efficiency levels of the present system, and for this it proposes the utilization of Information Technology not just for enhancing the working efficiency of the system, but basically for developing and enhancing the awareness levels of the prospective beneficiaries in terms of gains and of the Yogic Sciences practitioners in terms of the beneficiaries they may approach or approached by.
- b) Secondly, it supports a proposition, which is a strategic marketing based structure. Though this structure uses marketing based principles and logic as its basis, but still depends heavily on the

'will' of the prospective promoters of the concept. This is the initial most step called as *"The strategic marketing for competitive advantage, the expansion of the market and the services as well"*. It emphasizes on the unification of the strategic resource based services in a pool in relation to providing health care through Yogic Sciences.

Both the preceding two steps can later well be utilized in increasing the investor confidence, especially the multinational company's, who would be the basic carriers of the success of the model, proposed through steps 3, 4 and 5.

CONCLUSION

'Health is Wealth' is an age old proverb and has an immense relevance when translated in to the productivity of nations and its impact on the overall societal harmony of this world. It is time for the researchers, practitioners, policy makers, marketers especially in the field of tourism development to realize the aspect and capitalize upon the health needs of the people from whole of the world and compliment tourism with Yoga led experience related to preventive and curative health care. The natural reason not only lies in the command and the expertise India has and can boast of in the field of Yogic Sciences but also is related to the cost effectiveness it may offer along with the

replicative effect it may offer as practically is experienced by one of the authors of this paper who not only is learning Yoga here but will also benefit many others back at California and several parts of her country.

REFERENCES

Coulter David H, 2006, *Anatomy of Hatha Yoga, A Manual for students teachers and practitioners*, Motilal Baanarasi Das, New Delhi.

Dr. Nagaratna R. and Dr. Nagaendra H.R., 2004, *Yoga for Back Pain*, Yog Publication Trust, Ganga Darshan, Muger Bihar.

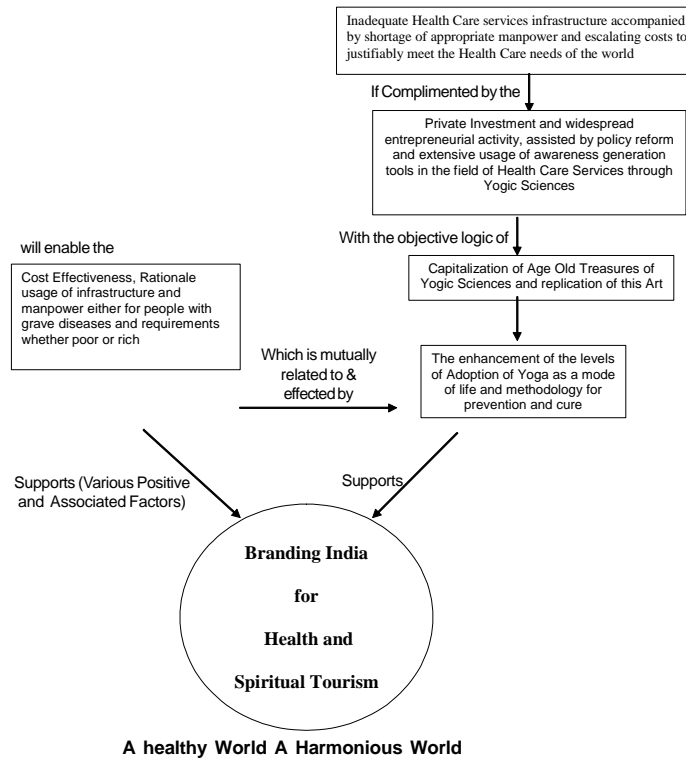
Dr. Nagaratna R. and Dr. Nagaendra H.R. 2006, *Yoga for Bronchial Asthma*, Yog Publication Trust, Ganga Darshan, Muger Bihar.

Dr.Swami Karmananda, 2005, *Yogic Management of Common Diseases*, Yog Publication Trust, Ganga Darshan, Muger Bihar.

Dr. Vivekananda, Rishi, 2006, *Practical Yoga Psychology*, Yog Publication Trust, Ganga Darshan, Muger Bihar.

Udupa K.N., 2007, *Stress and its Management by Yoga*, published by Motilal Banarasi Das, New Delhi.

APPENDIX
Propositions for Yoga led Tourism
Pictorial Demonstration No.1



Pictorial Demonstration No.2

The Model

Capitalization of Age Old Treasures of Yogic Sciences and replication of this Art

