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Measuring Research-strength of an Institute

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Introduction:

Like the available measures on 'relative research-strength' of any individual researcher or of any journal (such as 'impact-factor'), research community also look with interest for some 'relative score/ position' of Universities, Institutes and research organizations. This is computed by taking 'total research publications of the institute/ university' into consideration. There are many initiatives/ agencies doing this job. We shall present here the scores of 'Research-Gate' and the relative position of the leading institutes in India and Asia.

The research-network, **ResearchGate** [https://www.researchgate.net] is fast catching up the attention of most of the researchers of the world, today. It is the 'the social networking site for scientists and researchers to share papers, ask and answer questions and find collaborators', that was co-founded by **Ijad Madisch**[1] in 2008. The company is now based in Berlin and has offices in Cambridge. This startup was developed as a communication and crowd sourcing platform by which scientists can share and publish their research. "About 56 percent of research papers published in 2013 included an author that is on ResearchGate. From 2008 to 2011, 1.4 million papers were added to the profiles of scientists on ResearchGate. Now, this network is seeing 1.4 million papers added each month, with 27 million papers uploaded in total. And much of the collaborative power is in sharing the raw data between scientists. Every two days, 1,300 data sets are uploaded. The engagement is just growing exponentially."

Research Scores & Impact points:

ResearchGate has its formula/ algorithm of calculating RG-Score[2], Impact-points, Citations etc. Though the formula or the algorithm can always be debated, but when we want to compare and see the relative position of any institution or University, the **total score** (of all its members) can be taken as a good measure. Of course one can argue and question, whether an Institution/ University has actually been correctly represented in ResearchGate! Many good researchers might not have opted, so far, for this network. Hwever, now there are thousands of Institution/ University, listed/ featured in ResearchGate. We shall have a look at the relative position of the 'world-leaders'.

Present Comparative Status:

If we look at the scores, as discussed above, we can find the following statistics on those Institutes/ Universities, who are relatively more 'active' and 'visible' in research.

As on **Dt.25.02.2014,** we find the number of leading Institutes/ Universities of the world, as per the latest **RG-Score:**

Number of Institutes/ Universities with total RG score >15000= 267
Number of Institutes/ Universities with total RG score >10,000 = 428
Number of Institutes/ Universities with total RG score >5000 = 793
Number of Institutes/ Universities with total RG score >1000 = 2630

As we find from the above statistics, hardly **800** Institution/ Universities are there having scores above 5000. Yes, of course it is actually NOT the actual final/ total score of that Institution/ University (as many scholars might not have uploaded their work).

When we look at the leaders list (as on 25.02.2014), we can have it separately as per 'Total RG Score' or 'Total Impact points', as:

(a): <u>**Top-10 on Total Impact points**</u> (Institutes with present total score)

1. University of Washington Seattle 357,271.34
2. University of California, San Francisco 301,491.34
3. National Institutes of Health 295,197.56
4. Harvard Medical School 291,530.00
5. Stanford University 283,821.38
6. Johns Hopkins University 270,565.62
7. University of Toronto 252,072.77
8. University of California, Los Angeles 239,563.53
9. University of Michigan 238,110.48
10. University of Wisconsin, Madison 217,656.78

(b): <u>**Top-10 on Total RG Score**</u>: (Institutes with present total score)

1. <u>Chinese Academy of Sciences</u> 92,192.73
2. <u>University of São Paulo</u> 83,630.03
3. <u>National Research Council</u> 74,289.07
4. <u>French National Centre for Scientific Re...</u> 73,175.98
5. <u>University of Michigan</u> 72,147.95
6. <u>Russian Academy of Sciences</u> 71,792.26
7. <u>Karolinska Institutet</u> 64,030.35

8. <u>University of Washington Seattle</u>   60,097.24
9. <u>National Institutes of Health</u>   60,082.38
10. <u>University College London</u>   58,759.75

It is interesting to note the wide variations in scores, even among the leading Institutes. CAS Beijing now has a score over 92000, while the score of the 5th ranker is almost one-fourth of it.

Top 5 Institutes, by total RG score in Asia & India

When this author looked at the growth in research, (based on total RG-Score from ResearchGate), there is no change in top-five rank list, during last three months' observation period. Following tables give the respective scores and the growth rates:

Sr.	Top Asian Institutes by RG Score	25.2.2014	17.03.2014	28.4.2014	Growth%
1	**Chinese Academy of Sciences Beijing**	92,192.73	95,906.94	106,008.21	14.99
2	**The University of Tokyo, Tokyo**	31,182.13	31,837.26	34,026.47	9.12
3	**Tel Aviv University, Tel Aviv**	29,534.55	29,932.24	31,330.09	6.08
4	**Kyoto University, Kyoto**	27,309.17	28,019.79	30,220.12	10.66
5	**Hebrew University of Jerusalem**	23,773.03	24,189.78	25,783.52	8.46

Sr.	Top Indian Institutes by RG Score	25.2.2014	17.3.2014	28.4.2014	Growth%
1	**Indian Institute of Science Bangalore**	9,002.93	9,428.91	10,290.17	14.30
2	**BARC, Mumbai**	7,753.94	8,052.89	8,525.65	9.95
3	**AIMS, New Delhi**	7,409.13	7,662.98	8,260.22	11.49
4	**ICMR, New Delhi**	6,388.53	6,516.21	6,629.32	3.77
5	**IIT Kharagpur**	5,689.12	5,887.24	6,615.17	16.28

Concluding observations:

The objective of this statistical compilation is to create awareness, both among the researchers and also the institutes, to understand the statistics carefully, before making any judgment. Efforts should be made to encourage the researchers to take advantage of such research-network initiatives, like RG. Once most/ majority of research work is covered in a network, then only its scores/ statistics would be more trustworthy and comparable.

Issues/ questions which also come here, for further discussion and research, are:

- Are we giving 'unjustifiably' less importance (in terms of impact/ RG-score) to research-publications in Social Sciences & Management (than Medical, Engineering or Pure Science)[4]

- Are we missing to cover some of bright-talents (and innovative ideas) not covered in reputed journals;

- Are we indirectly facing a situation of 'bad-money driving the good-money out of circulation' (good researchers silently opting out of this so called 'publicity' drive (?).

- Is there any significant variation (dispersion) among the scores calculated by similar (other) research-networks, as given for the same Institution/ University? What can be done for reduction of such variations?

- Can we not develop robust 'formula/ algorithm', whose validity & reliability (as tested in research for a scale/ instrument) could be quite good?

Fellow researchers can have their own feelings and opinion. Experience from their own Institute would be worth noting, for further analysis.

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Notes & References:

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1. **Ijad Madisch** holds an M.D. and Ph.D., and studied medicine and computer science in Hannover at Harvard University. After several years in Boston, where he worked as a radiology researcher at the Massachusetts General Hospital, Ijad moved to Berlin and founded ResearchGate in 2008.

2. **Impact points** are calculated based on which journals a researcher has been published in. This list shows institutions based on the sum of the impact points of publications attributed to them. RG-Score measures an individual researcher's reputation, collectively, a group of colleagues' scores can be seen as a reflection of an institution.

    [https://www.researchgate.net/RGScore/FAQ/]

3. Editorial- ('Research Statistics: Quantity also matters'), Parikalpana: KIIT Journal of Management, Vol-10 (I), 2014);

4. https://www.researchgate.net

Study on Cell Phone Feature Perception and Usage Behavior among Students

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ABSTRACT

It is a study on the perception of consumers towards different features of cell phone and usage pattern. MBA students from Bhubaneswar and Kolkata had participated in the study. Exploratory factor analysis identified two dimensions of cell phone feature perception scale: "Communication" and "Entertainment". Eta tests revealed the perception of cell phone features did not differ significantly across different demographic groups. However, there was gender difference in the perception of "Entertainment" dimension of cell phone features. The study also presents the descriptive statistics of the usage patter of cell phones among students and provides a base for further studies in this area in India.

Key words: Cell phone feature perception, cell phone usage pattern, product bundling

Introduction

Since the inception of this device, Mobile phones have made remarkable changes to the personal and social life of the users. While searching for the meaning of this device to its users, many studies have come up with interesting findings. While some studies reveal that those who use cell phone consider it as an "extension of their physical selves" (Gant & Kiesler 2001; Oksman & Rautiainen 2003), some other studies reveal that users consider cell phone as "symbolically representative of their identities" (Campbell, 2008; Katz & Sugiyama, 2006). In India, once having a mobile phone was considered as "status symbol" but now has become a

"necessity". However, still substantial numbers of people consider it as a "Style statement" (MACRO 2004).

As it is revealed by studies, cell phones are used to maintain and strengthen social networks (Campbell & Kelley, 2006; Johnsen, 2003). Moreover, it has been observed that mobile devices, in comparison to other social media such as Twitter, Facebook, e-mail, landline, are more capable of maintaining "strong-tie" relationships (see Ling, 2008).

Mobile phones started as a substitute to landline telephones but now have become an inevitable part of life. It has gone beyond just talking by providing multimedia messaging and direct internet access. What was rightly predicted by Townsend (2002), that '*cell phone will subsume all other forms of communication: email, phone calls, and the web, which will be accessible by the 'universal handheld'*', has become a reality today. The new age mobiles are able to provide facilities such as stock prices, sports scores, restaurant reviews, movie guides, and even directions.

Almost all developments in the area of information technology are getting incorporated into the cell phone. For example, companies like AT&T, Sprint Nextel, and Verizon Wireless provide a service that allows users to post messages on Facebook's home pages or search for other users' phone numbers and e-mail addresses from a cellular telephone (Kansas City Business Journal, 2008).

The social trend towards convenience and luxury has also contributed towards the growth of mobile phone features. For example, cellular phones are used for mobile banking and also are used as "virtual wallets" for shopping (Heussner 2011). Research in Motion (RIM), the Canadian manufacturer of BlackBerry, is the first company to have its devices certified by MasterCard Worldwide, with the functionality of PayPass (Penfold 2011). Mobile money is so popular in Japan that shoppers prefer to carry their cell phones to restaurants and shopping malls and make payment through E-cash. Automated docking stations are there where they add credit to the E-cash (Failoa 2005). In Philippines, this technology was adopted years ago because many do not have a valid bank account and mobile penetration is greater than the banking industry penetration (Teves 2011).

Along with the developments in the software aspect of cell phones, there are also significant changes in the hardware aspect of this device such as high tech fashionable design with touch screen to barcode reading facilities. For instance, LG Telecom and Prada, a Luxury apparel have collaboratively produced "Prada Mobile Phone", a high-tech, button-less, touch screen cellular phone with a distinctive, fashionable design (Ramstad & Fowler, 2007). Similarly in Japan, McDonald's customers point their cell phones at the wrapping on their hamburger and get nutrition information on their

screens. Users there can also point their phones at magazine ads to receive insurance quotes and film promoters can send their movie trailers from billboards (Story, 2007).

Indian Scenario

Around 10 years back mobile phones entered Indian market and now it is the second largest market after China (MACRO 2004). It has been found out that number of mobile subscribers in India is more than bank account holder, credit card holders and number of ATMs (Aggarwal, Jain & Subramanian 2011). This study revealed that while 240 million individuals of India have bank accounts, there are 500 million mobile phone subscribers. Around 110 million households do not have bank accounts and interestingly 42 percent of them had cell phones.

Although adoption and usage of mobile money in India is not as mature as African and Middle Eastern countries (Bansal, 2011), some players have done good business in India. For example, Nokia partnered with Yes Bank on the mobile money service "mChek" which has seen a significant increase in the Indian market with two million subscribers followed by NG Pay with one million and other smaller offerings (e.g., Airtel Money, PayMate, and Mobile Money Services).

The potential of growth of mobile market in India has been made a reality by market research firms. In the report, 'Moving Towards a Mobile Enterprise –

Journey of India Inc.' The Springboard research team recommends a four-phased roadmap for companies that embark on a mobile enterprise strategy which is as follows:

1) *Conventional Mobility: basic applications such as e-mail, messaging, contacts, and calendar;*

2) *Automated Workforce: critical applications like ERP, CRM and sales-force automation which enables mobile workers to minimize paperwork, improve productivity, and achieve higher sales;*

3) *Always Connected: applications that extend real-time communication and collaboration capabilities to employees anytime, anywhere and on any device;*

4) *Pervasive Mobility: applications that integrate function-specific applications to enhance brand image and bring efficiencies in internal operations such as finance and human resources.*

(Adapted from Team YS, 2011)

Why study students' perception on Cell phone features

Study on consumer behavior on certain products gives insight to the manufacturers to device strategies for the marketing of the products. One such strategy is product bundling. Studies suggest that companies can compose

bundles by considering their customers' needs and practices (Knutsson 2011). Hence, studying the usage behavior and the underlying motive behind the usage of cell phones would decipher certain valuable information for product bundling.

The aim behind bundling is to create multifunction products like the high megapixel camera phone and helps manufacturer to obtain price discrimination when heterogeneous consumers have different willingness to pay or reservation values (Stigler 1968). Previously, the products which were stand alone such as fax machines, printers, scanners, copiers, PDAs and cell phones are moving towards multi-functionality. Printers have become multi—functional with an integrated scanner, copiers, and faxing capabilities are common. Similarly, Cell phones are manufactured with features such as PDA, digital camera, and built-in music players etc. The multifunctional cell phone devise also gives flexibility to the users to do multiple usages at a time. The user is seen text chatting with friends in FaceBook while listening to the music; or listening to the music while commuting to the office on public transport; or ordering a pizza online through a mobile while returning home (Chen, Vakharia & Alpteckinoglu 2007).

Bundling in one hand provides flexibility to the suppliers in deciding whether they should bundle, if yes, whether the bundle should coexist with their components. On the other hand the buyers take a decision either to buy the bundle or some of the components of the product.

This is the time of demand innovation for the Mobile Manufacturers and the need to find the niche applications to market their own product because cut throat price competition and "value for money" seekers dominate in an emerging market like India. All products have similar features with similar stable performances and after-sales support therefore the pertinent question is how to create product differentiation in a competitive market. In a mature product market like this, bundling strategy would help companies position their products (Russell et. al. 1999). If the cell phone manufacturers can find the basic utilities wanted by a group of people and bundle those features without adding many other unwanted features, the segment might find a better value in their device.

Research Objectives

There are two objectives of this paper. First, to study the perception of consumers towards different features of cell phone. Understanding the amount of importance people put on different features of cell phone will help us make sense of the technology adoption process of different groups. The second objective is to study the cell phone usage pattern among respondents by exploring the following aspects —such as length of cell phone usage, typical time of cell phone use, average number of calls received/sent, and typical location of cell phone use.

Methodology

Sample

An online questionnaire was developed and targeted at graduate management students in Bhubaneswar, Orissa (a Metro city in eastern India). In total, 157 persons responded out of which 121 usable and completely filled in questionnaires were retained for final analysis. This resulted in more than 77% response rate. The participants in the sample were mostly MBA students.

As the sample profile in table 1 reveals, a majority of our respondents (85%) represent the age group within 25 years, who are studying PG Programs with 9.09% already having the PG level of education. There were more male respondents (71.9%) than females (28.1%). Out of total respondents 7.44% were found to be earning more than INR40K per month. 93.39% of people responded as student and a majority of the total respondent group are from Orissa (83.47%) with the next largest segment from West Bengal (6.61%).

Table 1. Sample Profile

Variables	Groups	Frequency
Age	<25	103
	26-34	11
	35-40	4
	41-45	3
Sex	Male (%)	87
	Female	34
Income	None	94
	<= Rs.15000	1
	<= Rs.20000	7
	<= Rs. 30,000	6
	<= Rs. 40,000	9
	More than Rs. 40000	4
Education level	Graduation	113
	Post Graduation	2
	Ph. D.	3
	Professional qualification	1

Occupation	Professional Services	2
	Teacher	0
	Professor	3
	House Wife	2
	Businessman	1
	Student	113
	Lawyer	
	Other	
Place of residence	Orissa	100
	West Bengal	8
	Bihar	1
	Jharkhand	3
	Mumbai	4
	Other	2

Instrument

Cell phone feature perception scale

To understand the perception of students about different cell phone features, a scale by Stark, Rumpel, Meier, & Bell (2008) was adapted. The scale consisted of 12 features of cell phone and the responses ranged from 1= not important to 3= Very important. Exploratory factor analysis of the scores on the current sample revealed two dimension of this scale: 'E-communication' and 'Entertainment' (Table 2). Whereas the original scale had identified four factors such as E-communication, safety, game value, and free minutes. The two factors identified here explained 50.85% of the variance. One item of the scale (intercom) did not load significantly on any of the factors and hence was omitted. It may be the lack of popularity/implementation of that feature in India. The alpha reliability of the rest 11 items of the scale was 0.84 suggesting high reliability.

Table 2. Factor analysis of cell phone feature perception scale

Sl. No.	Items	Factor-1	Factor-2
Communication			
1	Games	.616	
2	Instant Messaging	.676	
3	Warranty on Cell Phone	.707	
4	After Sales Service	.709	
5	Earpiece	.630	
6	Internet Access	.555	
7	Intercom		
Entertainment			
8	Free Minutes		.587
9	Digital camera with Higher Megapixel		.808
10	E-mail		.829
11	Social Networking		.825
12	Music & Juke Box		.744
	Eigen values	4.24	1.81
	Percentage of variance	24.82	21.68

Behavioural Characteristics

To study the extent of cell phone use by students, a questionnaire was developed with some close ended and few open ended questions. The questionnaire contained behavioral questions; examining topics such as the frequency of calls sent and received, and the length of cell phone usage and the money they spend on their phone; along with their awareness of VOIP (Voice over Internet Protocol) a new cost-saving technology. The major part of the questionnaire has been adapted from the questionnaire developed by Stark, Rumpel, Meier, & Bell (2008). With the consent of the authors of the questionnaire, the same has been validated in India.

Results

Cell phone feature perception

In order to find out the perception of different demographic segments towards different cell phone features Eta tests were conducted. Results revealed that the perception of respondents on both communication and entertainment

dimension did not differ across different age groups, occupation groups and income groups. However, males and females differed in their perception of entertainment dimension (Table 1). Such findings may be attributed to a homogenous sample. Students who are pursuing management education in metro cities have similar type of lifestyle and that might have contributed to the similarity in perception irrespective of other differences.

Cell phone usage pattern

The second objective of this study was to determine the extent of cell phone brand usage and from table 2 we see the majority of the respondents have Nokia (56.2%), Samsung (36.36%) and LG (13.22%) and 92% report having a different brand of cell phone than others in their household and only 8% are the only cell phone user in their family. In ranking feature importance, Warranty on cell phones (60.33%), Games (56.20%), Internet Access (57.02%), Digital camera with Higher Pixel (55.37%), Music & Juke Box (52.89%) and Social Networking (50.41%) are rated more than 50% and the least important features is Intercom (9.92%) because in India this features in cell phone is not available or popular amongst cell phone users. A majority of the respondents spend less than Rs.500 every month (38.02%), with 23.97% spending less than Rs.200.

It has been found out that a majority are the avid cell phone users 52.89% who eliminated the household landline. This indicates that the utility and popularity of landline is slowly declining. When the respondents were asked about their purpose of buying the cell phone, 89.26% answered to stay in touch with friends, then to listen music (69.42%), Internet browsing (62.81%), E-mailing (47.11%) and chatting (42.15%) as part of the lifestyle. A significant portion of the respondents are aware of VoIP (Voice over Internet Protocol) (49.59%) and use Gtalk (34.71%) or Skype (23.14%) through which cell phones could be connected and operated over VoIP.

Table 3. Opinion of users and non users on different aspects of cell phone use

		No. of users	Percentage (%)
Does your household have a cell phone?			
	Yes	111	92
	No	10	8
Which Brand Preference?			
	Nokia	68	56.2
	Samsung	44	36.36
	Apple	10	8.26
	Blackberry	12	9.92
	LG	16	13.22
	Micromax	11	9.09
	Other	19	15.70

Which Feature is important to you?		
Games	68	56.20
Instant Messaging	56	46.28
Warranty on the cell phone	73	60.33
After Sales Service	54	44.63
Ear Piece	37	30.58
Internet Access	69	57.02
Intercom	12	9.92
Free Minutes	45	37.19
Digital camera with higher pixel	67	55.37
E-mail	51	42.15
Social Networking	61	50.41
Music & Juke Box	64	52.89
Monthly Cell phone Bill in Rs		
<= Rs.200.00= 1	29	23.97
<= Rs.500.00= 2	46	38.02
<= Rs. 1000.00= 3	13	10.74
<= Rs. 1500.00= 4	28	23.14
Other= 5	5	4.13
Completely eliminated landline service from home		
Yes		52.89
No		47.11
Purpose of buying new cell phone		
Music		69.42
Staying in touch with friends		89.26
Just for the emergencies		17.36
Social Networking		53.72
E-mailing		47.11
Chatting		42.15
Internet Browsing		62.81
Other		0.00
VoIP Technology Awareness		
Yes		49.59
No		22.31
If Yes do you Use It?		
Yes		57.85
No		42.15
If yes, which of the following system do you use?		
A regular telephone handset connected to internet via computer		4.96
Cell phone connected to the Internet		21.49
Skype		23.14
Gtalk		34.71
Not Applicable		34.71
Other		5.79

Table 4.   Gender and telephone feature perception

Variables	Mean	SD	Eta	Eta squared	F
Sex (Communication)					
Male	14.83	5.52	0.090718	0.008	0.91
Female	13.7576	5.25			
Sex (Entertainment)					
Male	11.98	5.49	0.198865	0.039	4.57*
Female	14.33	4.81			

Discussion and conclusion

This study finds that the student segment uses features like Internet messaging, social networking, music and games. If these features could be bundled into a simple smart phone with real-time Internet connection at a competitive price, this product might be a winning proposition in India. Already this process is started when Vodafone in India and Alcatel offered a unique product specifically designed for those who love staying in touch with their friends through FaceBook in real-time but in an economical way (Saxena, 2011). Simply put, a convergence product is a digital-platform product bundle that physically integrates two or more digital platform technologies into a common product form (e.g., a mobile phone and a digital camera into a camera phone). However, the role of level of technology in preference for bundled products should be taken into consideration (Han, Woong & Sohn 2009). Therefore, bundling can be a viable option in India, because most customers desire for cost efficiency in their assessment of product value.

This study examined cell phone usage from a behavioral and psychological perspective. Hence, apart from the close-ended questions, some open-ended questions were asked such as: Why do you like your Cell Phone?; What motivates you to use your cell phone?; What are your hobbies & interests?; What's your general opinion about cell phone and its usages? The objective of these open-ended questions was to see what type of descriptors were used for the "why liked" and "motivations" questions. Furthermore, getting a sense of respondent hobbies/ interests should enable a more tailored advertizing response by managers. The study results indicate that students use cell phones for a wide range of purposes: connectivity, time management, information acquisition, and entertainment. The degree of cell phone dependency and possible negatives of their utilization are also examined. The findings suggest people have a variety of feelings and attitudes towards cell phone usage but the benefits of having and using a cell phone definitely outweigh the potential risks. This study serves as a foundation for future studies

examining Indian technology adoption which will be of interest to industry managers.

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Customer Satisfaction for Mobile Telecom Industry in Kolkata : A Survey Research

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ABSTRACT

Customer satisfaction is considered as an experience based assessment made by the customers of how far their expectations are fulfilled. Hence, the marketing strategies to deliver telecommunication services are so important because as soon as customers subscribe to a particular telecommunication provider, their long-term link with this provider is of greater importance to the success of the service provider. Main focus of this paper is study the customer satisfaction level in the Kolkata telecom circle.

Introduction

India's telecommunication network is the second largest in the world based on the total number of telephone users (both fixed and mobile phone). It has one of the lowest call tariffs in the world enabled by the mega telephone networks and hyper-competition among them. Major sectors of the Indian telecommunication industry are telephony, internet and television broadcasting. Liberalisation of Indian telecommunication industry during the last decade of previous century has paved the way for significant inflow of private as well as foreign direct investment in this sector. In the financial year 2010-11, total foreign direct investment in this sector was [1] 75.46 billion (TRAI, 2012). The total revenue in the telecom service sector was ₹867.2 billion in 2005–06 as against 716.74 billion in 2004–2005, registering a growth of 27 percentage per year with estimated revenue of [1] *1717 billion* for the financial year *2010-11*. As a consequence of this

factor and the rapid development of mobile communication technology, the telecom industry in India has experienced an exponential growth in subscriber base crossing over the 911.17 million mark in 2012 (TRAI, 2012). Eight to ten major privately owned companies along with the government owned Bharat Sanchar Nigam Limited (BSNL) are now catering the needs of this huge subscriber base. A brief snapshot of Indian telecommunication sector is provide in the appendix.

The entry of private cellular companies, inflow of foreign direct investment etc. have made the mobile telecom industry highly competitive with tight margin and fleeting customer loyalty. Subsequently, revenue leakage, customer churns and ineffective customer service have put pressure on the profitability of the service providers (Eshghi, Roy and Ganguli, 2008). As a result of which, the service providers face serious problems

in retaining the existing customers and also in acquiring new customer base. The service providers have to incur additional expenses in retaining existing customers and in acquiring new customers and this, in turn, reduces the average revenue per user.

Under this backdrop, it is very obvious that the mobile phone service providers want to make customer satisfaction a strategic priority. Tele-communication products falls under the intangible services that are not concrete products, but their utility can be determined based on what the customers feel towards the rendering of services by the service providers per period of time (Abayomi, 2011). Customer satisfaction is considered as an experience based assessment made by the customers of how far their expectations are fulfilled. Hence, the marketing strategies to deliver telecommunication services are so important because as soon as customers subscribe to a particular tele-communication provider, their long-term link with this provider is of greater importance to the success of the service provider. As such, our main focus of this paper is study the customer satisfaction level in the Kolkata telecom circle. More specifically the major objectives of the paper are as follows:

1. To examine the quality of services rendered by the service providers in Kolkata metropolitan area of West Bengal, India;

2. To examine the level of satisfaction of the mobile users across the different service providers; and

3. To find the service providers which differ significantly from others in providing the desired level of satisfaction to the mobile users.

The present study is planned into five sections. The After the introduction in section I, section II deals with the literature survey of the research problem. Data and methodological aspect are outlined in section III. Section IV consists of results and discussion of the study, while the final section V summarises the conclusion and policy prescription emanating from the overall analysis.

REVIEW OF LITERATURE

There are numerous literatures available in this particular area of consumer satisfaction both at the national and international levels. Also there are good number of literatures on the topic of customer satisfaction in different segment of products and services. However, in this paper survey of literature is done mainly for the customer satisfaction in mobile telecommunication industry. At the global level, Srikanjanarak, Omar and Ramayah (2009), Belal Uddin and Akhtar (2012), Loke, Taiwo, Salim and Downe (2011), Almossawi (2012), Abayomi (2011), Adetayo and Apollos (2013) are some of the notable studies in recent times. Coming to Indian telecommunication sector, Eshghi, Roy and Ganguly (2008), Ul Farid (2013), Balaji (2009), Pawar (2008),

Mallikarjuna and Mohan (2010) have contributed significantly in this particular field of customer satisfaction in telecommunication sector. Eshghi, Roy and Ganguly have found that relational quality, competitiveness, reliability, reputation and transmission quality are the most significant predictors of customer satisfaction. The study of Balaji (2009) shows that perceived quality is an important predictor to customer satisfaction, which ultimately results in trust, price tolerance and customer loyalty. Using Kano model, Ul Farid (2013) has shown that in Bihar telecom circle, the customers were not satisfied with the overall services offered by the service providers.

RESEARCH METHODOLOGY

The present study is based on the primary data which were collected through the primary field survey using a structured questionnaire. The data were collected during the period of February-March, 2014. The survey covers the exterior part of Kolkata telecom circle. In all, a total of 225 filled questionnaires were collected. Out of these 225 filled questionnaires, after details scrutiny 217 respondents were included in the study. The five-point weighted Likert scale was used to measure the satisfaction level of the respondents-(1) Extremely dissatisfied, (2) dissatisfied, (3) Neutral, (4) satisfied, (5) extremely satisfied.

To analyse the data, first percentage analysis was applied to see the demographic profile of the respondents.

The t-test was used to test the quality of service rendered by the service providers. For this, the following hypothesis was framed.

As regards the quality measurement, twelve specific criteria were selected. These are: courtesy, adequacy, reliability, promptness, network availability, billing cost, browsing plan, call quality, coverage area, customer care, recharge and value added services.

As already mentioned, five-point Likert scale was used. So, the mean of the ratios is 3.

Now if any respondent answer is 3 or less than 3, the particular respondent is not satisfied. So, eventually our hypothesis becomes

Again to examine the satisfaction level of the mobile users across the different service providers, one-way ANOVA technique was used. The test hypothesis is

Finally, to find out the service providers in which the users do not feel satisfied, a post-hoc analysis was applied. Here Tukey's post-hoc analysis was applied assuming equal variances of the populations.

RESULTS AND DISCUSSION

Demographic Characteristics of the Respondents: The sex distribution shows that 63.13 % of the respondents were male, while 37.33 % were female. The age distribution shows that 45.62 % belonged

to the age group of below 25 years, 30.41 % belonged to the age group of 26-40 years, 5.53 % belonged to 41-50 years, 11.06 % belonged to the age group of 51-65 years while the age group 66 years and above captures the remaining 7.37 % of the sample. With reference to educational level of the sample respondents, it has been observed that almost 54 % were educated up to school level (up 12th standard), 33 % were college graduate while rest 13 % were post graduate and professionally qualified. With respect to occupational standard of the respondents, 36.41 % of total respondents were service holders, 21.65% were students, 14.28 % were housewife while the business and other professional jointly form 27.65 %. Out of 217 respondents, 35.48 % were relatively new users as they were using mobile phone for less than one year. Almost 34 % of them were using mobile connection for 2-5 years and 21 % were using for more than five years while 10 % of them were using mobile connection for more than eight years. Regarding the share of the different service providers among the surveyed respondents, the details is shown in figure 1.

Reliability Checking: Any research work based on primary data should qualify for the reliability analysis for internal consistency of the questionnaire and primary data. Accordingly the data has been checked with the reliability analysis and the Cronbach's alpha statistics was found to be 0.754 which is considered to be reasonably well.

Percentage Analysis: A set of twelve criteria/parameters related to mobile service communication was selected to study the customer satisfaction level. These criteria or parameters were: Courtesy, Adequacy of Facilities, Reliability, Promptness of Service, Availability of Network, Billing cost, Browsing Plan for mobile internet, Call quality, Coverage Area, Customer Care facilities, Recharge options and Value-added service.

The distribution of the respondents as per their satisfaction level with respect to 12-point parameters is shown in table 1 below. It is observed that the respondents show relatively high response in the areas of service like adequacy, reliability, promptness, network, recharge facilities. In none of the services, customers are extremely satisfied with mean score exceeding four. All the service providers performed poorly in value added service facilities as the mean score goes down three. The grand mean score for the all the functional areas is 3.15, which is just above the neutral position of the respondents.

Testing of services rendered by service providers: As mentioned in methodological section that if the mean score of the respondents with respect to a particular variable is 3 or less than 3, this implies that the respondents, in general, are not satisfied with the service rendered by all the service providers in the survey area. Following this the hypothesis becomes,

A one-sample t-test was applied to examine the services rendered by the service providers in the study area. The results are displayed in table 2 below. The above results clearly show that the customers are satisfied with the services rendered by the different service providers in the areas of adequacy of facilities, reliability, promptness, network, browsing plan, call quality, area of coverage and recharge option. However, they are not satisfied with the services like overall courtesy, billing service, customer care facilities and value added services provided by the various service providers in the study area. Thus, we get a mixed results with regard to customer overall satisfaction towards service providers.

Testing of Customer Satisfaction across Different Service Providers:

After examining the overall satisfaction level of the mobile users in the study area, we next try to explore if there is any difference in the satisfaction levels across the different service providers. For this one-way ANOVA was conducted considering satisfaction level with respect to twelve parameters as dependent variable and 'connection' as factor. The result is shown in table 3 (given in appendix).

It is found that there is no difference among the eight service providers in providing the services to their customers in areas of courtesy, billing, internet browsing plan and coverage area. Hence no post-hoc analysis is required. However, the service providers vary among themselves in providing quality service to the customers in the area of adequacy of facilities, reliability, promptness, network, call quality, customer care facilities, recharge option and value added service (VAS), as the F-values are high enough and the corresponding p-value is less than the level of significance, to reject the null hypothesis. Consequently, a post-hoc analysis is required to find out the service provider(s) which differs from others in providing desired level of satisfaction.

The post-hoc analysis shows that the state-owned BSNL differs significantly from others privately owned players in as many as five functional areas. More specifically, BSNL is lagging behind many privately owned players in the areas of adequacy, promptness of service, network, call quality and customer care facilities. The worst situations are in the areas of promptness and customer care facilities where BSNL lags behind five players (Airtel, Vodafone, Reliance, Aircel and Tata) and four players (Airtel, Aircel, Idea and MTS) respectively. Only in one functional area viz. reliability BSNL exceeds any privately owned players (Aircel). Again on certain occasions significant differences are found among the private players also. For instance, Aircel is lagging behind Vodafone in terms of reliability. There is significant difference between Reliance and Aircel in adequacy where Aircel exceeds Reliance. Again Tata's call quality is better than Reliance.

CONCLUSION AND SUGGESTIONS

On the basis of the above results and discussion, it was clearly established that customers are not satisfied about the service quality in areas such as overall courtesy, billing service, customer care facilities and value added services. With a grand mean of 3.15 level of satisfaction on a five-point Likert scale, it is concluded that the mobile phone users in Kolkata are not highly satisfied with the services rendered by the service providers. The study also concludes a clear polarisation between state-owned BSNL and other privately owned service providers in terms delivering quality service to the customers at least in the areas of promptness, customer care facilities and call quality. It is, therefore, concluded that mobile service providers are lagging in rendering quality and satisfactory services in the areas of billing, customer care facilities and value added services to the customers in Kolkata region.

The study clearly establishes a relationship between customer satisfaction and the various dimensions of quality service delivery. Specially, it reflects and poor performance of the government owned BSNL and it suggests that immediate actions to be taken by the concerned authority to uplift the status of service quality rendered by BSNL. The present study can be used by the existing players in the mobile telecommunication industry in Kolkata and sub-urban region to enhance their performance in the area of service delivery. Players in this sector should strive to maintain the present level of satisfaction and raise the service quality where they are lagging compared to their competitors.

Tables and Figures

Figure -1 : Pie chart showing shares of service providers in surveyed population.
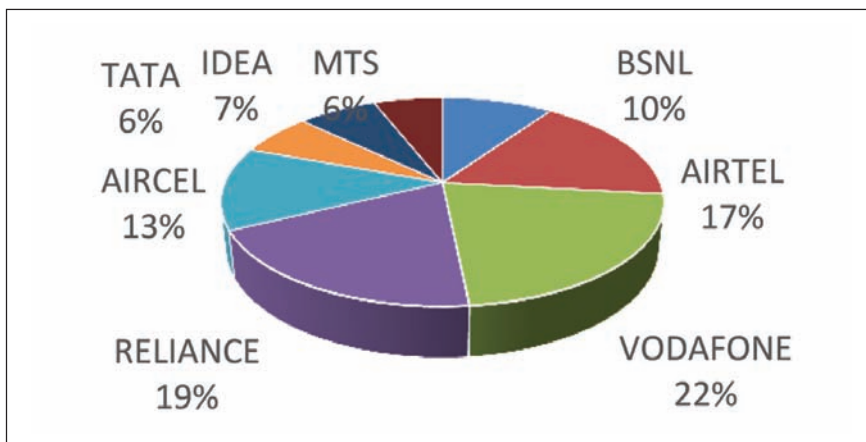
Source : Author's calculation based on primary data.

Table 1: Distribution of respondents according to satisfaction level (in % form)

Variables	Extremely dissatisfied	Dissatisfied	Neutral	Satisfied	Extremely satisfied	Mean score	S.D (Scores)
COURTESY	12.00	22.60	18.40	38.20	08.80	03.09	1.198
ADEQUACY	08.30	19.40	20.30	47.90	04.10	03.20	1.065
RELIABILITY	07.80	27.20	14.30	37.30	13.40	03.21	1.206
PROMPTNESS	07.40	20.30	27.60	34.10	10.60	03.20	1.108
NETWORK	11.50	21.70	14.30	35.90	16.60	03.24	1.284
BILLING	07.40	24.90	30.40	30.40	06.90	03.05	1.062
BROWSINGPLAN	06.50	16.10	41.50	26.70	09.20	03.16	1.017
CALL_QUALITY	06.90	26.70	19.80	34.60	12.00	03.18	1.159
AREA_COVERAGE	05.10	30.90	20.70	34.50	08.80	03.11	1.096
CUSTOMER_CARE	07.40	29.50	22.10	33.20	07.80	03.05	1.113
RECHARGE	06.50	21.20	15.20	41.00	16.10	03.39	1.174
VAS	06.00	21.20	51.60	18.40	02.80	02.91	0.861

Source: Based on primary data.

Table 2: One sample t-test for checking service quality

Variables	H_0	H_1	t-value	df	Pr(T>t)	95 % Confidence Interval	
						Lower	Upper
COURTESY	Mean =3	Mean > 3	1.13	216	0.12	2.93	3.25
ADEQUACY	Mean =3	Mean > 3	2.80	216	0.00	3.06	3.34
RELIABILITY	Mean =3	Mean > 3	2.58	216	0.005	3.05	3.37
PROMPTNESS	Mean =3	Mean > 3	2.69	216	0.003	3.05	3.35
NETWORK	Mean =3	Mean > 3	2.80	216	0.002	3.07	3.41
BILLING	Mean =3	Mean > 3	0.63	216	0.26	2.90	3.18
BROWSINGPLAN	Mean =3	Mean > 3	2.33	216	0.01	3.02	3.29
CALL_QUALITY	Mean =3	Mean > 3	2.28	216	0.01	3.02	3.33
AREA_COVERAGE	Mean =3	Mean > 3	1.48	216	0.06	2.96	3.25
CUSTOMER_CARE	Mean =3	Mean > 3	0.61	216	0.27	2.89	3.19
RECHARGE	Mean =3	Mean > 3	4.91	216	0.00	3.23	3.54
VAS	Mean =3	Mean > 3	-1.57	216	0.94	2.79	3.02

Source: Based on primary data.

Appendix I

Table 3: One-way ANOVA for comparing service providers' performances

Variable	F-value	Significance Level	Remarks
COURTESY	1.949	0.063	H_0 accepted & No post-hoc required
ADEQUACY	2.697	0.011	H_0 rejected & post-hoc required
RELIABILITY	2.685	0.011	H_0 rejected & post-hoc required
PROMPTNESS	3.864	0.001	H_0 rejected & post-hoc required
NETWORK	2.052	0.050	H_0 rejected & post-hoc required
BILLING	1.913	0.069	H_0 accepted & No post-hoc required
BROWSINGPLAN	1.102	0.363	H_0 accepted & No post-hoc required
CALL_QUALITY	2.947	0.006	H_0 rejected & post-hoc required
AREA_COVERAGE	1.570	0.146	H_0 accepted & No post-hoc required
CUSTOMER_CARE	4.728	0.000	H_0 rejected & post-hoc required
RECHARGE	2.506	0.017	H_0 rejected & post-hoc required
VAS	2.516	0.017	H_0 rejected & post-hoc required

Source: Based on primary data.

Table 4: Post-hoc analysis with respect to service providers' performance
(only statistically significant results are shown)

Variable	Connection (I)	Connection (J)	Mean difference(I-J)	Standard Error	Significance Level
Adequacy	BSNL	AIRCEL	-0.917[*]	0.299	0.050
	RELIANCE	AIRCEL	-0.821[*]	0.253	0.029
Reliability	BSNL	AIRCEL	1.095[*]	0.339	0.031
	VODAFONE	AIRCEL	1.064[*]	0.263	0.002
Promptness	BSNL	AIRTEL	-1.202[*]	0.290	0.001
	BSNL	VODAFONE	-1.267[*]	0.264	0.000
	BSNL	RELIANCE	-1.190[*]	0.283	0.001
	BSNL	AIRCEL	-1.262[*]	0.306	0.001
	BSNL	TATA	-1.571[*]	0.491	0.033
Network	BSNL	AIRTEL	-1.106[*]	0.345	0.033
Call Quality	BSNL	TATA	-1.690[*]	0.520	0.029
	RELIANCE	TATA	-1.571[*]	0.490	0.033
Customer Care	BSNL	AIRTEL	-1.147[*]	0.287	0.002
	BSNL	AIRCEL	-1.036[*]	0.303	0.017
	BSNL	IDEA	-1.914[*]	0.523	0.008
	BSNL	MTS	-1.603[*]	0.419	0.004
Value Added Service	AIRTEL	VODAFONE	0.562[*]	0.171	0.026

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Study on Psychological Contract of Faculties of Royal University of Bhutan

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ABSTRACT

Psychological contract has become an important concept of employee management because of its implication in employee's attitude and behaviour. Good amount of research has been done on the implication of breach / violation and fulfillment of psychological contract but little effort has been made to understand the nature of psychological contract especially among contract employees vis-a- vis their regular counterpart. The present research is an attempt to fulfill this objective. The research is designed to explore the formation and content of psychological contracts by the academicians in the Royal University of Bhutan. Using exploratory factor analysis of the survey data, six factors were discovered relating to the University's obligations to its employees; whereas five factors were found in relation to individual academic's obligations to the University.

Introduction

Since last decade, psychological contract became an important framework to understand and explain employment relationship, employee's job attitude and behaviour (Guest, 2004; Zhao, Wayne, Glibkowski, & Bravo, 2007). Employment relationship is not only confined to what is mentioned in formal or legal contract but goes beyond and that is the crux of the psychological contract. It has been argued that perceived obligations within the psychological contract are often more important to job-related attitudes and behaviour, than are the formal and explicit elements of contractual agreements (Thomson & Bunderson, 2003). Understanding the nature and content of psychological contract and effectively managing those can help organizations thrive, grow and prosper.

Use of contract employees as a part of organization's work force has become normal HR practices of organizations in both developed and developing economies. Organizations started practice of having employees on contract in addition to its regular/ full time/ permanent employees. Modeling on other industries and sectors, universities and colleges also started hiring employees especially faculties on contract basis realizing benefits such as flexibility, cost control, to maintain work standard and quality etc. This new trend of employment relation gave genesis of stream of research activities concerning

individual and organizational-level consequences. There has been concern that differences in work arrangement between regular and non-regular / contract employees may create differences in their work attitude and behaviour (Broschak, Davis-Blake, & Block, 2008, De Cuyper et al., 2008). Drawing on this finding the present study postulates that there may be differences in employee's psychological contract between the regular and contract employees.

Why the Present Study?

Psychological contract has been the subject of investigation to understand employee's attitude and behaviours in other sectors and industries but very limited number of studies has been undertaken on college and university teachers. Empirical research on psychological contracts has developed significantly during the past decade but very limited attention has been given on research on psychological contracts within academia (Krivokapic-Skoko & O'Neill, 2008). Further, the present researcher didn't find any research on contract faculties given the fact that contract faculties became the reality of the university and college teaching workforce. Also the present study is in the Bhutanese context where no such study has been undertaken. Studies undertaken in one cultural context can't be generalized in other culture. Good numbers of faculties of Royal University of Bhutan are on contract basis. Understanding attitude and behaviour from

both regular and contract faculties is essential for the good for the colleges and the universities. In this regard, it becomes important to understand psychological contract of faculties. Against this background, the present study will investigate the nature and content of psychological contract on contract and regular faculties of Royal University of Bhutan. Thus the objective of the present study is to find out what faculties believe, are their obligations towards their institutions and what they believe that institutions owes to them. The study will also explore the differences (if any) in the nature and content of psychological contract between the two types of employees.

CONCEPTS AND LITERATURE REVIEW

Contract Employee

In literature, different words are used for contract employees such as temporary workers, agency temps, labour hire workers, or temporary help-service workers, contingent workers (Veitch & Cooper-Thomas, 2009) etc. Contract employee is an individual engaged by an organization on certain terms and conditions of a written employment contract. An important feature of this work arrangement is that their service duration is limited unlike regular or permanent employment. Contract employees can also be workers hired by agency and send to the client organization for work. But in the present research contract employees

refs to employees hired directly by the organization.

Psychological Contract

Classical approaches to the psychological contract have considered both the employee and the employer as the 'parties' involved, however recent work has focused more on the employee and their perceptions (Coyle- Shapiro and Kessler, 2000). The psychological contract is, "*individual beliefs, shaped by the organization, regarding the terms of an exchange between individuals and their organization…A key feature of the psychological contract is that the individual voluntarily asserts to make and accept certain promises as he or she understands them*" (Rousseau, 1995; 9-10). In this study, the present researcher taking Rousseau's perspective of psychological contract defined it as the perceived exchange relationship between employee and the employer. Psychological contract is created in the minds of employees only and employees believe that mutual obligations have been made between the employee and the employers. Thus, psychological contract is unwritten, implicitly held subjective expectations and obligations between the two parties (employee and employer). But both the parties may not be in sync with the obligations towards each other.

The very nature of the psychological contract indicates its complexities in terms of its content. This may vary from individual to individual, from organization to organization. To understand its content, psychological contract is divided into two categories – relational and transactional. Transactional psychological contracts involve highly specific exchanges, mainly economic in nature; employment obligations are more short-term, work content based (Rousseau, 1990; 1995) and entail limited involvement on the part of both parties. Relational contracts, on the other hand, involve open-ended and vague mutual obligations, socio-emotional obligations, which may be characterized by attributes such as trust and commitment (Shore and Tetrick, 1994). A research conducted on temp employees having agency – client relationship, conducted in non-academic sector found that temporaries / contingent employees have more transactional psychological contract than relational (Millward & Brewerton, 1999; De Cuyper, et al., 2007; Lapalme, et al., 2011). But other evidences have found that the psychological contract of temporaries on the client-organization can also be relational (McDonald & Makin, 1999; Millward & Brewerton, 1999). Above findings are taken from the studies conducted with temporaries hired by agency and send to work in client organization. The situation may be different with the temporary employees hired directly by client organization. Other literatures took better path to understand its content and listed much in detail about the content of psychological contract. Herriot, Manning and Kidd's (1997) in their study in academic institutions in New

Zealand, listed obligations facing employees appears to be concerned with the quantity and quality of work done, loyalty to the employer etc., and providing a suitable work environment, supportive management, appropriate recognition for special achievements, adequate consultation, fairness and job security as obligations of employer. Krivokapic-Skoko, Ivers and O'Neill (2006), in their study differentiate contractual elements in (a) organizational citizenship behaviours; (b) basic obligations; (c) work environment; and, (d) loyalty as employee obligations and (a) payment/ benefits; (b) management; (c) work environment; (d) fairness; (e) empowerment; and, (f) personal needs, as employer's obligations. O'Neill, Krivokapic-Skoko, & Foundling (2007) using a focus group technique on faculties of Australians University conducted a research to explore the content of psychological contract on academia, found that academics view their work responsibilities in a much wider context than their immediate institutional environment. These researches have been done on regular faculties. But the differences in employment status create differences in their attitude and behaviour. Psychological contract is a very plausible approach to understanding attitudes and behaviors across different types of employment contracts and has recently been found to be of use in the understanding of contingent workers (Van Dyne & Ang, 1999). Thus, in this research, the researcher is assuming that contract employees, because of the temporary nature of employment, may have psychological contract different from permanent employees. Thus based on this assumption, it is conjectured that –

> *H: There will be significant differences in the content of psychological contract between the permanent and contract faculties*

METHODOLOGY

Sample and Survey Procedures

The study was conducted on faculties working in colleges under Royal University of Bhutan. Data for the study was collected by administering structured questionnaire on 110 faculties of the selected colleges of Royal University of Bhutan (RUB). Out of the 10 colleges of RUB, two colleges were selected for the study which has both regular / permanent and contract faculties. Respondents were selected based on random sampling method. Responses were taken from both contract (40 percent) and regular (60 percent) employees. 84 percent of the respondents were male and 16 percent were female and two - third of the sample respondents are in the age range of 26 to 35 years. Majority of the respondents (approximately 70 per cent) are having post graduate and above in qualification and the remaining are graduate only. All the necessary information regarding the study and ways to respond on questionnaire is shared with all

respondents. Respondents were assured of confidentiality of their responses and were told that their responses shall be used for the research purpose only.

Measurement of variables

Employer obligations - In the present research, employer obligations were measured using scale adopted from the scales of Janssens, Sels & Van den Barnde (2003), De Vos, Buyens & Schalk (2003) and Thompson and Bunderson (2003). Items in the scale were somewhat altered to reflect the college context of the research and also to suit the needs of the present context. Five-point Likert-scale, ranging from 1 (not at all) to 5 (to a very great extent) was used to get the response from the respondents.

Employee obligations - Similarly employee obligations were also measured using scale adopted from the scales of Janssens, Sels & Van den Barnde (2003), De Vos, Buyens & Schalk (2003) & Bunderson & Anderson (2003). Items in the scale were also somewhat altered to reflect the university context of the research and also to suit the needs of the present context.

RESULTS AND ANALYSIS

The present research is intended to meet two objectives – (1) to know the content of psychological contract of faculties of Royal University of Bhutan, and (2) to know differences of psychological contract between the contract and regular faculties.

Scale Development and Factor Analysis

In order to meet the first objective, survey was undertaken. Two factor analysis using exploratory factor analysis (EFA) and principal component analysis (PCA) tests were conducted. The first was on the institution's obligations and the second on the faculty's obligations to the university as perceived by faculties.

The first factor analysis was conducted to determine underlying constructs regarding the institution's obligations to faculties (Table 1). In interpreting the factor, only a loading of 0.4 or greater on the factor were considered. Similarly in identifying the factors using the Varimax rotated analysis, Eigenvalues greater than 1 are taken. The factor analysis was found to be satisfactory, with a KMO of 0.621 and a Bartlett's test of sphericity 0.00. Reliabilities were calculated for each of the identified construct to ensure the reliability of the measures used. It can be noticed that values calculated were more than the acceptable alpha limit of 0.6 (Sekaran, 1992). Factor loadings after factor analysis are given in the following table (table 1).

Six underlying factors were found and are referred to as –

1. **Job content obligations** – This factor points out towards the freedom and autonomy with respect to their job.
2. **Social Obligations** – This psychological contract indicates

towards providing safe and comfortable working environment, proper balance between the work and non work activities etc.

3. **Financial obligations** – Under this obligation, employees expect institution to provide attractive and competitive salary and salary based on their performance.

4. **Developmental obligations** – This obligation focuses on the opportunity to enhance their skill and knowledge, opportunity to go for higher education etc.

5. **Fairness and Equity obligations** – Employee expect that organization should be transparent in its systems and process of its work.

6. **Good management obligations** - This factor refers to the leadership style and behaviour.

Table - 1 : Factor Loadings and Scale Reliabilities of Institutions' Obligations to the Academics: Exploratory Factor Analysis (EFA)

Variables	Items	Factor Loadings	Reliability
Job content obligations	A job with responsibilities	.80	.620
	Provide academic freedom	.79	
	Opportunities to use my skills and capabilities	.73	
Social obligations	Provide good work-life balance	.68	.589
	Create a mutual cooperation among colleagues	.66	
	Provide security of ongoing employment	.80	
	Provide safe and comfortable work environment	.69	
Financial obligations	Provide attractive pay and benefits package	.78	.732
	Give salary increases based on performance	.75	
Developmental obligations	Provide opportunities for career development	.71	.710
	Provide opportunities to follow courses and training relevant to my job and career	.69	
	Provide opportunities for promotion based on performance	.72	
	Fair policies and treatment in promotion	.77	
Fairness and Equity obligations	Treat all employees with fairness	.63	.651
	Treat all employees equally	.68	
	Treat employees with respect	.72	
Good Management Obligations	Include in decision making that directly affect me	.74	.693
	Acknowledge and Recognize the work / contribution to the college / university	.70	
	Communicate important information that affects my work	.69	
	Act with integrity and stay true to the values and beliefs	.58	
	Express support for employees	.61	
	Provide feedback on performance and other issues	.65	
Initial Eigen values	25.63		
Cumulative Percentage of Variance Explained	63.72		
KMO Measure of Sampling Adequacy	.621		
Approximate Chi Square	553.21		
Significance	.000		

The second factor analysis was conducted to determine underlying constructs regarding the obligations of faculty to the college / university (Table 2). Five underlying factors were found and are referred to as meet 'in-role obligation', 'loyalty and commitment obligation', 'student's related obligation', 'flexibility obligation' and finally 'ideological obligation'. In interpreting the factor, only a loading of 0.4 or greater on the factor were considered. Similarly in identifying the factors using the Varimax rotated analysis, Eigenvalues greater than 1 are taken. The factor analysis was found to be satisfactory with a KMO (adequacy of sample) of 0.652 and a Bartlett's test of sphericity 0.00. Reliabilities were calculated for each of the identified construct to ensure the reliability of the measures used. It can be noticed that values calculated were more than the acceptable alpha limit of 0.6 (Sekaran, 1992). Factor loadings after factor analysis are given in the following table (table 2).

Table - 2 : Factor Loadings and Scale Reliabilities of Academic's Obligations to the Institutions: Exploratory Factor Analysis (EFA)

Variables	Items	Factor Loadings	Reliability
Employee in-role obligations / Academic obligations	Meet performance objectives	.77	.687
	Deliver qualitative work	.63	
	Comply with university/ college rules and regulations	.81	
	Act ethically at work	.59	
	Do scholarly works and publish	.73	
Loyalty and commitment obligations	Be committed to the job	.72	.732
	Be loyal to the organization	.69	
	Be committed to the success of the college/ university	.83	
Students related obligations	Provide quality teaching and learning	.68	.645
	Enhance students overall development	.75	
	Keep students engage in learning	.61	
	Guide students to learn	.56	
Employee flexibility obligations	Volunteer to do tasks that are not a part of your teaching and learning job	.82	.745
	Work actively in various college committees	.74	
Employee ideological obligations	Contribute to the mission and goal of the college/ university	.68	.688
	Help execute policies of college/ university	.82	
	Contribute to policy development of the college/ university	.73	
Initial Eigen values		23.58	
Cumulative Percentage of Variance Explained		71.691	
KMO Measure of Sampling Adequacy		.652	
Approximate Chi Square		663.693	
Significance		.000	

Based on the second factor analysis, five factors were found that employees believe that they owes to the organization. They are -

1. **In-role obligations –** This obligations is related to the employees thinking with respect to their work responsibilities and work style.

2. **Loyalty and Commitment obligations –** This obligation focuses on the employee's attachment towards the organization.

3. **Students related obligation - This** factor points out towards employees perception with respect to their responsibilities towards their students learning and their development.

4. **Flexibility obligation –** Fourth factor points towards employee's extra contributions to the organization beyond their defined roles and responsibilities.

5. **Ideological obligation –** This is relatively new area n the literature of psychological contract but is important as reflected in the factor analysis. This obligation refers to the employee's responsibility in meeting the organizational goals and mission.

Table 3: Mean, Standard Deviation (SD) and t- values of employee's obligation towards their employer in two types of employment status

Dimensions	Employment Status	Mean	SD	t - values
Employee in-role obligations / Academic Expectations	Permanent	13.86	2.91	1.147
	Contract	13.17	2.99	
Loyalty and commitment	Permanent	9.84	2.52	
	Contract	9.78	2.45	.120
Students related obligations	Permanent	10.62	2.05	
	Contract	11.78	2.43	2.528**
Employee flexibility obligations	Permanent	8.88	1.65	
	Contract	9.60	1.62	2.177**
Employee ideological obligations	Permanent	9.84	1.47	
	Contract	10.04	1.44	.675
Overall Employee Obligations	Permanent	60.07	6.16	
	Contract	61.13	7.19	.776

**Significant at p <0.05 level (2 – tailed)

Regarding the second objective of the study, the table given above (table 3) clearly reveals that there is no significant difference with respect to the perception of employee obligations towards the institutions between permanent and contract faculties. But a closer look at the table below indicates that two types of

employees differ significantly in perception of some of their obligations such as students related obligations (t = 2.52, p <.05) and flexibility obligation (t = 2.17, p<.05).

Similarly employees perceived believe with respect to their employer's obligations, there is no significant differences in two types of employees except in job content obligation (t = 2.63, p <.05) and obligations related to good management or leadership (t = 2.31, p < .05). Looking at both the tables 3 & 4, it can be concluded that findings partially supports the hypothesis of the study which asserts that there is significant differences in the content of the psychological contract between the contract and permanent employees.

Table 4: Mean, Standard Deviation (SD) and t- values of employers obligation towards their employees in two types of employment status

Dimensions	Employment Status	Mean	SD	t - values
Job content obligations	Permanent	10.94	1.22	
	Contract	11.69	1.58	2.634**
Social obligations	Permanent	22.21	1.72	
	Contract	23.04	2.44	1.940
Financial obligations	Permanent	8.70	.78	
	Contract	8.82	.94	.683
Developmental obligations	Permanent	13.19	1.29	
	Contract	13.65	1.59	1.552
Fairness and Equity obligations	Permanent	4.52	1.55	
	Contract	4.32	1.52	.650
Good Management Obligations	Permanent	21.78	2.14	
	Contract	22.95	2.82	2.316**
Overall Employers' Obligation	Permanent	81.13	6.39	.363
	Contract	81.73	9.76	

**Significant at p <0.05 level (2 – tailed)

Regarding the second objective, it is found that there are no significant differences in the content of psychological contract between permanent and contract faculties. However the result presented in the t-table reveals that in some areas both type of employees differ significantly. Contract employees believe that they have obligations towards students (M = 11. 78) such as taking care of students learning and teaching, helping them to grow, more than the permanent employees (M= 10.62). Contract employees also believe that they are expected to be flexible, that is, to do more than defined roles and responsibilities (M = 9.60), more than the permanent employees (M = 8.88). One reason for this difference may be that contract employees want to show more commitment and expects to have grater

job security. Survival of contract employees normally depends upon their performance and their concerns towards students and organization and this may be the other reason for this difference.

Contract faculties also have more expectations from institutions in the area of job content (M = 11.69) and also expects management to be professional and provide good leadership (M = 22.95), than the permanent faculties (M = 10.94 & M = 21. 78) respectively. The findings are not in sync with the common wisdom and even a number of researchers have speculated that permanent employees have higher expectations than temporary employees about what they should get from the organization (Steffy & Jones, 1990; Wotruba, 1990). However, reason for having more expectations and obligations by contract faculties could be the fact that those who work sincerely and put more efforts, and are committed to the job and organization, want more freedom in their work, expects more feedback, and also expects more support and recognition of their work from their management.

CONCLUSION

The research focuses on the exploring the content of psychological contract on the faculties of colleges of Royal University of Bhutan. The empirical research using exploratory factor analysis (EFA) revealed six obligations - job content obligations, social obligations, financial obligations, developmental obligations, fairness and equity obligation and good management

obligation, employees believe that organizations owe to them. In return employees believe that they owe to the organizations are - in-role obligations, loyalty and commitment, student's related obligations, flexibility and ideological obligations. It is important for institutions to understand and be sensitive towards the faculty's perceived expectations and obligations because perception of non-fulfillment of obligations may have negative organizational outcomes such as reduced motivation, and commitment, increased turnover, and loss of trust in the organisation.

The study further revealed that there is overall negligible difference in the psychological contract between permanent and regular faculties of the university. Only in some areas of psychological contract significant differences were found between the two types of faculties. Contract faculties have high expectations from their institutions in the areas of job content and good management. Contract faculties expects more job freedom and autonomy and also the kind of leadership and management style which further helps and supports them to contribute to the institutions. So institutions need to take into account of these expectations of faculties if institutions want to have more contributions from their contract faculties.

Findings of the present research should be taken with caution because of some limitations of the study. The study is based on survey method in which self

reporting on the questionnaire is used which may be affected by respondent's biases. Small sample size of this research is another weakness of the study. Psychological contract is dynamic in nature and so its nature and content keeps on changing. Whereas the present study is cross sectional in nature and this may not give true picture of the issue. In order to have better insight on the issue the present researcher recommends using longitudinal design. Other weaknesses mentioned in this research should be taken into account while doing further research in order to better insights on the issue.

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An Analytical study on ICICI and Bank of Rajasthan Merger

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ABSTRACT

'Merger and acquisition' is done by a team of skilled, talented and experienced industry professionals which revolutionizes corporate strategies and set new benchmarks in the business world. The primary objective of an organization towards M &A's is to create a niche of core competencies and improve transform the organizational culture to a better and improved form. It helps in design and develops systems in accordance to the changing face of business across all industrial sectors. An organization aims in Mergers and acquisitions are committed to extend the relationship with clients beyond the professional horizons to provide them high level of satisfaction and assurance. Merger deals are grouped into 3 categories viz, Voluntary Merger, Compulsory Merger and Universal Banking Model which is based on the motives. In this case, an attempt has been made to analyze the probable impact of strategic tools and features of the banks on pre and post merger performance.

Key Words : Bank, Merger, ICICI, Bank of Rajasthan, Growth.

Introduction

Merger has been identified as an important tool to achieve profitable growth of business and to limit competition, and increase in income with less investment, to gain economies of large scale to access foreign market, to achieve diversification and utilize underutilized market opportunities.

The merger of ICICI Bank and Bank of Rajasthan is substantially to enhance the network of ICICI Banks Branch which is already the largest private sector bank in India which especially strengthen its presence in northern and western India. To enhance the ability of the merged entity to capitalize on the growth opportunities in the Indian economy it would combine Bank of Rajasthan's branch franchise with ICICI Bank's strong capital base. Bank of Rajasthan is the third acquisition by ICICI Bank. ICICI Bank had earlier acquired Bank of Mdhura in 2001 and Bank of Maharashtra-based Sangli Bank in 2007.

LITERATURE REVIEW

Gallet (1996) had examined the relationship between mergers in the U.S. steel industry and the market power, which estimates the degree of market power from a system of demand and supply equations. Anup Agraval Jeffrey (1999) they examined the literature on long-run abnormal returns following mergers. The paper also examines explanations for any findings of underperformance following mergers. We conclude that the evidence does not support the conjecture that underperformance is specifically due to a slow adjustment to merger news. Saple (2000) found that the target firms were better than industry averages while the acquiring firm shad lower than industry average profitability. Overall, acquirers were high growth firms which had improved the performance over the years prior to the merger and had a higher liquidity. Beena (2000) attempts to analyze the significance of merger and their characteristics. The paper establishes that acceleration of the merger movement in the early 1990s was accompanied by the dominance of merger between firms belonging to the same business group of houses with similar product line.

Research Methodology and Analysis:

The study is on the basis of Secondary Data Collection. Secondary Data was collected from the Annual Report of Bank and various other sources. Research may be defined as the research for knowledge through an objective. The ratios taken by researcher in our research are analyzed by using Paired T-Test to investigate any significant difference. The data analysis is done using SPSS.

Research Objective:

- To study the pre and post Merger impact of Bank

- To understand the financial performance and differences

- To understand the importance of Merger in Bank

Data Collection:

The study is on the basis of Secondary Data Collection. Secondary Data was collected from the Annual Report of Bank and various other sources.

Data Analysis:

H_0 (1): There is no significance difference in financial performance amongst the selected Banks (with respect to their pre and post Merger Analysis)

H_0 (2): There is no significance difference in Earning per Share (EPS) amongst the selected Banks with respect to their pre and post Merger Analysis.

Descriptive Table:

		N	Mean	Std. Dev.	Std. Error
Net_Profit_Ratio	Pre-Merger	3	10.32	.542	.31
	Post-Merger	3	14.55	2.10	1.21
	Total	6	12.43	2.69	1.10
EPS_Ratio	Pre-Merger	3	35.99	2.98	1.72
	Post-Merger	3	45.84	9.99	5.77
	Total	6	40.91	8.52	3.47
Debt_Equity_Ratio	Pre-Merger	3	4.76	4.42	2.55
	Post-Merger	3	4.08	.16	.09
	Total	6	4.42	2.82	1.15
Current_Ratio	Pre-Merger	3	.57	.71	.41
	Post-Merger	3	.55	.67	.38
	Total	6	.56	.62	.25

Interpretation:

The above table provides us the Statistics regarding MEAN and Std.DEV of the ICICI banks with respect to their pre and post Merger Analysis. The above analysis shows The Net profit Ratio is deviated 2.69619 from 12.4383, Earning per Share Ratio deviated 8.52150 from 40.9183, Debt/Equity Ratio deviated 2.82537 from 4.4200 and Current Ratio is deviated by .62157 from .5633.

ANOVA :

The following ANOVA table gives us an insight regarding the existence of significant differences of banks financial performance in India with respect to their pre and post merger analysis. We have taken 95% level of significance to analyse the data.

ANOVA		Sum of Squares	df	Mean Square	F	Sig.
Net_Profit_Ratio	Between Groups	26.924	1	26.924	11.429	.028
	Within Groups	9.423	4	2.356		
	Total	36.347	5			
EPS_Ratio	Between Groups	145.337	1	145.337	2.670	.178
	Within Groups	217.743	4	54.436		
	Total	363.080	5			
Debt_Equity_Ratio	Between Groups	.694	1	.694	.071	.803
	Within Groups	39.220	4	9.805		
	Total	39.914	5			
Current_Ratio	Between Groups	.001	1	.001	.001	.974
	Within Groups	1.931	4	.483		
	Total	1.932	5			

Interpretation:

The above analysis shows that there is a significance difference in Earning Per Share Ratio with respect to their pre and post merger analysis so we accepts the $H_0(2)$.Where as in case of Debt/Equity Ratio and current we reject $H_1 (1)$ and accept $H_0(1)$ with respect to their pre and post merger data analysis at 95% level of significance. For the Net profit Ratio we reject $H_0(0)$.

Paired t-Test SPSS Analysis:

The Paired Samples t-test compares the means of two variables. It computes the difference between the two variables for each case, and tests to see if the average difference is significantly different from zero.

SPSS Output

Following is sample output of a paired samples T test. We compared the mean test scores before (pre-test) and after (post-test) the Merger completed a test preparation course. We want to see if our test preparation course improved the performance of Bank.

First, we see the descriptive statistics for both variables.

Paired Sample Statistics

		Mean	N	Std. Deviation	Std. Error Mean
Pair 1	BM_2	12.64	4	18.46	9.23
	AM_2	16.62	4	20.10	10.05
Pair 2	BM_3	12.32	4	14.70	7.35
	AM_1	13.09	4	16.15	8.07
Pair 3	BM_3	12.32	4	14.70	7.35
	AM_3	19.05	4	25.57	12.78

In the above analysis in paired Sample Statistics Box, the mean for the Pair 1 before Merger_2 is 12.6425 where for after merger _2 the mean is 16.6225.The Standard Deviation for the Before Merger_2 is 18.46426 and After Merger_2 is 20.10013. In Pair 2 Before Merger_3 is 12.3200 where for After merger _1 the mean is 13.0925.The Standard Deviation for the Before Merger_3 is 14.70034 and After Merger_1 is 16.15453.Where in Pair 3 Before Merger_3 is 12.3200 where for After merger _3 the mean is 19.0575.The Standard Deviation for the Before Merger_3 is 14.70034 and After Merger_3 is 25.57052. The number of participants in each condition (N) is 4.

Next, we find the correlation between the two variables.

Paired Sample Correlations

		N	Correlation	Sig.
Pair 1	BM_2 & AM_2	4	.998	.002
Pair 2	BM_3 & AM_1	4	.997	.003
Pair 3	BM_3 & AM_3	4	.999	.001

There is a strong positive correlation shows that the Bank performs best not only before merger but also after merger. Finally, we are comparing the results of the Paired Samples T Test. This test is based on the difference between the two variables. Under "Paired Differences" we see the descriptive statistics for the difference between the two variables.

Paired Sample Test

		Paired Differences					T	Df	Sig. (2-tailed)
		Mean	Std. Deviation	Std. Error Mean	95% Confidence Interval of Difference				
					Lower	Upper			
Pair 1	BM_2 - AM_2	-3.98	2.11	1.05	-7.34	-.61	-3.76	3	.033
Pair 2	BM_3 - AM_1	-.77	1.90	.95	-3.79	2.25	-.812	3	.476
Pair 3	BM_3 - AM_3	-6.73	10.89	5.44	-24.07	10.59	-1.237	3	.304

Pair 1:

The t value = -3.769; We have 3 degrees of freedom; Our significance is .033

Pair: 2

The T value = -.812; We have 3 degrees of freedom; Our significance is .476

Pair 3:

The T value = -1.237; We have 3 degrees of freedom; Our significance is .304

Interpretation:

The above table shows that in Pair 1 we have t-Value is-3.769 ,Degree of freedom is 3 and Our significance is .033.In Pair 2 we have t-Value is .-812,Degree of freedom is 3 and Our significance is .476. Where is Pair 3 we have t-Value is -1.237, Degree of freedom is 3 and our significance is .304.

As per the above analysis we can say that according to the standard all the significance value is less than .05 at 95 % level of significance which shows that there is a significance difference in financial performance amongst the selected Banks with respect to their pre and post Merger Analysis therefore we accept the null hypothesis $H_0(1)$.

LIMITATIONS

This research study is mainly based on secondary data derived from the annual reports of Bank .The reliability and the finding are contingent upon the data published in Annual report. Accounting ratios have its own limitation, which also

applied to the study. The study is limited to three years before merger and three years after merger only.

CONCLUSION

The case of ICICI Bank Ltd states that how an organization can become market leader by adopting some strategic tools like M&A. Primary reason for the merger between ICICI Bank and the Bank of Rajasthan, a major landmark in Indian Banking history, has occurred due to the regulatory interventions of the authorities. In this paper, the strategic similarity and dissimilarity of both ICICI Bank and the BoR are analyzed in detail. It is interesting to note that after the announcement of the merger, the BoR gained about 77% in price and ICICI Bank declined by 1.7%. The sharp increase in the share price of the BoR can be explained as a shift to the price offered by ICICI Bank. This states that the M&As have become a major strategic tool for achieving the same objective and it is imperative to avoid the possibilities of small banks from becoming the target of huge foreign banks which are expected to come to India.

- To create synergy, expanding the operations, cutting costs and economies of scale Firm need to go for the merger.
- (M&As) is the need of business enterprises for achieving the economies of scale, growth, diversification, synergy, financial planning, Globalization of economy,

- For achieving higher profit and expanding market share companies go for M&A's.
- To replace the competitor and to occupy the best position in the market M&A is the best strategic tool which a firm needs to follow.

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Do Investors' Appetite Influence Under Pricing: Evidence from the Indian Capital Market

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ABSTRACT

Indian capital market regulator, Security Exchange Board of India(SEBI) introduced many path breaking rules and regulations in the Indian equity market in last two decades. Book building of Initial Public Offers (IPO) and IPO Grading are two such things. In the Indian context, book built IPOs, provide different quotas for different types of investors. Thus, it is possible to capture the appetite of the retail as well as the institutional investors, separately. Gain in any script at the close of first day's trading compared its issue price, adjusted for market movement is called under pricing. In this research paper, it is investigated, whether under pricing in any company's IPO has any relationship with the retail and also the institutional investors' subscription level. All the IPOs in the time frame, when IPO Grading was mandatory, are chosen for the study. The analysis shows that only retail investor's subscription level affect under pricing.

Key Words : Retail Investors, Institutional Investors, Under Pricing; JEL Classification: G12,G14

Introduction

Stock markets play a major role in the development of national economies (Bohnstedt, 2000).Indian equity market has seen complete transformation, from the days of Controller of Capital Issues (CCI) to setting up of SEBI(Securities Exchange Board of India) in 1988 , to abolition of CCI in the post reform years of early 1990s. In the reforms initiated under SEBI, centralized power to determine pricing of equity issues gave way to information dissemination in the public domain. These led to stricter information disclosure norms, Book Building (BB) of Issues, IPO Grading etc.

Grading of fixed-income instruments is a universally accepted feature. However Indian Equity Market Regulator, Security Exchange Board of India (SEBI) is credited with, coining a new concept, i.e. grading of equity instruments. Financial performance of the company preceding the issue plays an important role, to signal investors regarding the quality of the issue. There are other formal and informal certification processes available to investors, to enable them to take an informed decision.

Some of these are reputation of the underwriter of the issue, venture capital firm affiliation, shareholding pattern of decision

makers (board of directors), reputation and track record of the lead manager of the issue, promoter group affiliation, analyst recommendation etc.

Unique features of the Indian Equity Market:

Number of investors in the equity market, compared to the total population is minuscule in India (about 1%). There is a significant mistrust among the risk averse investors as far as the equity market is concerned. The reasons for this trust deficit are manifold. Securities Exchange Board of India (SEBI), the statutory body that governs the equity markets in India, has taken several initiatives to bridge this deficit. Initial Public offer (IPO) grading is one such initiative. The primary equity market in India is also characterized by huge over-subscription of issues, sometimes running into hundreds of times. Until recently there were very few instance of IPOs getting withdrawn or cancelled.

Retail investors(investors who put less than Rs. 2 lakh in an IPO) lack capability to analyze, the relevant financial information disseminated in the public domain. "The unsophisticated investors either do not read the disclosure documents or lack the analytical sophistication to understand them. Furthermore, inferior investment decisions may occur due to the limited information processing capabilities of lay investors and the 'information overload' produced by the information disclosure" (Jain and Sharma, 2008).

IPO Grading:

SEBI introduced IPO grading on voluntary basis in April,2006. It was optional till 30th April, 2007. However, the experiment was not successful as borne out by the relevant data; although around 40 companies tapped the primary market in that time frame, only 4 companies approached Credit Rating Agencies (CRAs) for grading. These 4 companies also did not accept the grade assigned to them. Reviewing the result of the optional IPO Grading, SEBI made Initial Public Offer Grading mandatory with effect from May 1, 2007.However again in December 2013, SEBI made IPO Grading optional.

IPO Grading Framework:

Grade / scale	Grading Definition
5/5	Strong Fundamentals
4/5	Above Average Fundamentals
3/5	Average Fundamentals
2/5	Below Average Fundamentals
1/5	Poor Fundamentals

Table 1:IPO Grading Scale

According to SEBI guidelines, Credit Rating Agencies (CRAs)are supposed to analyse companies, for the purpose of grading on the following parameters:

a. Business Prospects and Competitive Position
    i. Industry Prospects
    ii. Company Prospects
b. Financial Position
c. Management Quality
d. Corporate Governance Practices
e. Compliance and Litigation History
f. New Projects—Risks and Prospects

The costs of the Grading are to be borne by the IPO bound firm. Therefore there is likely to be conflict of interest between the rating agency(which is supposed to grade the IPO) and the equity issuing firm, which is bearing the costs of this grading process. However there is a reputational stake for the rating agencies in the long term.

In India, according to SEBI ICDR(Issue of Capital and Disclosure Requirements),(2009) guidelines of IPO, for issues based on book building process, Qualified Institutional Bidders (QIBs) should have at least 50% of the issue allocated to them, retail investors should get 35% of the allocation. FIIs (Foreign Institutional Investors) participate in the IPOs, as part of the QIBs.

Literature Review:

Formal certification may be a new thing introduced by the Indian capital market regulator (SEBI), but informal certification in the form of past performance by the company, group affiliation of the company, reputation of the underwriter, in case of venture capital (VC)backed firms, the reputation of the VC, the reputation of the merchant banker, which is acting as the lead banker, analysts recommendation etc. is available. Informal certification plays an important role as a signal for especially retail investors. There is a plethora of literature available regarding informal certification's effect on a company's IPO.

Barry, Muscarella and Vetsuypens (1990) and Megginson and Weiss (1991) find that under pricing is lower for IPOs of firms with a strong venture capital participation than for those without such investors. That means post listing return of these firms are lesser. Contrary to this, a recent study by Lee and Wahal (2004), based on a much larger sample size concluded that, VC backed firms have a higher under pricing.

Regarding underwriter reputation, there is a vast body of research in the western world, among the prominent studies Logue (1973), Beatty and Ritter (1986), Titman and Trueman (1986), Masksimovic and Unal (1993) and Cater, Dark and Singh (1998) found that the under-pricing of IPOs brought to the market by reputable underwriters is lower than those brought by non-reputable underwriters. Loughran and Ritter (2004)found that during the dotcom bubble, the prestige of the underwriter went hand in hand with leaving more money on the table.

On analyst's recommendation, equity analysts give recommendation regarding Initial Public Offer (IPO) of firms. However more recommendations are seen post listing. Objectivity of these recommendations is in serious doubt as past studies have shown biased behaviour on the part of the analysts. Analysts can put buy or avoid call on the IPO, but past data shows analysts in majority instances had given buy call. For example, Bradley et al. (2003) find that analyst coverage is initiated immediately for 76 percent of IPOs during 1996 to 2000, almost always with a favourable rating.

As far as the, the relationship between the IPO grading and the under pricing is concerned, there are conflicting results. For example, IPO grading has no significance in pricing according to Khurshed et al (2011). However, according to Deb and Marisetty(2010), the grading significantly reduces under pricing. In a later study by Jacob and Agarwalla (2012), it was concluded that the grading process has failed to influence the under pricing phenomena.

Under pricing is more in the IPOs, where investor interest is more (Chowdhry and Sherman,1996). The pre-IPO investor demand influences the after-market performance of IPOs by influencing the first trading day returns and over-subscription ratio is used as indicator to describe the investor demand in pre-IPO market (Agarwal et al, 2008).

Objective of the Research:

Due to its unique structure, it is possible to get data of the institutional investors subscription levels as well as retail investors subscription level in book built IPOs, in India.

In this research paper it is explored, whether under pricing is a function of investor's(both retail as well as institutional) appetite.

Hypothèses of the Research:

Null Hypothesis 1:

Retail investor's subscription level do not have any impact on the extent of under pricing in IPOs

Null Hypothesis 2:

Institutional investor's subscription level do not have any impact on the extent of under pricing in IPOs

Research Methodology:

Data is collected from the Capital Market database. SPSS version 16.0 is used for the research purpose. Under pricing is calculated as the difference between the offer price and listing day closing price, adjusted for the difference in the benchmark index(BSE Sensex, in this paper) between this two dates (Khurshed et al, 2011).

The number of times subscription of the portion earmarked for the retail investors in the IPO, is taken as the proxy for the retail investors appetite. In this paper 171 companies which underwent IPO process between 2007 and 2013,when IPO Grading was mandatory are analyzed. We have considered all the Initial Public Offers(IPOs) in this time frame.
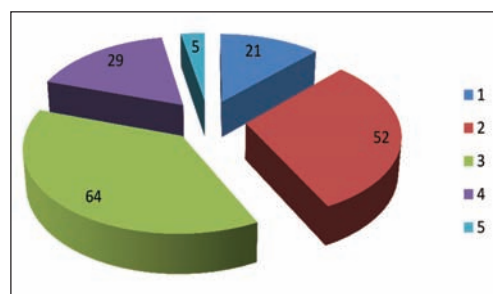
Empirical Results and Analysis:

Figure 1: Grade Wise Distribution of Companies

SPSS output of the Multiple Regression is as follows:

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.422[a]	.178	.168	41.1965448
a. Predictors: (Constant), QIB_ Appetite, Retail_Appetite				

ANOVA[b]						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	61269.841	2	30634.920	18.051	.000[a]
	Residual	283424.936	167	1697.155		
	Total	344694.777	169			
a. Predictors: (Constant), QIB_Appetite, Retail_Appetite						
b. Dependent Variable: Under_Pricing						

Coefficients[a]						
		Unstandardized Coefficients		Standardized Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	5.735	3.628		1.581	.116
	Retail_Appetite	1.593	.360	.436	4.420	.000
	QIB_Appetite	-.028	.135	-.020	-.208	.836
a. Dependent Variable: Under_Pricing						

From the spss output it is evident that the regression equation is statistically significant. Of the two independent variables, only retail investor's appetite is statistically significant, and it creates a positive impact on the dependent variable i.e. under pricing.

Conclusions:

The finding in this study is a significant contribution to the existing literature on under pricing in the Indian context. Although quite counter intuitively institutional investors appetite, did not influence the pattern of under pricing. This finding may lead to future research on subscription pattern and type of the institutional (QIB) investors.

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Do Investors' Emotions Determine their Investment Personality ?

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ABSTRACT

Behavioural finance is a new discipline in finance which studies the investor's biases and their investment decisions. Emotion is one of the psychological factors which create biases among individual's investment decisions. This paper tries to find out whether individual's emotions determine their investment personality or not. For that purpose, multi stage sampling technique is adopted to collect the data from 742 retail investors who are accessing Indian stock market. The collected data are quantitatively analyzed by using AMOS, STATA, SPSS and SEM model. Findings of this study suggested that investor's emotion based intuitiveness affects their investment personality.

Keywords: Behavioural finance, Decision making, Emotional swings, Investment, Personality.

Introduction

Traditional economic theories explain investor's rationality by taking all the existing information. But the proponents of behavioural finance disagree with the concept of traditional finance that investors are rational. Behavioural finance incorporates psychological concepts in to finance to investigate how individuals make decisions. Based on their findings, they conclude that individual's investment decisions are irrational. Further they provide evidence that some psychological factors which stimulate investment biases among the investors. Emotion is the primary psychological factor which affects the rationality of investor's successful investment decisions. The contribution of behavioural finance is not rejecting the fundamental work that has been done by proponents of efficient market hypothesis. Rather, it is to examine the importance of relaxing unrealistic behavioural assumptions and make it more realistic. "Emotional investing" means making investment decisions based on emotional

reactions, and not discipline and reason. These behaviors hinder one's ability to make sound decisions. Kaufman (1999) states that intense in emotions (extremely high or low emotional arousal) lead to increasingly bounded rationality as emotions obscure the decision maker's judgments. Lowenstein (2000, p. 426) implies that the emotions and feelings experienced at the time of making a decision 'often push behaviour in directions that are different from that dictated by a weighing of the long-term costs and benefits of disparate actions'. According to noble laureate Simon's (1986), limited rationality, person's choices are rational but are limited to their knowledge and perception capacity. This study tries to find out whether individuals emotions determine their personality or not. This study concentrates only retail investors who are accessing Indian equity market (secondary). Findings of this study will be useful to financial advisors, banks, mutual fund industry and regulators to educate their clients for successful stock market investments.

REVIEW OF LITERATURE

The terms 'mood' and 'emotion' are come under the affect. Though they often used interchangeably, but in reality they are distinct with each other (Beedie, Terry, and Lane 2005). Both emotions and moods explain the specific quality of goodness or badness. There is an immense study of research on emotions in psychological filed, but hardly very few studies explain emotions and individuals investment decisions. Emotions are a result of conditioning process (Frank 1988; LeDoux 1996). It is a psychological state of arousal which modifies individual beliefs towards a specific action (Elster 1998). Arnold (1960) has given another dimension to individual's emotional state. According to him, emotion is an intuitive action. Sometimes it rewards and some other time it hurts. Individual's emotion is a complex term which consists of cognitive, physiological, social, and behavioral aspects (Solomon 2000). For many circumstances, it is referred as feeling. But emotions are fully evaluative rather than physical or cognitive judgments (Frijda 2000). Further he added that "a rose smells good because it smells good" (Frijda 2000, 63). From this quotation, he explains that emotions are not a cognitive process. Each individual has some perceptions towards an object or state. Based on their perceptions, they explore positive or negative valences. For example, pessimistic or optimistic, happiness or sadness (Bradley and Lang 2000, 247). Elster (1998) is one of the pioneers in psychological researchers which consolidate individual's different emotional state. They are anger, hatred, guilt, regret, fear, pride, elation, joy, and love. He restricted these emotional states in to six instances. They are Cognitive antecedents, Intentional objects, Physiological arousal, Physiological expressions, Valence and Action tendencies. He concludes his studies that based on these features; one's

emotional state will be decided. Thereafter, many researchers try to focus on these emotional states and its influence of individuals decisions. Damasio (1994) study suggests that emotion play a significant role of decision making process. Damasio provides evidence of his findings that behavioral and physiological factors intervenes individuals emotional decisions. But Goleman (1995) argued that individuals decisions is based on their "emotional and intelligence quotient. Studies from Neurobiological (Damasio 1994; LeDoux 1996) specify that emotion improves individual's decision making process in two features. First, emotion drives an individual to make some decision when the decision becomes paramount. Secondly, emotion can help for optimal decisions. More psychological literature concludes that emotions affect individual's decisions (Elster 1998; Hermalin and Isen 2000). According to Slovic et al. (2004), emotions are experienced as a feeling state (with or without consciousness) and it is demarcating a positive or negative quality of a stimulus. In most cases, affective states can be categorized into positive (pleasant) and negative (unpleasant) feelings. Nevertheless, emotions are feelings about a particular circumstance or event (someone or something) that arise from cognitive appraisals of circumstances, whereas moods are more generalized non-specific states that are not directed at any particular stimuli (Bagozzi, Gopinath, and Nyer 1999; Siemer 2005; Sizer 2000; Watson and Clark 1997).

Phares (1991) defines personality as "It *is a pattern of characteristic thoughts, feelings, and behaviours that distinguishes one person from another and that persists over time and situation'*. Bailard, Biehli and Kaiser (1986) developed the Five-Way Model of personality. They classified investors in two dimensions: Level of confidence and Method of action. Level of confidence refers to investors' confident state and Method of action refers to their approach towards a decision making. Based on these two dimensions, Bailard, Biehli, & Kaiser, (1986) classified investors as Adventure, Celebrity, Individualistic, Guardian and Straight Arrow. Psychographic model of Myers-Briggs Type Indicator (MBTI) test the investors personality by using certain personality questionnaires. Marilyn Mac Grader, Barnewall (1987) categorized investors in to two types: active and passive investors. Big five personality model is given by P.T. Costa and R.R. McCrae, (1992). It is the pioneering model of all personality research. They categorize investors' personality as Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness. Active investors are creating the wealth while passive investors are safe guarding their ancestors' wealth. Costa and McCrae, (1992a, 1995, 1997); Digman, (1997); Goldberg, (1992); McAdams, (1992) consolidated the concept of personality in to big five model. The taxonomy of Big Five model is the most inclusive and accepted,

particularly for applied research (Barrick and Mount, 1991; Hogan and Hogan, 1991). The big five's are classified as extraversion, agreeableness, conscientiousness, emotional stability, and openness to experience. Most of the personality tests existing today measure one or more of the five factors (McCrae & John, 1992). Neuroticism deals with affect and emotional control. Less influence of neuroticism specifies emotional stability whereas high influence represents the possibility of experiencing negative emotions. Persons who are influenced by neuroticism are reactive, unstable, worried, unpredictable and sad. Resistant persons on the other hand need strong stimuli to be provoked (Howard & Howard, 1995). The term neuroticism need not necessarily refer to any psychiatric defect. It refers to negative affectivity or nervousness (McCrae & John, 1992).Extraversion is one such personality factor measures one's adventurous, assertive, frank, sociable and talkative attitudes. Introverts are just opposite to extraverts who are quiet, reserved, shy and unsociable (Costa & McCrae, 1992: 49). Openness is another such factor which measures the depth, breadth and variability in a person's imagination and urge for experiences. Other attributes of this factor are intellect, out of box thinkers and cognitively matured. People, who have high openness are broad minded, liberal and like novelty. At the same time, people who have low openness are conventional, conservative and prefer familiarity (Howard & Howard,

1995).The agreeableness scale is correlated to altruism, nurturance, caring and emotional support versus competitiveness, hostility, indifference, self-centeredness, spitefulness and jealousy (Howard & Howard, 1995). Agreeable people have the attributes of altruistic, gentle, kind, sympathetic and warm (Costa & McCrae, 1992: 49).Conscientiousness is a type of personality which measures goal-directed behaviour and control over impulses. Conscientiousness is associated with awareness and carefulness. High consciousness person concentrates on a limited number of goals but strives hard to reach them, while the flexible person is more impulsive and easier to persuade from one task to another. The more conscientious a person is, the more competent, dutiful, orderly, responsible and thorough (Costa & McCrae, 1992: 49).

Filbeck, Hatfield and Horvath (2005) have used the Myers-Briggs Type Indicator to find out the risk tolerance by using their different personality characteristics. Findings of this study suggested that individual's personality will explain some aspects of their investment behaviour. Sadi, Ghalibaf, Rostami, Gholipour, & Gholipour, (2011) explained the concept of personality that it is an important factor which influence the behaviour of investors. Carrie H. Pan and Meir Statman (2012) studied the risk taking attitude with high levels of Extraversion and Openness but low level

of risk taking associate with high levels of Conscientiousness. Further overconfidence associate with high levels of Extraversion while low confidence associate with high levels of Agreeableness. Simultaneously propensity for regret is low amongst investors with high levels of Extraversion, but high amongst investors with high levels of Conscientiousness. Duckworth and Weir (2011) explored the relationship of Conscientiousness with academic achievement, job performance, marital stability, and longevity. They suggested that Conscientiousness is stronger than the association between lifetime earnings and any other Big-Five factor. However conscientious people accumulate their wealth than less conscientious people, even after controlling the variables like income, years of education, demographics, and measures of cognitive ability. Following these stream of literature, it is clear that emotions and investment personality determine investor's investment decisions.

EMOTIONAL SWINGS FOR STATISTICAL ANALYSIS

Investor's different emotions explore their cognitions towards the market. Further emotions may be constructive or destructive in nature. How investors use their emotions will bring them a success or failure on their investment. (Source: Diversify to Take the Edge off Swings in Investor Sentiment, American Century Investments, 2012). These emotional swings are widely used by financial practitioners to educate their clients for successful investments. Here emotional swing variables are taken as the research variables in this study. There are 14 variables which influences the individual investment decisions over a period of time. It has been shown in figure-1:

Figure-1 Emotional swings
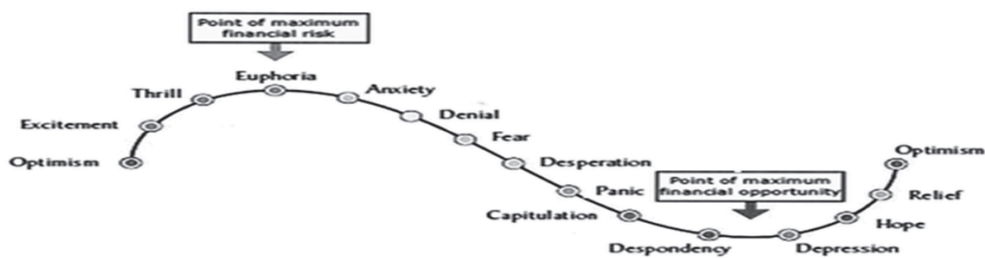
The emotional cycle of investors starts and ends with optimism. In between these optimisms, investors are influenced by different emotions like Excitement, Thrill, Euphoria, Anxiety, Denial, Fear, Desperations, Capitulation, Despondency, Depression, Hope, Relief etc. Among these emotional swings Euphoria, Despondency and Depression play a vital role on the success of investors' investment

decisions. Each emotion has its own positive and negative aspects. How investor's use these aspects will determine their investment success.

OBJECTIVE

The objective of this study is to find out the influence of investors different emotions on determining their investment personality.

RESEARCH VARIABLES

Factor analysis is a data deduction method used to minimize the given research variables (investor's emotions and big five personality factors) in to fewer factors with the help of standard rotation method called Varimax rotations. Emotional factors of optimisms Excitement, Thrill, Euphoria, Anxiety, Denial, Fear, Desperations, Capitulation, Despondency, Depression, Hope and Relief are reduced in to five factors. They are named as Indecisiveness, Clueless, Paranoid, Enthusiastic and Dogmatic emotions. Simultaneously big five personalities of Extraversion, Agreeableness, Neuroticism, openness and consciousness are christened as methodical and individualistic personality. How individuals' emotions influence their investment personality is explored in this paper.

RESEARCH METHODOLOGY

The present study has used descriptive method to analyze and interpret the data. This study focuses on cross-section analysis of influence of investor's emotions and demographics on their

personality development with the help of AMOS, STATA, SPSS and Structural Equation Modeling (SEM). Here investors are quoted as retail investors who are making investments in Indian stock market. The retail investors who are accessing Indian stock market from Tamilnadu are the population elements. Since the population elements are vast, multistage sampling technique is used to collect the sample data. A sample size of one thousand questionnaires was targeted to collect the data from various cities located in Tamilnadu. They are Chennai, Coimbatore, Trichy, Erode and Salem. Top five broking firm was identified in each place to collect a target of 200 questionnaires from each location. The questionnaires were distributed through E-mail, manually to investors; with the help of managers of broker's office to investors etc. Totally one thousand questionnaires were distributed, out of which 742 responses were received on error free. This added an effective response rate of 75 percent of the total sample.

DATA FOR STATISTICAL ANALYSIS

The questionnaire contains the statement which explains investor's emotional state variables and BIG FIVE personality variables. These variables were selected from the literature review. Five point likert scale was used to collect the data of investors' different responses on emotional swings and personality attitudes. The scale contains strongly disagree to

strongly agree. "Strongly agree" explains the variables which has strong influence on their investment decisions and "strongly disagree" explains the variables which has no influence on their investment decisions. First part of the questionnaire contains demographic variables and investor's emotional state. Second part contains personality attitude questions. Expert's advices were sought before designing the questionnaire. Based on their suggestions some modifications were made in the questionnaire.

RELIABILITY TEST

Cronbach's alpha test is a reliability test used to determine the reliability of the research data which includes investor's emotions and personality factors. The data is accepted if its reliability value of Cronbach's alpha is greater than 0.60. The Cronbach's values of investor's emotional variables are 0.64 and personality variables as 0.67. The Cronbach's value of investor's emotions and personality factors are greater than the 0.6. This suggests that the given research variables are satisfactory to proceed further analysis. AMOS, STATA and SPSS software's are used for analyze and interpretation of the research data. The Cronbach's reliability of emotional and personality factors are shown in the following table-1.

Table 1: Results of Reliability test

Factors	Variables	Cronbach's value	Standard deviations	Mean
Indecisiveness emotions(Y1)	Y11,Y12,Y13,Y14	0.82	3.956	12.07
Clueless emotions(Y2)	Y21,Y22,Y23	0.88	3.272	8.86
Paranoid emotions(Y3)	Y31,Y32	0.81	2.238	6.93
Enthusiastic emotions(Y4)	Y41,Y42,Y43	0.7	2.848	10.38
Dogmatic emotions(Y5)	Y51,Y52	0.63	1.695	7.71
Methodical (X1)	X11,X12	0.69	2.769	10.08
Individualistic (X2)	X21,X22,X23	0.64	1.919	6.92

The normality of the personality factors are tested by using Kolmogrov-Smirnov test. The normality values of the methodical and individualistic personality are 2.769, 4.080 and their p values are 0.000. This indicates that the normal distributions of the methodical and individualistic personality factors are accepted at 0.05 level of confidence.

Indecisiveness emotion: Indecisiveness emotion comprises of investor's anxiety, capitulation desperation and denial emotional state. How investors perceive the investment losses may explain these factors. In general these factors explain individual's negative emotions. Investors who are not influenced by this emotion are highly cognitive, optimistic and deliberatively approach the market.

Clueless emotions: Clueless or confused emotions include panic, euphoria and despondency. These factors elucidate investor's general perception of the market. Their perceptions are classified as optimistic and pessimistic. Investors who are not influenced by clueless emotions are optimistically approach the market. They may wait and watch the situations to make investment decisions. At the same time, pessimistic investors may sell their stocks to wind up their investments.

Paranoid emotion: Paranoid emotion comprises of fear and depression. Paranoid emotions explain individual's irrationality and delusion state of decision making. Hence it is called as negative emotion. This explains two intense phases of the individuals and market life cycle. This factor may bring high profitability or huge loss to the investors. High influence of this factor may induce the investors to make biased decisions. At the same time low influence make the investors to take error free decisions.

Enthusiastic emotion: Enthusiastic emotion explains one's activeness and positive approach towards the market. It includes excitement, thrill and relief. Investors intend to perceive the market as a positive one. Hence this is called as positive emotions. Enthusiasm is a psychological factor which induces the investors to perform much better than their previous efforts. If enthusiasm become over, then it may signal their immature intuitive behaviour.

Dogmatic emotion: Dogmatic emotion is also a positive emotion of high confident state. It includes optimism and hope. Optimism and hope are interrelated factors. These factors explain investor's cognition and experience towards the investments. It has two perspectives. Positive aspects of this emotion are: investors may adopt contrarian behaviour while negative aspects are herding behaviour.

Methodical Personality: Methodical Personality comprises of Extraversion, Agreeableness and Neuroticism. Methodical refers to efficient and disciplined behaviour. Extraversion, agreeableness and neuroticism are primary factors which will explain the investor's positive emotional state. Investors who are emotionally stable, cognitive and experienced may adopt methodical personality state.

Individualistic personality: Individualistic personality contains Conscientiousness and Openness. These are called as secondary factors which will explain investor's self-determining and sensible decision making skills. So it is called as Individualistic personality. Conscientiousness and openness explain the maturity of investor's investment decisions. These factors clarify the positive emotional attitude of the investors. These variables also explain their investment experience, cognitive, and goal oriented behaviour.

Hypothesis settings

Based on the above reliability result, the relationship between investor's different emotional and their personality state are tested by setting the following hypothesis.

Hypothesis: There exists a significant relationship of investor's

different emotional state with their investment personality.

Testing the hypothesis

A non parametric test of spearman correlation coefficient is used to find out the significant relationship of investors different emotional state with their investment personality.

Table 2: Estimated coefficient of investor's different emotional state with their personality factors

Variables	Methodical	Individualistic
Indecisiveness emotions	-0.0111	-0.3962*
Clueless emotions	-0.0602	-0.3786*
Paranoid emotions	-0.5694*	-0.3385*
Enthusiastic emotions	-0.0900*	-0.5181*
Dogmatic emotions	-0.3730*	-0.0764

Table 2 explores that indecisiveness and clueless emotions have correlated with individualistic personality (-0.3962, -0.3786) while paranoid (-0.5694, -0.3385), enthusiastic (-0.1900, -0.5181) and dogmatic emotions (-0.3730, -0.1764) have shown meaningful correlations with both the personality state. The mean correlation of investors different emotional state with their personality is acceptable at á = 0.05. This suggests that the given hypothesis is accepted. i.e.) there exists a significant relationship of investor's different emotional state with their personality at 0.05 percent level of significance.

Model Analysis

Regression model is used to find out the influence of investors different emotions on their personality. For this analysis dependent variables as investor's different emotional variables(Y) and independent variables are taken as investors methodical (X1) and individualistic personality (X2) at á=0.05.Findings reveal that the estimated value is greater than 0.05 which shows that investors emotions has shown significant influence on their investment personality. The regression equations are shown below:

$$X1 = 5.463508 + (.1768778)Y1 + (-.0543274)Y2 + (-.4038896)Y3 + (-.0557379)Y4 + (-.2288309)Y5$$
$$X2 = 5.955152 + (-.0924244)Y1 + -.1299763)Y2 + (-.1433772)Y3 + (-.3179534)Y4 + (-.0611296)Y5$$

The influence of investor's different emotional state with their personalities is shown in the following SEM model.

Fig 2: The Structural relationship of investor's different emotional attitude with their personality
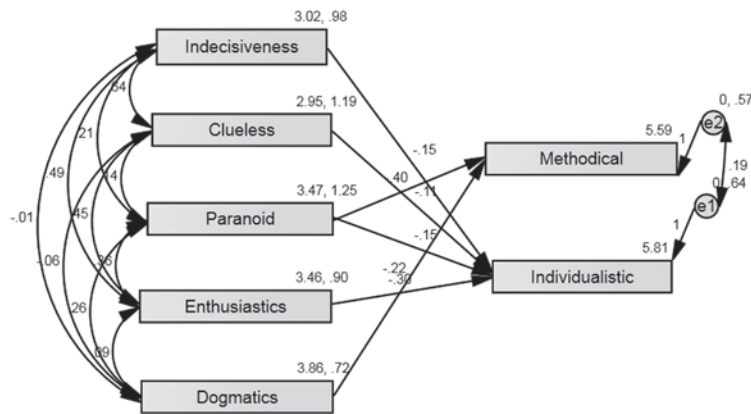
Fitness of the given relationship model

The SEM model presents the following results: IFI=0.98, CFI=0.98, GFI=0.98, AGFI=0.98, NFI=0.98. All these criterion values are greater than 0.95 which satisfies the threshold limit of greater than 0.95. The RMSEA value of this model is 0.0870 which is lower than the reference value of lesser than 0.10.This concludes that the given relationship model is perfectly fit.

RESULTS AND DISCUSSIONS

Investors who are influenced by indecisiveness emotions has shown negative relationship with individualistic and no relationship with methodical personality state. Frequency analysis of indecisiveness emotions suggest that around 43 percent of investors are neutral, 30 percent are not influenced and 27 percent are only influenced. This suggest that majority of investors have shown neutral emotional state. SEM model reveals that indecisiveness emotional state investors are not individualistic. Since indecisiveness emotional state investors are not individualistic, then they should be risk averse and intuitive. Findings of Eisenberg, Baron, and Seligman (1998) state that risk aversive behaviour are closely associated with anxiousness. This concludes that indecisiveness emotional state investors may be intuitive and risk aversive. These attributes resembles the behaviour of an irrational investor.

Clueless emotions show negative relationship with individualistic personality state only. Clueless emotions explain individual's confused mindset. Frequency analysis reveals that around 40 percent of investors are influenced, 30 percent are not influenced and neutrally influenced category. The relationship figure concludes that investors who are influenced by clueless emotions are not openness and consciousness in nature. This resembles the behaviour of irrational investors. Lack of

cognition, market inexperience's and failure of setting realistic financial goal may be the reason for the confused attitudes of investors.

Paranoid emotions are negatively correlated with both the individual's personality state. Frequency analysis of paranoid emotions indicates that around 42 percent of investors are influenced, 25 percent are not influenced and 33 percent are neutrally influenced. This shows that majority of the investors are influenced by paranoid emotions. Relationship diagram reveals that paranoid emotional state investors are not methodical and individualistic. This conveys that paranoid emotions may stimulate the investors to be intuitive and risk aversive. According to Lucey and Dowling (2005), investor's emotional decisions making is associated with their fear of avoiding the risky decisions. Lee and Andrade (2011) have also had a same opinion that negative emotion like a fear influence investors risk perceptions which directly affect their rational decisions. Fear makes the investors to stay away from uncertainty events prevailing in the market. Investors who have moderate fear will take rational decisions, while if it is high, then they automatically influenced by high emotions which leads them to be an irrational investor, Coget, J.F., C. Haag and D.E. Gibson, (2011). Though fear is looked as a negative emotion, yet it has had positive side. It makes the individual to deliberatively make decisions, Lerner, J.S. and D. Keltner, (2001), Lerner, J.S. and

L.Z. Tiedens, (2006), Katkin, E.S., S. Wiens and A. Ohman, (2001). Since methodical and individualistic explains individual's deliberativeness, then it is interpreted that investors who are influenced by paranoid emotions (negative emotions) are risk aversive and intuitive.

Enthusiastic investors have shown negative correlations with individualistic personality state. Frequency analysis of enthusiastic emotions reveals that around 40 percent of investors are influenced and not influenced category. This suggests that equity market comprises of equal percentage of enthusiastic and non enthusiastic investors. Enthusiasm is an outcome of overconfidence. Over confidence and enthusiasm brings aggressive behaviour. Aggressive behaviour reinforces the investors to adopt intuitive investment strategy. Enthusiasm is a type of excitement which changes the information process of a people and also affects their heuristics (Bless, Bohner, Schwarz, and Stack, 1990; Schwarz, 1990; Ruder and Bless, 2003). Further it may change their belief and risk assessments (Hogarth et al 2011; Johnson and Tversky 1983). It increases people's optimism, may also induce them to hold the already owned asset to forecast hitherto increased prices. If beliefs in higher prices lead them to buy, their forecasts can become in the short run. Eduardo B. Andrade, Terrance Odean, Shengle Lin (2012), advocates that excited investors wish to forecast higher prices. Thus the excitement generated by rapidly rising

prices may trigger beliefs that lead to larger asset pricing bubbles. From these, it has understood that enthusiasm leads to overconfidence. At one step further, our findings reveal that enthusiastic investors have the attributes of not conscious and openness. Hence it is concluding that enthusiastic investors are not individualistic in nature.

Dogmatic emotional state investors explore negative relationship with methodical personality state. Frequency analysis of dogmatic emotions indicates that 60 percent of investors are influenced by this emotional state. This is an interesting point that 60 percent of investors are not exhibiting methodical personality. This suggests that majority of investors are somehow influenced by intuitiveness on their investment decisions. Important point of this result is whether they use their intuitions in a productive or destructive way. Since most of the investors are not methodical and individualistic, then they should be immature intuitive investors. Immaturity intuitiveness arises may be due to lack of setting their financial goals, less cognitive and emotional instability. These attributes was previously explained in Expectancy-value model. According to this theory, individual behavior is closely associated with their goals (Carver & Scheier, 1998). Individuals try to shape their behavior in order to achieve the desired goal. Sometimes they may wish to stay away from changing the behaviour (pessimism). The central part of expectancies is a sense

of confidence or a hesitation of accomplishing the goal. If a person lacks confidence, again there is no action (Scheier, Carver, & Bridges, 2001). Optimistic individual always expect good outcomes. They wish to experience a more positive feeling. At the same time, pessimists expect bad outcomes, they supposed to be experience more negative feelings—anxiety, sadness, and despair (Scheier et al. 2001). By using this theory, it is concluded that investors who have negative relationship with methodical personality are intuitively (immature) approach the market.

CONCLUSION

Investor's cognition and emotions are considered to be two sides of a coin which determines investor's success and failure of their investments. Investor's investment personality explains these two attitudes. Most of the investor's of this study are influenced by intuitiveness on their investment decisions. In this study, 750 samples were taken to find out the influence of investor's emotions on determining their investment personality. Findings of this study reveal that investor's different emotional state is negatively correlated with their methodical and individualistic personality. This study too has some limitations. To begin with, investors in this study are limited to retail investors who access Indian secondary market from Tamilnadu region only. Secondly, the research data was restrained to collect from the five major cities of

Tamilnadu state only. Finally, emotion is the only psychological factor was taken to find out whether it influences their investment personality or not. The major implications of this study will be useful to retail investors to understand the influence of emotions on determining their investment personality, investment success etc. Further, this study is also useful to investment analysts, broking firm, and investment managers to create awareness among their clients on successful investments in equity market. At the same time, fund managers can use this study to design a suitable product to meet their clients' needs. This study brings to a close conclusion that investors who are influenced by intuitive emotions are not influenced by methodical and individualistic investment personality (Intuitiveness is not used in a productive way) I.e. investors are irrational in nature. The overall findings reveal that individual's emotions play a major role of determining their investment decisions.

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Aligning Key Success Factors with Value Activities for Value Creation and Capture: Case of the Indian Cement Industry

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ABSTRACT

Each industry is associated with distinctive decision-making aspects which drive the success of the industry members. These aspects are known as critical success factors (also known as key success factors), which concern the demand and competition related decision aspects. To succeed in an industry, a firm needs to meet these critical success factors through unique resources and capabilities. Analytic hierarchy process (AHP) is used to examine the roles of value chain activities to meet the key success factor and the link to success measured by economic value added, for the Indian cement industry.

Introduction

One of the biggest challenges facing managements of capital intensive industries is development and deployment of distinctive competencies aimed at achieving superior efficiency, quality, innovation and customer responsiveness. The nature and extent of resources and capabilities that are associated with distinctive competencies to earn a respectable positive Economic Value Added (EVA) often become very diverse. A cement manufacturer, for example, has to congregate the capabilities for procurement of input, manufacturing, management of inbound and outbound logistics, marketing and sales and technology development. A modern 3.5 million tons per annum integrated cement plant costs INR 12,000 million. It includes a split-grinding unit and 50-75 MW captive power plants. Many firms choose to outsource logistics and certain non-core activities arising out of the need for huge capital expenditure. Owing to growth in the infrastructure industry there has been a surge in the demand of cement. The industry has also seen large scale new entrants and consolidation. The economic environment of business has been found to be associated with threats from suppliers, buyers, intense price rivalry and new entry. Accordingly, there has been constant pressure on cost and price. The only silver lining has been a steady growth in demand. In terms of the industry effect, it can be said that the Indian cement industry has been associated with poor industry effects. Thus the only way firms can create positive economic value is by

superior resource and capabilities or in other words, positive positioning effect. Thus the key to success in cement business would be based on identifying critical areas and map the capabilities to the critical areas.

In a typical cement company, the strategic apex has two decisions to make. Firstly, to identify the factors driving demand and factors required to cope up with competition. Secondly, to map value chain activities to these factors, with a clear understanding of the link between critical factors and value chain activities. Thus, the firm can optimize deployment of resources in the value chain activities for better value creation.

The concept of articulating critical success factors as the basis for the competitive positioning of a firm has been in use in firms across sectors and industries (Hofer & Schendel, 1978). Identifying these success factors has however seemingly relied more on industry specific divination rather than some general framework. In true sense, the key success factors would be the magic key having potential to open the locks to value creation (Ghemawat, 1991).

The implied assumption on past work on identification of key success factors reveal of seeking to create own success factors. With the concept of transient advantage, the associated strategic framework is shifting rapidly (McGrath, 2013). In recent years, the business ecosystem model has emerged as a new approach to strategy (Zahra & Nambisan, 2012). This model is based on a structure of networks involving competitors as well as collaborators. These networks potentially cross what are conventionally seen as definite "industries", and therefore call for combinations of success factors potentially broader than those conventionally identified.

It also does not necessarily follow that the same success factors apply to all the participants in an industry, as different firms may be pursuing different objectives. Success is too often simplistically related to some measure of profitability. It is argued that the generation of free cash is a better indicator of corporate success. These elements may vary from firm to firm and over time.

There is a common saying, which goes like this – "new economy creates new rules of success", yet there is very little clarity on what the rules are. An orientation to handle the new economy is based upon the dynamics concerning consumers, corporation, capital and communication (Ohmae, 1982). Consumers - on-line customer contact trough information technology intermediation offers a facility to meet customer expectations more closely and more rapidly than ever before. Corporation – the corner stone being relationship management in a networked world. Capital – with boarders disappearing, there is rapid transferability. Communications – to the extent possible, automate the interactions and transactions between the members in the business

ecosystem with the use of information and communication technology.

In the business ecosystem ane new economy concept, there is a need to draw an analytical framework to explore factors that are both aligned to meeting demand and coping with competition, as against merely depending on conventional narrow market precise knowledge. The new orientation is designed around managing distinctive competencies, rather than being bugged down with control, reporting and ownership. This framework recognizes that critical aspects of success would change over time as shift in value emerge, necessitating looking beyond a generic list of short-lived attributes. That takes us to the shaping of the mental model of the people at the strategic apex, to appreciate the importance and influence of technology management, relationship management, and strategic acquisition, sharing and use of knowledge.

The notion of critical success factors became a well-known and widely used concept during 80's and 90's (or Key Success Factors - "KSF". While there are no doubt fine distinctions in the terminology, for the purposes of this paper the terms are used interchangeably). It was notionally an analytical tool to identify what it was that was required for successful entry into an industry or product-market. Typically if such success factors were not 'owned' the company would seek to acquire them.

The factors which can significantly affect the overall competitive position of a firm, on which the management of the firm has power to influence, are referred to as key success factors (Hofer & Schendel, 1978). Key success factors have also been seen as characteristics in an industry which when managed lead to success (Leidecker & Bruno, 1984). Hofer and Schendel had earlier applied the concept to strategic analysis. They suggested key success factors are important, specific to the firm, to the industry and to the business environment. They argued that analysis at each plane can discover a foundation of probable key success factors.

Grant followed a similar line of argument. He suggested that an analysis of demand (what it is that customers want?), and of competition (how does the firm survive?) would identify the relevant key success factors (Grant, 2010)**.** Grant's introduction of the notion of "survival" into critical success factors raises an exciting and essential distinction between survival and success. Quite often than not, variables identified as key success factors, are aspects concerning being in business, as an average player, rather than that relating to success. Arguably many of the key success factors articulated above can be seen as competitive necessities. One striking feature of many of the key success factors identified is their potential transience – they contain few unique or even long-term exclusive items. It may be argued that this lack of permanence potentially reduces the notion of key success factors to almost a shopping list of attributes of competitive necessities that

may from to time to generate competitive advantage.

Techniques to identify KSF – firstly, from the analysis of the demand, determine what customers want, and then from the analysis of the competition, determine what are the key competitive forces, and what the firm needs to do to cope up with competition (Grant, 2009). Shaping the priority and use of the KSFs are supreme to success. For the paper, the measure of success is taken as Economic Value Added (EVA).

The next critical step in the analysis is to identify the critical value chain activities which are necessary to meet the key success factors. A firm achieves sustainable competitive advantage by engaging in a set of value creating activities which are unique (Porter, 1985). The KSFs and the value chain for the Indian cement industry are aligned by using the analytic hierarchy process (AHP), with the objective of gaining practical managerial insights.

ANALYTIC HIERARCHY PROCESS

The analytical hierarchy process (AHP) is aimed at providing measures of judgment consistency; deriving priority among criteria and alternatives; and simplifying preference ratings among decision criteria using pair wise comparisons (Saaty, 1980). In this modeling process three levels, viz., impact, target and operation have been recognized (Cleland & Kokaoglu, 1981).

As regards the Indian cement industry, impact level is the Economic Value Added (EVA). KSFs are incorporated in the target level. Value chain activities are in the operational level. Figure 1 illustrates the model:

Figure 1. The AHP Model
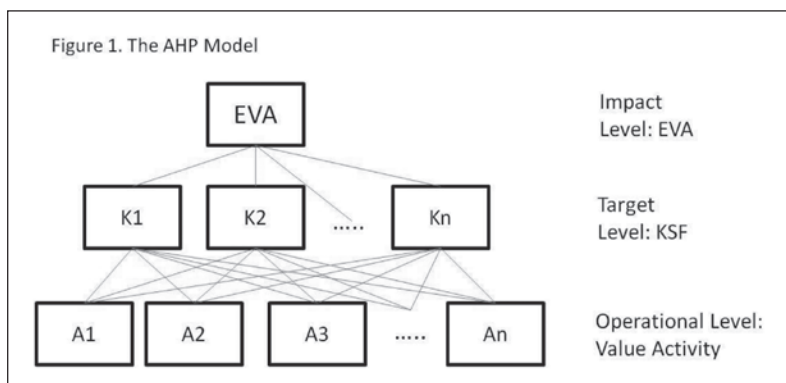
To demonstrate the utility of the AHP, the aforementioned conceptual is the basis of analysis for the Indian cement industry. The Indian Cement industry is a growing industry with thirteen firm concentration ration at around 90%[1]. The growth of the Indian cement industry is very closely linked to the GDP growth. It is expected

1   CMIE – Industry Outlook

that with a GDP growth of around 7%, there will be a multiplier effect to the extent of 8-9%[2]. Hence with relative higher GDP growth for India, the Indian cement industry has been signaling opportunity, attracting the attention of several multi-national majors. It has therefore become necessary for the incumbent companies to create barriers to entry by raising their efficiencies and improve performance. The AHP model is expected to bring the much needed insight to map the value chain activities to the KSF for maximizing EVA.

INDIAN CEMENT INDUSTRY[3]

The industry was notorious for shortages until decontrol and liberalization unleashed free enterprise to create new and large-scale capacities. The industry witnessed excess capacities building up around 2005-06. Excess capacities resulted in price rivalry in the form of large players reducing price to sell quantities as per their capacities, rendering small inefficient players un-competitive. This price rivalry was followed by consolidation at the top with the thirteen firm concentration ratio at round 90%, with presence of multi-national companies.

Larger companies moved to acquire capacities to consolidate their market shares. India Cements acquired Raasi Cements and Sri Vishnu Cements in 1998. Gujarat Ambuja Cements took over Modi Cements, Maratha Cements and DLF

Cements and also acquired a stake in ACC. Grasim Industries acquired L&T's cement division in 2003–04 and renamed it as a new company - Ultratech Cement Ltd. Besides, ACC acquired Orissa Government's IDCOL Cement.

From being a highly fragmented sector, the Indian cement industry has moved towards consolidation in the last five years with big ticket deals in front-line companies. Ultratech Cement Ltd., Ambuja Cements Ltd., A C C Ltd., Jaiprakash Associates Ltd., India Cements Ltd., Shree Cement Ltd., Century Textiles & Inds. Ltd., Ramco Cements Ltd., Lafarge India Pvt. Ltd., J K Cement Ltd., Birla Corporation Ltd., Binani Cement Ltd., and Dalmia Cement (Bharat) Limited are the top thirteen Indian cement companies, whose combined market share stand at around 90%. The domestic Indian cement industry, being the second largest market after China in Asia, became an attractive investment option for MNCs. Besides Holcim, MNCs like Lafarge, Heidelberg Italcementi set up shops to gain a foothold in the market.

The Indian cement industry has witnessed large scale merger and acquisition activities on the part of global cement majors, viz., Italcementi (the Italian major acquired 50% stake in Zuari Cement in 2001, and gained full control of the 50-50 joint venture in 2006); Lafarge (the

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2   ACC Ltd. – Presentation at the Motilal Oswal Investment Conference
3   Data captured from CMIE – Prowess, CMIE – IAS and website/ annual report of the Cement Manufactures Association.

French major acquired cement division of Tata Steel and Raymond); and Holcim (the Swiss major acquired a 35 per cent stake in ACC in strategic partnership with Ambuja Cements). The Indian cement industry is relatively insulated from international markets. Imports and exports of cement have a low significance for the Indian cement industry due to the high costs involved in transporting cement over long distances. Cement manufacturing is a highly energy intensive process. Electricity has been a critical and significant input in the process of cement production, with the average requirement at 110 units per ton. Considering low quality and low reliability of power from the state grid, most of the cement plants have captive power plants (CPP). The power from the CPPs has been found to be less expensive in the long run.

For the manufacture of one tone of cement, 1.5 tons of cement grade limestone and around 220 kgs. of coal are required. The industry has almost completely moved to dry process of cement manufacture. The industry's moves from wet to dry process and to set up their own captive power plants have helped energy conservation. Owing to the volatility in the coal market, the vulnerability of cement companies have increased as all their CPPs are coal based thermal power plants. With a view to contain their captive power cost, cement companies are increasingly looking out for alternative sources of energy like wind, solar, biomass & industrial wastes.

Table 1. Indian cement industry in brief

1	Installed Capacity (Mn. t.)	244.05
2	Turnover in 2011 (Mn. US$) around	19,500
3	Manpower Employed (Nos.) Approx.	1,20,000
4	Plants with Capacity of Million tonnes and above (Nos.)	102
5	Cement Production (Mn. t.) 2011-2012	179.87
6	Cement Plants (Nos.)	144
7	Companies (Members) (Nos.)	42

A panel comprising of experts from the Indian cement industry with 10-15 years of working experience in positions of responsibilities covering all value chain activities was constituted to gather data for the analysis in the AHP model. Clear guidelines were provided to the members in the expert pane for articulating the KSF (Leidecker & Bruno, 1984). The KSF thus determined listed in Table 2[4].

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4   Structured questionnaire were sent to 118 experts from 38 cement companies, out of which 82 were returned back. Out of the 82 respondents, personal interviews were conducted with 47 experts for finalizing the KSFs.

Table 2. The Key Success Factors of Indian Cement Industry

Key Success Factors (KSF)		
Description	Code	Explanation of the KSF
Economy in access to key input	KSFa	Access to economical limestone, fly-ash from thermal power plant and slag from steel plants.
Manufacturing efficiency	KSFb	Enhancement of critical parameters, viz., PPC Clinker factor%; PSC Clinker factor %; Thermal energy consumption – MJ/ Ton of clinker; Electrical energy KWH/ Ton of clinker; and CPP PLF %
Geographic diversity in plant location	KSFc	Since logistics is nearly 30% of the cost of goods sold, optimization of inbound and outbound logistics through optimization in location of plants considering supply and demand zones become critical to success.
Product Management	KSFd	Value added products including ready mixed concrete alongside mix of Portlnd Pozzolan Cement (PPC) and Portland Slag Cement (PSC) in the three demand zones, viz., infrastructure, commercial/ industrial, and housing.

The relevant activities in value chain are covered in the final stage of the framework and described in Table 3. With Porter's generic value chain as the basis, the activities were suitable customized for the cement industry. The next step is to bring forth the priorities concerning allocating resources.

Table 3. Schedule of key value chain activities in the Indian Cement Industry

Name of Activity	**Description of the Value Chain Activity**
Logistics	The activities of inbound logistics and outbound logistics
Procurement	Activities concerning procurement of key input
Manufacturing	The manufacturing process at the plants.
Marketing	The activities to evaluate new potential market segments, target most profitable ones and position with optimum configuration of the marketing mix elements.
R&D	The activities to make product and process innovations.
Human Resource Management	Activities concerning recruitment, on-boarding, career management, talent management and capability building, and productivity improvements.
Financial Planning & Control	The activities to administer the accounting cycle and treasury operations.
HSE	Activities concerning health, safety and environment

PAIRWISE COMPARISON

Constant sum method is a scale used for pair wise comparisons, where hundred points are assigned to a pair of variables, i.e., the total of relative weight for the two variables equals to hundred (Kocaoglu, 1983). For the purpose of this paper, the constant sum method was used owing to its higher resolution. In the constant sum method, the n(n-1)/2 pairs are first randomized for the n elements under consideration.

Step 1: Form six random pairs for the four key success factors (KSFbKSFc, KSFaKSFd, KSFcKSFa, KSFbKSFd, KSFaKSFb, KSFdKSFc). The instruments given to experts for pair wise comparisons in the following form:

"Please indicate your judgment of the KSF in pairs, in comparison to each other by dividing 100 points between them."

Step 2: Constant-sum measurements from the respondents were obtained from the respondents. The fully consistent measurements are as follows:

KSFb: 40	KSFc: 60
KSFa: 20	KSFd: 80
KSFc: 75	KSFa: 25
KSFb:33	KSFd:67
KSFa: 33	KSFb: 67
KSFd: 57	KSFc: 43

Step 3: Record the values into matrix A by comparing columns

Matrix A	KSFa	KSFb	KSFc	KSFd
KSFa	—	67	75	80
KSFb	33	—	60	67
KSFc	25	40	—	57
KSFd	20	33	43	—

Step 4: Obtain Matrix B by taking the ratios of comparisons for each pair from Matrix A. For example:

$$\frac{KSFa}{KSFc} = 25 \div 75 = 0.33$$

Matrix B	KSFa	KSFb	KSFc	KSFd
KSFa	1.00	2.00	3.00	4.00
KSFb	0.50	1.00	1.50	2.00
KSFc	0.33	0.67	1.00	1.33
KSFd	0.25	0.50	0.75	1.00

Step 5: Record data in the next matrix by dividing one element with the element in the next column. For example for the a/b column of Matrix C, the elements will be

$$\frac{1.0}{2.0} = 0.5$$

$$\frac{0.5}{1.0} = 0.5$$

$$\frac{0.33}{0.67} = 0.5$$

$$\frac{0.25}{0.5} = 0.5$$

Matrix C	KSFa/ KSFb	KSFb/ KSFc	KSFc/ KSFd
KSFa	0.5	0.67	0.75
KSFb	0.5	0.67	0.75
KSFc	0.5	0.67	0.75
KSFd	0.5	0.67	0.75
Mean	0.5	0.67	0.75
Standard Deviation	0.0	0.0	0.0

Step 6: Let the value of KSFd be 1 from Matrix C, and find out other KSF values by the ratios indicated as the mean of each column in Matrix C.

KSFd = 1

KSFc = 0.75 (KSFc/ KSFd) = 0.75 (1) = 0.75

KSFb = 0.67 (KSFb/KSFc) = 0.67 (0.75) = 0.50

KSFa = 0.50 (KSFa/KSFb) = 0.50 (0.50) = 0.25

Step 7: Normalize the relative values.
KSFa = 0.1
KSFb = 0.2
KSFc = 0.3
KSFd = 0.4

Two sets of dimensions are required for the computation at this stage. The relative contribution/ importance of KSFs to the EVA are reflected in the first dimension. The extent of impact of value activities on the key success factors are reflected in the 2nd dimension. The outcome is given in the subsequent tables:

Table 4. Relative position/ Priorities of Key Success Factors

Key Success Factor	Economy in access to key input	Manufacturing efficiency	Geographic diversity in plant location	Product Management
Weight	0.3218	0.1481	0.2753	0.2243
Rank	ONE	FOUR	TWO	THREE

Table 5. Comparative Contribution of Value Chain Activities to Key Success Factors

	R&D	Manufacturing	Marketing-Management	Procurement	Logistics	Human Resource Management	Financial Planning & Control	HSE
Economy in access to key input	0.104	0.114	0.135	0.221	0.160	0.069	0.072	0.084
Manufacturing efficiency	0.104	0.133	0.109	0.144	0.166	0.084	0.086	0.104
Geographic diversity in plant location	0.093	0.121	0.098	0.134	0.187	0.138	0.080	0.016
Product-Management	0.091	0.153	0.091	0.118	0.223	0.090	0.078	0.118

Table_4 shows a schedule of comparative magnitude of Key Success Factors and Table 5 has calculations of impact of value activities on Key Success Factors.

Table 6 shows the EVA weights and rank concerning the eight sets of value chain activities, which reflects the associated priority in the Indian cement industry.

Table 6. Relative position/ Priority: Indian Cement Industry

	R&D	Manufacturing	Marketing-Management	Procurement	Logistics	Human Resource Management	Financial Planning & Control	HSE
EVA Weight	0.095	0.125	0107	0.155	0.178	0.095	0.075	0.099
Rank	6	3	4	2	1	6	7	5

DISCUSSION

The comparative magnitude of the key success factors for the Indian Cement industry and attribution thereof to the capabilities have been determined with the results presented in the in the tables. The schedule of key success factors drawn, aids the strategic apex in directing investment in the specific activities. Economy in access to key input has been found to be most critical to EVA in the Indian Cement industry. Hence, investment should be committed to activities concerning access to economical limestone, fly-ash from thermal power plant and slag from steel plants. Following economy in access to key input is geographic diversity in plant location. Geographic diversity in plant location requires optimization of inbound and outbound logistics through optimization in location of plants considering supply and demand zones. There is a need resource allocation for project management ensuring locating plants to optimize inbound and outbound logistics costs. Following geographic

diversity in plant locations is product management. Management needs to deploy resources and capabilities for value added products including ready mixed concrete alongside mix of Portlnd Pozzolan Cement (PPC) and Portland Slag Cement (PSC) in the three demand zones, viz., and infrastructure, commercial/ industrial, and housing. Finally, manufacturing efficiency is the least important KSF in the industry. Still, it is influential to the success of a firm in the industry since it has been identified as one of the KSFs. This requires the management to deploy resources and capabilities in enhancement of critical parameters, viz., PPC Clinker factor%; PSC Clinker factor %; Thermal energy consumption – MJ/ Ton of clinker; Electrical energy KWH/ Ton of clinker; and CPP PLF %.

While allocation of resources and deployment of capabilities is the prime concern addressed in the paper, the management operating performance can be measured by using the priority matrix of the KSFs. The indicators captured in

the explanation of the KSF column in Table 2, has the potential to operational objectives, on the basis of which due scorecards can be build up extended with measures, targets and initiatives (Kaplan & Norton, 2007).

Inbound and outbound logistics management related set of activities is the most significant activity set succeeded by the value chain activities concerning procurement. The outcome is in line with the significance of KSFs. Manufacturing, marketing and HSE come 3rd, 4th and 5th in order of significance. Economy in access to key input has heavy contribution from procurement. Logistics contributed heavily to other three KSFs, viz., manufacturing efficiency, geographic diversity in plant locations and product management.

CONCLUSION

Configuration of a firm's value chain is critical to sustain advantage over competition (Porter 1980). Hence the use of information on activity dynamics can contribute significantly for appropriate configuration of the value chain. Having a clear idea of the rankings, the sensitiveness towards efficiency, quality and innovation in the activities with higher ranking would become obvious. In the Indian cement industry, procurement and logistics are the two most critical value chain activities. By developing resources for these activities, companies would be able to meet the demand conditions and cope up with competition and will thereby achieve competitive advantage and superior EVA.

When designing the functional strategies aimed at achieving superior efficiency, quality, innovation and customer responsiveness on one direction and developing distinctive competencies on the other direction, the priorities of value chain activities would aid aligning with the value creation and capture.

The key challenges facing the strategic apex on development and deployment of resources can be greatly addressed through the approach developed in this paper. The link from value chain activities to the EVA through the KSF, established in this paper gives meaningful insights into the associated dynamics. The use of the model to the Indian Cement industry illustrates its efficacy. The framework can be used for other industries with suitable modification in the design parameters.

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Microfinance: The Catalyst of GNH Index

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ABSTRACT

Microfinance services have witnessed burgeoning benefits to the poor and upliftment of the downtrodden. It has shown its positive impact on the living standards of the poor which is one of the prime indicators of Gross National Happiness (GNH) Index. In this paper, an examination on the impact of microfinance on the living standards of the poor is carried out to find out its real impact on GNH Index acceleration. Also, the paper investigates on the capability development of the poor at micro level through the fighting weapon microfinance for achieving happiness at individual level. The study relies on secondary data. The Human Development Index (HDI), SHG Bank Linkage Model (SBLP) and Agriculture Lending Programme of BDBL are the key indicators/sources of drawing inclusive inferences of the study. The study at the end unveils the importance of microfinance in bringing happiness at individual level and acceleration of GNH index.
Key words: *Living standard, Poverty, Microfinance, Gross National Happiness, and Human Development Index.*

Introduction

The real acceleration of microfinance across the globe can be traced back to the seventies with the introduction of this concept in Bangladesh by Prof. Mohammed Yunus[1], the recipient of nobel peace prize in the year 2006. Since then a number of countries have been found adopting this tool to fight against poverty. The term microfinance is typically a "banking for the poor". Its primary focus is on loans, savings, insurance, transfer services, and other financial services to the low income clients (Khandelwal, 2007). It is the "provision of thrift, credit and other financial services and products of very small amounts to the poor in rural, semi-urban or urban areas for enabling them to raise their income levels and improve living standards" (NABARD, 2000).

The concept of Gross National Happiness has been found emphasizing more on the inadequacy of measuring country's economic development through traditional theory Gross Domestic Product (GDP). Apart from GDP, the GNH

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1   Professor Muhammad Yunus established the Grameen Bank in Bangladesh in 1983; fueled by the belief that credit is fundamental human right. His objective was to help the poor escape from poverty by providing loans on terms suitable to them and by teaching them a few sound financial principles so that they could help themselves. Today the replicas of the Grameen Bank model operate in more than 100 countries worldwide.

concept has been found underscoring "four pillar" objective approach that is (i) Balanced Equitable Development, (ii) Environment Conservation, (iii) Preservation and Promotion of Culture and Heritage, and (iv) Good Governance in line with Millennium Development Goal (MDG) to introduce as the vital measurement indicators for measuring the overall economic development of a country. Besides, the four pillar objective approach, the Centre for Bhutan Studies, concatenating with an international group of scholars and empirical researchers in Bhutan has identified the nine provisional Gross National Happiness (GNH) indicators in the name of (i) standard of living, (ii) health of the population, (iii) education, (iv) ecosystem vitality and diversity, (v) cultural vitality and diversity, (vi) time use and balance, (vii) good governance, (viii) community vitality, and (ix) emotional well being. The present study has made an attempt to link microfinance with one of the nine provisional GNH indicators that is standard of living and finds whether microfinance in actual terms is helpful in increasing the living standards of the poor in India and Bhutan.

The term GNH was coined in 1972 by the fourth king of Bhutan, Jigme Singye Wangchuk with the objective of building Bhutanese economy to serve Bhutan's unique culture based on Buddhist spiritual values. There is no exact quantitative definition of GNH (Ross, 2005) but the elements that contribute to GNH are subject to quantitative measurement. One of the real instances of GNH would be low rates of infant mortality that correlates positively with subjective expressions of well being or happiness within the country. These two measures are motivated by the impression that subjective measures, such as well-being are more relevant and important than more objective measures, for instance consumption. Albeit, the GNH is not measured directly, the prime factors which are believed to lead happiness are taken into consideration for measurement. GNH has always been projected as a simple term but the wide range of its scope of defining "*happiness to all*" has made it slightly complex to operate practically.

Happiness is often misunderstood by many by dissecting completely from money component. It has to be understood that a vast majority of the poor are basically from the rural segment and the fundamental requirement of many is for their survival and not for their materialistic fulfillment[2]. Happiness has been perceived differently by the different economic strata of the people. The level of living standard of the poor could well be related with happiness. As the poor increase their living standards, they acquire happiness. The amelioration of the living standard and subsequently acquiring happiness by the poor could well be connected with meeting at least the two

2   Paper presented by Bandyopadhyay, Saugata on the topic "Microfinance in improvement of living standard and Gross National Happiness" in Third International Seminar on GNH in Nongkhai/Bangkok, Thailand, 22-28 November 2007.

bottom layers of the needs such as *physiological* and *safety* (Maslow, 1943). However, every individual tries to meet the upper layer of needs.

Objectives:

The study attains the following two objectives:

(i)   To study the scenario of poverty and living standards of the poor in India and Bhutan vis-à- vis other developed countries.

(ii) To study the impact of microfinance on the living standards of the poor in particular and on accelerating GNH Index in general.

Scope and Methodologies:

The study begins with exploring the level of poverty and living standard of the poor in India and Bhutan vis-à-vis in other developed countries. Also, it pores on the role of microfinance, especially the microcredit on the eradication of poverty. Besides, the level of standard of living of the poor is linked with the achievement of happiness at the individual level in particular and helps the increase of the GNH Index at large. To draw the appropriate inferences, the study mainly relies on the secondary data collected from the various sources such as CBS, UNDP, US Census Bureau, UNICEF, WB, MRD, BDBL, and NABARD.

Limitations:

Secondary data forms the main source of the study. A few data that relate to poverty level of the poor are found to display varying results by the reporting agencies. The reason may be the lack of uninterrupted updating of data by them. The very recent and updated data from the reporting agencies have not been found which would otherwise lead to draw the latest inferences from the study. Lastly, the findings of the study may not portray the global scenario of the impact of microfinance on the living standards of the poor as it basically concentrates on India and Bhutan.

Performance Analyses/Impact on capability building and Living Standard

The analyses of the study begin with tracing out of those countries where Human Development Index (HDI) is high as well as higher when it is compared with India and Bhutan. The HDI basically discusses the average achievement by a respective country in terms of *longevity[3], knowledge[4]*, and a *decent standard of living[5]*. At the later, the study demonstrates the overall scenario of microfinance and its impact on capability development and living standards of the poor. The study at the end traces the important aspects of human life that is happiness and tries to see whether microfinance or more appropriately, microcredit really helps the

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3   Longevity is measured by life expectancy at birth.

4   Knowledge is measured by a combination of the adult literacy rate and the combined primary, secondary, and tertiary gross enrolment ratio; and

5   Standard of living by GDP per capita (PPP US$).

poor in increasing their living standard and contributes actually in enhancing the index of Gross National Happiness.

a) The Human Development Index: Country profile

The close analyses of HDI (Table 1) reflects the respective country's position with regard to human development vis-à-vis their population. The developed countries, like Norway top the HDI ranking with an index figure of 0.955 followed by Australia (0.938) and Netherlands (0.921). All these countries are found to surpass the overall world HDI of 0.694. The important element that has been captured in all these highest HDI ranking countries is their population. Besides other factors, the controlled and minimal population of these respective countries might have helped gaining highest position in HDI. In addition, the other countries like Mexico (0.775) and Brazil (0.758) also lead the world HDI and stand at 61st and 85th position respectively.

Table-1: Human Development Index (HDI): The country profile

Country	HDI	Ranking#	Population (in millions)
Very high Human Development			
Norway	0.955	1	4.9
Australia	0.938	2	22.9
Netherlands	0.921	4	16.7
High Human Development			
Mexico	0.775	61	116.1
Brazil	0.758	85	198.4
Medium Human Development			
India	0.554	136	1258.3
Bhutan	0.538	140	0.7
World	0.694	-	6984.9

Source: Human Development Report, 2012. Published by United Nations Development Programme (UNDP). # Ranking out of 187 countries. ^ US Census Bureau, World population, 2012

India remains at 136th position in terms of human development with the vast population of 1,258 millions. The immense population, especially the rural mass with diverse cultural heritage, varied lifestyles, fluctuation of economic system, and different issues with respect to health and hygiene pose a challenge for human development in this country.

Bhutan, however with a total population of 0.7 million ranks 140th in HDI and stands far behind in human development. The minimal population does not seem to play a major role for human development in this country. In depth, the problems of the population need to be checked. The genuine problems of the population, whether it is minimal or large is well reflected in the living standards and health and hygiene conditions which are well captured in life expectancy in years (Table 2). The life expectancy in India and Bhutan are at the range of 66 years to

68 years which is quite low when compared with other high ranked HDI countries which ranges from 74 years to 82 years. This connotes low level of standard of living and poor health of the general population in India and Bhutan as compared to the countries listed in the table. The problem of population is further aggravated when "under 5 years mortality" rate is considered. This figure stands at 56 per 1000 live births in Bhutan and rising further to 63 per 1000 live births in India as compared to less than 20 per 1000 live births in the rest of the countries as listed in the table. The adult literacy rate which is one of the key indicators of human development is found to stand below the world literacy rate of 88.1 for India (62.8) and Bhutan (52.8).

The high rate of early school dropouts, discrimination involved in educating male and female child, and existence of acute poverty in the rural area are some of the plausible reasons for inadequacy of literacy rate in these two nations. Also, the GNI per capita income is not favouring much to these two SAARC countries in terms of income value of per individual as compared to other countries. All these factors unanimously support the prevalence of low standards of living and poor health of the people in particular and lower HDI in general in these nations.

Table-2: Human Development Index (HDI): Key indicators:

Country	HDI (Ranking)#	Health {(Life expectancy at birth)(yrs)}1	Under 5 years mortality (per 1,000 live births)2	Adult literacy rate, both sexes (% aged 15 and above)3	Income {(GNI per capita in ppp terms (constant 2005 international $)}4
Very high Human Development					
Norway	1	81.3	3	n.a.	48,688
Australia	2	82.0	5	n.a.	34,340
Netherlands	4	80.8	4	n.a.	37,282
High Human Development					
Mexico	61	77.1	17	93.1	12,947
Brazil	85	73.8	19	90.3	10,152
Medium Human Development					
India	136	65.8	63	62.8	3,285
Bhutan	140	67.6	56	52.8	5,246
World	-	67.9*	51**	88.1	11,574***

*Source: Human Development Index from Human Development Report, 2012, published by United Nations Development Programme (UNDP). # Ranking out of 187 countries. *United Nations World Population Prospects, 2010. **Childinfo, Monitoring the system of Children and Women, UNICEF, 2011. *** World Bank Report, 2012.*

*	Life expectancy at birth indicates the number of years a newborn infant would live if prevailing patterns of mortality at the time of its birth were to stay the same throughout its life.
***	Under five mortality rate is the probability per 1,000 that a newborn baby will die before reaching the age of five, subject to current age-specific mortality rates.
**	Adult literacy rate is the percentage of the population aged 15 and above (both sexes) who can, with understanding, read and write a short, simple statement on their everyday life.
#	GNI per capita is dollar value of a country's final income in a year (Gross National Income or GNI), divided by its population. Purchasing Power Parity (PPP) is an economic theory that estimates the amount of adjustment needed on the exchange rate between countries in order for the exchange to be equivalent to each currency's purchasing power.

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Existence of poverty: Country profile

Poverty is the outcome of capability deprivation (Sen, 1999). It indicates deprivation of basic capabilities that are extremely important rather than meager income. The revised standard criterion outlined by the World Bank in 2008 for identification of poverty is the people living on less than $1.25 per day. The estimation made by the World Bank vindicates that around 25 percent of the population in developing regions lives below the poverty line with a current threshold of $1.25 a day (United Nations, 2009). Despite the progress in hunger alleviation, the year 2010 witnessed approximately 925 million people who were suffering from it which was attributed to a sudden spike in global food prices and the onset of a worldwide economic crisis[6]. The poverty is very much pervasive in the African countries. In Asia, along with many other countries, poverty is very much prevalent in India and Bhutan. More than 20 percent of the people reside below the national poverty line (Table 3). Bhutan witnessed more than 10 percent population living below $1.25 per day whereas this figure stands at 33 percent in case of India. The poverty scenario gets more aggravated when the threshold limit is increased to $2 per day. The figure increased up to 50 percent for Bhutan and 76 percent for India which is quite high as compared to overall world poverty figure (48 percent). With majority of population residing in the rural areas, (more than 60 percent in both the countries) and comparatively (with urban areas) the existence of inadequate literacy rate, low standard of living, minimal inclusive growth and lack of industrialization and transportation along with corruption and socio economic disparities contributes more towards the prevalence of poverty in these nations.

Table-3: Poverty backdrop in high and medium HDI countries

Poverty estimates	Very high Human Development			High Human Development		Medium Human Development		**World**
	Norway	Australia	Netherlands	Mexico	Brazil	India	Bhutan	
Rural population (as % of total population)2011*	21	11	17	22	15	69	64	48.0
Population living below US$ 1.25 a day (%), 2010-2011***	n.a.	n.a	n.a.	1.2	6.1	32.7	10.2	20^
Population living below US$ 2 a day (%), 2000-2009**	n.a.	n.a	n.a.	9	10	76	50	48
Population living below the national poverty line (%), 2009-10#	n.a	n.a	n.a	51.3	21.4	29.8	23.2	-

6   United Nations Food and Agricultural Organization. (http://www.bread.org/hunger/global/facts.html)

Impact of microfinance on poverty and living standards of the poor:

Most of the world's poor are found engaging in self employment. The maximum share of their hard earned money from different micro business set up such as goatery, piggery, poultry, weaving baskets etc. goes for their basic survival and finally there is no amount left at their disposal to expand their business and improve their quality of life. Moreover, poverty remains with them mainly because of the scarcity of financial support from the formal financial institutions. Traditionally, the poor were termed as "Non-bankable" by most of the formal financial institutions which led to very low inclusive growth. However, with the passage of time, the government and the policy planners have been found emphasizing more on designing small financial products that suit the capability development and eradication of poverty. Apart from introducing small products, effective delivery models are also designed to guarantee both delivery mechanism and recovery pattern. The success story of microfinance delivery models, those designed in Bangladesh, has led to the adoption of the models by most of the countries worldwide to eradicate poverty and enhance the living standards of the poor. About 21 percent of the Grameen Bank borrowers managed to lift their families out of poverty within about four years of participation in microfinance programme (Khander, 1998). Among many south Asian countries, India is not very new in the field of microfinance whereas Bhutan is at its nascent stage in this field.

Proliferation of Microfinance in India: Impact on capability development and improvement in the living standard of the poor

The small scale provision of finance to the poor is not a new phenomenon in India. SEWA[7], the oldest microfinance organization in India, was established in Gujarat in 1972, is a trade union that started first organizing self-employed women in India. Although the concept of Self-help was discovered by social-

7   Self Employed Women's Association (SEWA) in Gujarat was founded by Smt. Ela Bhatt and registered as a trade union in 1972 in Ahmadabad. For the last three decades it has been trying to organize women workers engaged in various trades in the informal economy in order to integrate their work in the national economy.

development NGOs[8] in 1980, the introduction of SHG Bank Linkage Model by NABARD in1992 and its success in subsequent years of its operation in terms of its outreach and increasing living standard of the poor has made this model as one of the largest microfinance programmes in the world. The high repayment rate of more than 80 percent, as claimed by NABARD, is the key feature of this programme. This indicates clearly the benefit obtained by the poor which not only helps them in increasing their living standard but also empowered them in different sphere of their life.

The progress of microfinance, under this model (SBLP) as well as through other MFIs in recent years could be observed from Table 4. As on 31st March, 2012, more than 79 lakhs SHGs had saving bank accounts with an outstanding savings of Rs 65.51billion as against over 50 lakhs of SHGs with savings amount of Rs 37.85billion as on 31st March 2008, thereby, recording a growth rate of around 12 percent and 14 percent respectively. Similarly, during 2011-12, the Commercial banks including Regional Rural banks and Cooperative banks financed more than 11 lakhs SHGs with bank loans of Rs 165.35 billion as against more than 12 lakh SHGs with bank loans of Rs 88.49 billion during 2007-08. These figures delineate a negative growth rate of 4 percent in the number of loan taking SHGs and positive growth rate of 15 percent in their loan amount. The overall performance in both of these components indicates proliferation of microfinance in terms of helping the poor in accessing small finance of their need and enhancing their living standard in the Indian economy.

Table-4: Progress of the Micro-Finance in India

SBLP Model						
Sl. No	No of years	Savings A/c with banks as on 31st March:		Loan disbursed during the year:		Loan outstanding with SHGs as on 31st March:	
		No. of SHGs (in lakhs)	Amount (in billions)	No. of SHGs (in lakhs)	Amount (in billions)	No. of SHGs (in lakhs)	Amount (in billions)
1	2007-08	50.10	37.85	12.28	88.49	36.26	170.00
2	2008-09	61.21	55.46	16.10	122.54	42.24	226.80
3	2009-10	69.53	61.99	15.87	144.53	48.51	280.38
4	2010-11	74.62	70.16	11.96	145.48	47.87	312.21
5	2011-12	79.60	65.51	11.48	165.35	43.54	363.40
	Growth Rate (%)	*11.90*	*14.25*	*-4.23*	*15.28*	*5.03*	*20.19*

8   Mysore Resettlement and Development Agency (MYRADA) in Karnataka and Professional Assistance for Development Action (PRADAN) in Rajasthan were the pioneers.

| MFI Model: Profile of Microfinance Institutions				
Sl. No.	No of years	Loan disbursed during the year:		Loan outstanding with MFIs as on 31st March:	
		No. of MFIs	Amount (in billions)	No. of MFIs	Amount (in billions)
1	2007-08	518	19.70	1109	27.49
2	2008-09	581	37.32	1915	50.09
3	2009-10	691	80.63	1513	101.48
4	2010-11	469	76.05	2176	106.89
5	2011-12	465	52.05	1960	114.50
	Growth Rate (%)	-4.21	30.41	13.50	43.50

Source: *Compiled from "Status of Microfinance in India"- NABARD Annual Report 2007-08 to 2011-12*

Note: *Actual number of MFIs availing loans from Banks would be less than the figures shown as most of MFIs avail loans from more than one Bank.*

The loan outstanding figure portrays the fact that in the current year, 2011-12 around 44 lakh SHGs had the outstanding bank loans of Rs 363.40 billion as against 36 lakh SHGs with bank loans of Rs 170 billion in 2007-08. A growth rate of around 14 percent were observed in terms of number of SHGs having outstanding loans with the banks with 44 percent growth in loan outstanding amount over the period of five years. The positive growth rate of loan outstanding both in number and amount indicates that an increased number of SHGs have participated and availed the loan from SBLP. This also shows the success of the same programme in terms of outreach. The programme has benefited the poor.

Along with the direct finance to SHGs, the banks in recent times are also found financing Microfinance Institutions (other model of NABARD) for on-lending to SHGs and other small borrowers. Over five years, from 2007-08 to 2011-12, the number of loan receiving MFIs though decreased but an upsurge of 30 percent has been registered in terms of loan disbursement to them. Along with the growth of loan disbursement, a positive growth of 44 percent was also recorded in loan outstanding amount with MFIs. These entire phenomena, therefore, vindicate the fact that more poor have been served by the tool of microfinance to increase their living standard in particular and eradicate poverty in general. Micro financial services to the poor can be the magical formula in lifting them up from poverty and also to mainstream them with country's economic activity (Park, 2001; Shaw, 2004; Ahmed et al., 2006; Coleman, 2006; Haitt & Woodworth, 2006). It is claimed that this new paradigm of unsecured small scale financial service provision helps the poor people to take advantage of economic opportunities, expand their income, smoothen their consumption requirement, reduce

vulnerability and also empowers them (Littlefield, Morduch, & Hashemi, 2003; ADB, 2004). Improved access of microfinance can enable the poor to smoothen their consumption, manage their risk better, gradually build their asset base, develop their micro-enterprises, enhance their income earning capacity, and enjoy an improved quality of life as well as stable family units (Robinson, 2001).

Proliferation of Microfinance in Bhutan: Impact on capability development and improvement in living standard of the poor

Bhutan is at its nascent stage in the field of microfinance. It was only in the year 1988, a full-fledged corporation in the name of BDFCL (Bhutan Development Financial Corporation Limited), now (from, June, 2011) renamed as BDBL (Bhutan Development Bank Limited) has been established in Bhutan mainly to cater the needs of more than 60 percent of the rural poor of the country. The BDBL since its establishment has been helping poor in accessing small finance through its Agricultural Lending Division (ALD). The three financial products that have offered by this division are: (i) Small Individual Loan (SIL), (ii) Commercial Agricultural Loan (CAL), and (iii) Group Guarantee Lending and Saving Scheme (GGLS). The GGLS is a replica of the Grameen Bank of Bangladesh.

As BDBL is the sole institution in Bhutan that provide credit to small and medium-scale industrial and agricultural activities in all the twenty districts – particularly in rural areas, the financial performance of it depicts the actual state of microfinance in the country. Table 5 clearly indicates the profile of Agriculture Lending Programmes of Agricultural Lending Division (ALD) of BDBL. Over the span of five years that is from 2008-2012, a positive growth has been depicted in almost all the financial indicators. Loan availed by the rural population those come from the poor financial background has been increased by 48 percent in which the number of active credit accounts registered a growth rate of 19 percent. This clearly shows the interest of the poor in availing credit from the bank. The increase participation in the credit has also been observed through number of new loan disbursed which has registered a growth of 21 percent in five years. Despite credit, deposits from the rural part, also act as one of the important financial performance indicators of growth. A growth of 76 percent has been recorded in savings deposits with 57 percent increase in the number of rural depositors in five years. All these indicators delineate the fact that rural population is increasingly being served by small finance in Bhutan by BDBL. Also, this draws the inferences of acceleration of microfinance in Bhutan. The overall on-time recovery rate of more than 90 percent in all the five years indicates sound repayment performance of clients those served by BDBL in particular and healthy financial status of the bank in general.

Table-5 : Profile of Agriculture Lending Programme of BDBL (Amount in millions)

Outreach		Years					
		2008	2009	2010	2011	2012	Growth rate (%)
Loan disbursement	Total	926	1000	2059	1934	3281	37.57
	Rural	460	599	1387	1406	2145	48.18
	% of rural to total	*49.68*	*59.90*	*67.36*	*72.70*	*65.38*	*7.71*
Loan outstanding	Total	2499	2818	3640	4542	6247	25.98
	Rural	715	1012	1858	2479	3432	49.68
	% of rural to total	*28.61*	*35.91*	*51.04*	*54.58*	*54.94*	*18.81*
No. of Active credit Accounts	Total	18627	19923	25292	28895	34790	17.60
	Rural	16515	17315	22714	26360	31949	19.01
	% of rural to total	*88.66*	*86.91*	*89.81*	*91.23*	*91.83*	*1.19*
No. of new loan disbursed	Total	7833	8588	13280	13206	15637	19.88
	Rural	7288	7595	12370	12460	14799	21.07
	% of rural to total	*93.04*	*88.44*	*93.15*	*94.35*	*94.64*	*0.99*
Deposits	Total**	137	266	1450	2302	4423	148.61
	Savings	95.99	175.05	334.38	576.21	899.41	76.23
No of depositors	Total	10947	15879	32978	44545	64181	57.91
	Rural	10654	15222	31582	42598	60946	57.10
	% of rural to total	*97.32*	*95.86*	*95.77*	*95.63*	*94.96*	*-0.51*
On-Time Recovery Rates (%)	Branch operation	*91*	*91*	*93*	*94*	*95*	-

Source: *Self calculation from BDBL Annual Report, 2008-2012*
*** indicates Fixed + Recurring + Savings and Current deposits.*

Besides BDBL, a few informal organizations and NGOs have been formed in Bhutan in the recent decades among which two NGOs, such as 'Tarayana Foundation (TF)' and 'The National Women Association of Bhutan (NWAB)' are actively involved in providing microfinance. These organizations mostly play the role of promoter, skill trainer, and capacity builder in upbringing the self Help Groups (SHGs).

Microfinance and GNH:

The analyses of the secondary data from the various sources suffice the fact that poverty is very much pervasive in two of the south Asian countries, India and Bhutan. High rate of financial exclusion, inadequate literacy rate, and low income per person indicate lower standards of living of the citizens of these countries. Despite all these, countries' effort in improving living standards of the poor

through effective tool of microfinance has proved to be salubrious in the long run. The poor in both the countries are found enhancing capability development and increased their living standards through the provision of microfinance, especially microcredit. Definition of happiness in itself is not very concrete and varies from individual to individual. It is a subjective term and always poses a problem with regard to its quantification. For the poor who live in acute poverty, the most important drive for happiness could be their upliftment of the living standards. For a wage-based labourer, happiness could be an ability of earning bread and butter to feed himself and his family, ability to send children in the school at least for primary education, ability to free from the avaricious moneylenders, and streamlining with the formal financial institutions for most needed small finance. As provision of small scale finance to the poor, especially microcredit has proved to be an effective tool for meeting ground level requirements in particular and increasing living standard of the poor in general, the microfinance as a whole can be taken as one of the important factors that aid in increasing the GNH index.

Conclusion /Recommendations:

The happiness, though differ from person to person, cannot be achieved without capability development of the poorest class. The country where most of the population resides in rural areas and poverty is spread throughout, the capability development of this class plays a crucial role in bringing happiness to people and holistic development in the country. As it has already been observed, poor perceived happiness in terms of fulfilling their basic needs, (though advanced needs always tend to arise once the lower needs of human beings are satisfied) the provision of small finance to the poor could be one of the best alternative for the government which not only fulfill in meeting their basic needs but also helps in enhancing their living standards. It has been perceived that there exist a positive correlation between living standards of the poor and happiness. Happiness tends to increase with the increase in the living standards. Microfinance plays a significant role in increasing living standards of the poor which ultimately will bring happiness among the poor. This component is certainly a prerequisite condition for Gross national happiness albeit it may not be the sufficient condition for other pillars of GNH. The study, however, upon analyzing the data and drawing inferences from the study, recommends the following suggestions.

➢ The capability development of the vast poor, especially representing rural part, is very much essential as it plays crucial role in bringing happiness among these classes. The different stakeholders such as NGOs, BDOs, Government, and banks should involve rigorously in capacity building of the poor through appropriate trainings.

➢ The policy planners and the government should start emphasizing more on the capability development of the poor. A special section is to be added in the Five Year Plan that encompasses all the components of capability development of the poor.

➢ The high rate of financial exclusion should be reduced and the poor from the rural areas should be streamlined with formal financial institutions. This not only helps them in accessing small financial products of their choice from the formal financial institutions but also relinquish them from the exorbitant interest rate as charged by the avaricious moneylenders.

➢ Happiness Index is expected to accelerate faster if genuine poor of the society are streamlined with formal financial system, especially with microfinance programmes. To do this, proper identification of the needy and genuine borrowers for the programme should be the primary objective of all the authorities who implement and run such programmes.

➢ The NGOs should play a decisive role in promoting and nurturing poor and help them accessing finance from the formal financial institutions. NGOs can play a decisive role as an effective delivery mechanism in rural development as they have innate advantage to involve people and ensure their participation in the agencies (Stephen, J.K. 2005).

➢ As happiness is directly related with microfinance, the government or the respective authority should work actively on simplifying the process of provisioning small scale finance to the poor.

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Sino-Indian relations:
A Game Theory Perspective

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ABSTRACT

In this paper, various aspects of Sino-Indian relationship and the strategies that they have adopted to balance the various issues facing them from a Game Theory perspective, has been covered. Situation in South-East Asia and Africa, both of which are house to most of the developing and the underdeveloped countries of the world is discussed. We see how political non-interest has led to India not being regarded as seriously as China in these countries. Then we see why despite being an economic behemoth, China can't afford to ignore India economically and will suffer an equal loss, if not more, if it were not to be. We also see a three dimensional game for global supremacy played between India, China and USA and how each is trying to get the maximum out of their complex relationships. Finally, we see a model describing the future of the Sino-Indian relationship and how cooperation will lead to a win-win situation for both the players and has implications for the current global order too.

Theoretical background: Game Theory

"Game Theory" is the study of models of conflict and cooperation between intelligent rational decision-makers which can be individuals, groups, companies, countries etc. by considering these interactions to be games. It is a subject which helps us in dealing with real life situations, which are actually instances of games. Each game has players who are the stakeholders in that situation, and depending upon the outcome of the game each player gets his outcome or payoff. Most games are a combination of "chance", "skill" and "strategy" in varying proportions. For example, winning or losing a game on the basis of tossing of a coin is a pure chance situation; while a short distance running competition is a game of pure skill. Strategy becomes most important when there are many players in a situation and each one is having his own decision making capability, and the decision of one player is going to affect that of others.In Game Theory, we are not concerned with games that are purely based on chance or skill. Game Theory is thus the analysis of interactive decision making in which each player knows about the cross effect that his decision is going to create on the others.

Basic Terms used

a. Strategies:

These are the choices that are available to the players. These strategies are dependent on the choices made by other prior players.

b. Payoffs:

Each player involved in the game is going to have some outcome that will befall on him. A numerical scale is used to depict each conceivable outcome for each player. The number associated with each possible outcome is called that player's payoff for that outcome. Higher payoff means better outcome.

c. Rationality:

Each player aims at achieving the highest payoff possible for him in the situation. Game Theory assumes that the decision makers or the players are behaving "rationally" i.e., they are perfect calculators and flawless followers of their best strategies. Predicting an outcome becomes difficult if the decision maker is not capable of thinking and taking decisions rationally.

d. Equilibrium:

It means that each player is using the strategy that is the best response to the strategies of the other players. Thus, an equilibrium can only be achieved is the game is being played between "rational" players.

e. Nash Equilibrium:

It is a list of strategies, one for each player, such that no player can get a better payoff by switching to some other strategy that is available to him while all other players adhere to the strategies specified for them in the list.

f. Dominance:

In some games one strategy is uniformly better than or worse than another. The uniformly better strategy is known as the "Dominant Strategy", while the worse strategy is called the "Dominated Strategy".

SINO-INDIAN RELATIONS

Relationship between India and China has been full of contradictions. On one hand our trade grows each fiscal, while on the other hand China has been consistently pushing India on border issues. On one hand we cooperate on the issue of climate change, while on the other, we are caught in a web of conflicts in South China Sea. We cooperate on multiple issues as part of BRICS; still China's constant support to Pakistan creates an environment of tension between us.

SINO-INDIAN BORDER DISPUTE

There are three important regions where border disputes between India and China are creating problems:

I.   Eastern Sector – Arunachal Pradesh

II.   Middle Sector – Sikkim

III. Western Sector – Aksai Chin

Eastern Sector

Arunachal Pradesh (90,000 sq. km), which China refers to as "South Tibet" is the major area of contention between India and China. China has always demanded from India to transfer at least the "Tawang Tract", even if not the whole state. They are adamant that if India doesn't give into their demands, then no boundary settlement will be possible. China claims that 6th Dalai Lama was born in Tawang

Tract, and thus, Chinese people are emotionally attached to this region. Tawang Tract is a populated region and has been under Indian control for centuries. But China maintains that mere presence of populated areas cannot affect its sovereign claim over this region.

MIDDLE SECTOR

China also lays claims on a region known as "Finger Area" in Sikkim. It is a 1 km stretch of land in the northern tip of Sikkim that overlooks a valley called the "Sora Funnel". This area is considered to be a strong defensive position for the Indian army. China recognised Sikkim as an integral part of India in 2003, but continues to lay claim on Finger Area and is now planning to build a road through this area to neutralize the advantage being enjoyed by the Indian Army.

WESTERN SECTOR

Aksai Chin is a 38,000 sq. km swathe of land in Jammu and Kashmir which according to India, China has illegally occupied after the 1962 war between the two countries.

Besides, Pakistan has also ceded 5,180 sq. km to China from the POK (Pakistan Occupied Kashmir) region.

QUEST FOR POLITICAL & ECONOMIC HEGEMONY

India has had difficulties in maintaining friendly and cordial relations with her smaller neighbours, probably due to her not dealing with them as equals. The smaller neighbours have tended to guard themselves by developing economic and military linkages with China. If both the players use Ubiquitous Big Brother (UBB) strategy – not cooperating with other smaller countries economically and politically, then both will lose goodwill and support from the South East Asian countries, which will incur more of a loss to India, since China already enjoys a lot of clout in the South East Asian and African regions owing to their economic linkages. If both players use Benevolent Leader (BL) strategy – helping smaller countries and increasing economic linkages, then India will benefit more in terms of the marginal gains that both countries receive in terms of political and economic clout because China has already gained a lead on this front. If China plays UBB and the India plays BL, then it will impact China more than it does India, because countries of the developing and underdeveloped world have come to expect more of China than from India. Hence the payoffs are not symmetric.

		China	
		Benevolent Leader	Ubiquitous Big Brother
India	Benevolent Leader	5, 4	8, -6
	Ubiquitous Big Brother	-5, 7	-6, -5

This game has clear dominant strategies for both countries – to play BL, not only to be the protagonist for the welfare of underdeveloped countries on the international stage but also to further their own economic interests considering the fact that some African countries are the fastest growing and are a source of natural resources.

BILATERAL ECONOMIC COOPERATION

Bilateral trade between India-China has grown rapidly in the past few years and picked up significantly after Chinese accession to WTO. During the period 2001-2009, bilateral trade turnover jumped by nearly twelve and a half times from US$ 3.6 billion to nearly US$ 45.1 billion. China has now emerged as the largest trade partner of India since 2008-09.

However, the trade imbalance is rising between the two countries. One of the major reasons for increasing trade gap for India is that China exports to India finished products like electronic and electrical equipment etc. which carry value addition, whereas India largely exports raw materials and semi-finished products. Moreover, there is a ban on export of iron ore from India which has led to the decrease in volume of Indian trade with China.

The trade relations between India and China can be represented in the form of below mentioned game.

		China	
		Don't Cooperate	Cooperate
India	Don't Cooperate	-10, -10	5, 2
	Cooperate	2, 5	10, 10

China is the largest trading partner of India. However, China is lagging behind India on services and needs Indian companies to help spread technical knowhow. Hence the payoffs are symmetrical. If both India and China don't cooperate then both are going to lose economically. The payoffs are positive even if one cooperates and the other doesn't because the trading relationship is still on and the other country does get a benefit, even though it may not manifest itself in the short run. In this case, Cooperate is the dominant strategy for both the players and thus, both are going to benefit economically if they focus on increasing their trade relations.

USA-INDIA-CHINA TRIAD

The study of relationship between India and China is incomplete without studying the part played by USA. With its rapid growth and aggressive strategies, China clearly expresses the desire to be a superpower. Due to China's strategies, the power balance in south East Asia and in the world is slowly tilting away from US. Thus, for US it is favourable to keep China in check. It is for this purpose that US is favouring India. The three nations are in

game theoretic situation of partially aligned interests. Each of them has a desire to be a superpower. For US it is question of retaining its number one position. Howeverfor India and China the journey has just begun. It is clear to all three nations that without eachother's co-operation, they cannot progress. At the same time each fears the other two to be a threat to its own ambition.

To capture this scenario we define payoffs as follows:

Table 1: Basic Payoffs

	Favour China	Cooperate with China	Favour USA	Cooperate with USA	Solo
India	-2	4	-1	6	-5
	Favour India	Cooperate with India	Favour USA	Cooperate with USA	Solo
China	-1	4	-2	5	-5
	Favour China	Cooperate with China	Favour India	Cooperate with India	Solo
USA	-3	2	-1	5	-5

The payoff for favouring any nation indicates only the cost of the favour and not the actual payoff. We have assumed for simplicity that all the nations are following **grim strategy,** which is a strategy of non-cooperation forever in future, if the opponent is found to have cheated even once. Thus if India favours China, it will incur cost -2 for one turn. But if China does not reciprocate with favour, India will never again try to favour or co-operate with China. Thus, for India favouring China unilaterally results into a payoff of -2 (it will not incur the cost in any future turns).Further, going solo is a case when the country is not receiving co-operation from any of the other two. On the other hand, mutual favour results in co-operation and benefits both the parties.

Naturally, the benefits of co-operation and the cost of favouring are different for each pair of nations. For US and India, US being a developed nation, India will be more benefitted if both the countries co-operate. Further as India and US are both democratic countries, and are more trustful of each other, the cost of favouring US is less for India as compared to the cost of favouring China. Similarly, for China cost of favouring US will be very high as compared to cost of favouring India. This is because US is more mistrustful of China than India is. Like India, China too gains much from co-operation with US. US on the other hand gains very less from cooperation with China, as it will enable China to become a superpower and threaten the current position of US.

To clarify the payoff system further, let's consider a scenario where US favours India, India favours both and China

favours US. In this case the mutual favouring by India and US will result in a co-operation situation. Thus, India will not be going solo and hence will not incur cost of -5. The net payoff of India = payoff from co-operating with US + payoff from favouring China = 6+ (-2) = 4

For US, the payoff will be same as payoff resulting from co-operation with India, i.e. 5; since it is not incurring the cost of favouring China.

For China on the other hand, the situation is not sogood. It is incurring cost of favouring US, but is not getting repaid for that. Thus, China in effectis going solo and additionally is incurring cost of favouring US. Hence, payoff for China = payoffof going solo + payoff of favouring US unilaterally = -5 + (-2) = -7

With these assumptions, let's prepare the payoff matrices for each combination of strategies.

Since there are 4 strategies for each player, there will be 4 matrices each of 4x4 as follows.

Table 2: USA decides to go solo (The 3rd payoff shown is USA's)

		China			
		Favour India	Favour USA	Favour both	Solo
India	Favour China	4, 4, -5	-7,-5,-3	4,2,-3	-7,-3,-5
	Favour USA	-5,-6,-4	-6,-7,-2	-5,-8,-2	-6,-5,-4
	Favour both	3,4,-4	-8,-3,-2	3,2,-2	-8,-3,-4
	Solo	-4,-6,5	-5,-7,-3	-4,-8,-3	-5,-5,-5

Table 3: USA decides to favour India (The 3rd payoff shown is USA's)

		China			
		Favour India	Favour USA	Favour both	Solo
India	Favour China	5,4,-6	-6,-5,-4	7,2,-6	-6,-3,-6
	Favour USA	7,-6,5	6,-7,7	7,-8,7	6,-5,5
	Favour both	10,4,5	4,-5,7	10,2,7	4,-3,5
	Solo	-3,-6,-6	-4,-7,-4	-3,-8,-4	-4,-5,-6

Table 4: USA decides to favour China (The 3rd payoff shown is USA's)

		China			
		Favour India	Favour USA	Favour both	Solo
India	Favour China	4,7,-8	-7,7,2	4,9,2	-7,0,-8
	Favour USA	-5,-3,-7	-6,5,3	-5,4,3	-6,-2,-7
	Favour both	3,7,-7	-8,7,3	3,9,3	-8,0,-7
	Solo	-4,-3,-8	-5,5,2	-4,4,2	-5,-2,-8

Table 5: USA decides to favour both (The 3rd payoff shown is USA's)

		China			
		Favour India	Favour USA	Favour both	Solo
India	Favour China	5,7,-9	-6,6,1	5,9,1	-6,0,-9
	Favour USA	7,-3,2	6,5,7	7,4,7	6,-2,2
	Favour both	10,7,2	4,7,7	10,9,7	4,0,2
	Solo	-3,-3,-9	-4,5,1	-3,4,1	-4,-2,-9

Thus, from all the matrices, the best strategy for US is to favour both (payoff of 7 is greatest possible for US). As we can see, this game has Nash equilibrium at (favour both; favour both; favour both).

FUTURE OF SINO-INDIAN RELATIONSHIP

		China	
		Don't Cooperate	Cooperate
India	Don't cooperate	-7, -7	1, -8
	Cooperate	-10, 2	10, 10

We can see that if both don't cooperate with each other, then both are going to lose in overall terms. However, one country is going to lose more as compared to the other if it is cooperating while the other is not. Loss for India is more than China which is evident from the asymmetrical payoffs.

Considerations for asymmetrical payoffs:

- China is growing faster than India and has been growing since 1978
- China wields a lot more power internationally than India and will continue to do so in the near foreseeable future
- India has a more inclusive social structure which will ensure that the quality of life will be better in India

However, owing to differences in ideologies, the quest for global hegemony and the past differences, generally both the countries have not cooperated with each other. It does appear that some level of cooperation is developing, but if both cooperate positively, the payoffs as shown will be sufficient to shift the balance of power to the east.

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An Empirical Exploration of Social Networking & Leisure Travel Planning

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ABSTRACT

Social media refers to the wide range of Internet-based and mobile services allowing Internet users to participate in online exchanges, contribute user-created content, or join online communities and includes social media sites, blogs, and social media applications. Social networking has been woven into the fabric of everyday life. This empirical research study offers valuable insights on varying uses of social media that are having crucial implications for travel & tour operators in designing social media marketing strategies. The primary data were collected using pre-tested questionnaire from social media users being residents of the Baroda City of the Gujarat State to offer its findings having crucial socio-economic and implications.

Key words: Social Media, Social Media Marketing, Social Networking, Leisure Travel

Introduction:

Social media are Internet-based applications that build on the ideological and technological foundations of Web 2.0 and that allow the creation and exchange of user-generated content (Kaplan and Haenlen 2010)[1]. It refers to the wide range of Internet-based and mobile services that allow users to participate in online exchanges, contribute user-created content, or join online communities. The launch of Facebook is not a very old event wherein social networking was in the early stages of the innovation adoption curve, primarily used by teenagers and young adults.

A social media user is one who has become very much involved in social websites, and this has affected his or her decision making, especially when one accesses the photographs of places visited by friends, posted on social sites, it creates attraction as well as enthusiasm and works as an invitation while planning for a weekend or vacation tour. A social network is a social structure made up of a set of social actors such as individuals or organizations and a complex set of

the dyadic ties between these actors. Its perspective provides a clear way of analyzing the structure of whole social entities (Wasserman, Stanley; Faust, Katherine (1994).[2] The study of these structures uses social network analysis to identify local and global patterns, locate influential entities, and examine network dynamics. Now, social networking has been woven into the fabric of everyday life, and beyond the purview of the young. It has gained enough momentum to move further along the curve into new as well as each segment of users. Social media includes social media sites, blogs, and social media applications.

Review of Literature:

A report by IAMAI and IMRB International said that the number of social media users are expected to grow 17 per cent to reach 91 million in urban India by December 2013, on the back of rising Internet penetration due to increasing affordability of smartphones and availability of cost effective data plans. The number of social media users in urban India reached 78 million by June 2013 (The Economic Times, Oct.10, 2013)[3].

Now a day's, lot of work is being done on social media & social networking. An evolution of social media provides the evidence that it is in growing stage. One of the primary reasons for using Internet by individuals is to communicate with others. With e-mail, Instant Messaging (IM), Social Networking Sites (SNS), Blogs, and now rapidly grown known as

the Twitter, the Internet offers a plethora of ways to communicate with a large number of friends and strangers. The researchers have found only a few researches on influences of social networking especially concerning to Travel Planning. The researchers have undertaken this research study based on research work conducted by John Fotis of Bournemouth University, UK.

Thomas V. Pollet, Sam G.B. Roberts and Robin I.M. Dunbar (2011) in the study entitled "Use of Social Network Sites and Instant Messaging Does Not Lead to Increased Offline Social Network Size" had attempted to examine the relationships between use of social media (instant messaging and social network sites), network size, and emotional closeness in a sample of 117 individuals aged between 8 to 63 years old. It was found that time spent using social media was associated with a larger number of online social network friends. However, time spent using social media was not associated with larger offline networks, or feeling emotionally closer to offline network members.

Further, those that used social media, as compared to non-users of social media, did not have larger offline networks, and were not emotionally closer to offline network members. These results highlighted the importance of considering potential time and cognitive constraints on offline social networks when examining the impact of social media use on social relationships (Thomas V. Pollet, Sam G.B.
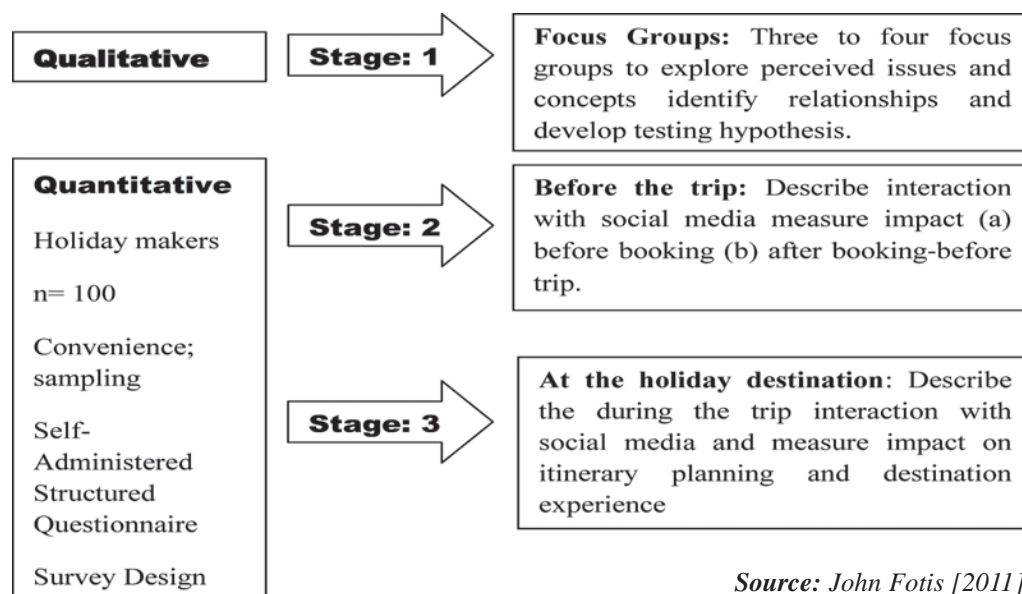
Roberts and Robin I.M. Dunbar, 2011).[4] Pew Internet (2011) research report showed that social media social networking use among those aged 50 and older, nearly doubled over the past year. Social networking use continues to grow among older users. One in ten (11 percent) online adults aged 50 to 64 years, and one in twenty (5 percent) online adults who were aged 65, and older were found as using Twitter or another service to share updates about themselves or see updates about others. E-mail and online news also appealed more to older users, and social media sites attract many repeat visitors. Half of (47 percent) Internet users aged 50-64, and one in four Internet users (26 percent) found as aged 65 and older were found to be using social networking sites (Pew Internet Report ,2011).[5]

Social media has emerged as important in tourism to decrease uncertainty and increase exchange utility (Litvinet al 2008; Yooet al, 2007, Gretzelet al, 2006)[6] to offer a vital information source to potential tourists (Chung & Buhalis, 2008)[7]. It has become apparent that social media has been introduced as a new complex and uncontrollable element in consumer behaviour presenting a new challenge both to the academia and the marketers with various research studies that have concluded that social networks of consumer knowledge affects consumer behaviour.

Such a challenge is magnified by the fact that the presence of social media seems to have caused both an increasing mistrust for the traditional marketing tactics as well as a diminishing effect of mass media (De Valck et al., 2009)[8].

A four stage mixed methods based on sequential exploratory research design as offered by John Fotis (2011) was put to use in this research study which is as follows:

Qualitative	**Stage: 1**	**Focus Groups:** Three to four focus groups to explore perceived issues and concepts identify relationships and develop testing hypothesis.
Quantitative Holiday makers n= 100 Convenience; sampling Self-Administered Structured Questionnaire Survey Design	**Stage: 2**	**Before the trip:** Describe interaction with social media measure impact (a) before booking (b) after booking-before trip.
	Stage: 3	**At the holiday destination**: Describe the during the trip interaction with social media and measure impact on itinerary planning and destination experience

Source: *John Fotis [2011][9]*

This model comprised of four stages has been developed especially keeping in mind the process of travel planning that involves the qualitative and quantitative measures. The stage one includes three to four focus groups to explore perceived issues and concepts to identify relationships between social media &travel planning, these groups develop testing of hypothesis also. The stage two explores the interaction with social media before booking for tour or actual trip. The third stage is experiential one where social media user is travelling as well as communicating or interacting with social media. They used to upload daily updates with photographs. The fourth & last stage concerns to feedback of holiday maker after the trip. The whole model includes all possible interactions before, during & after travelling (John Fotis, 2011).

Earlier research studies conducted by (Foxall,1990; Marsden and Littler 1998)[10]& (Marsden and Littler 1998, P.6)[11] too had focused on consumer behaviour that has revealed that consumers information processing mechanism, mental process, storage, retrieval and use of marketing information in the decision making process are affected by social media. It has lead us to seek answers of the question such as that Do social media change the way consumers' are making decisions?

Do social media, due to its impact substantiates a redefinition of the structure and the constructs involved in the decision making process as depicted in comprehensive consumer behaviour models? It becomes clearly evident that that still there exist a gap to be filled up by further researches in this direction.

Research Methodology:

An attempt has been made to outline in brief various steps of the methodology that were followed in the conduct of this research study as follows.

An attempt in this research study was made to collect primary data from those Internet users who are being residents of the Baroda City of the Gujarat State and has been accessing social media to develop valuable insights in their patterns of use of social media that are having crucial implications for travel & tour operators in order to enable them for developing increasingly effective social media marketing strategies, campaigns and programs.

Key Terms of the Research Study:

1: Social Media:

Social media are Internet-based applications that build on the ideological and technological foundations of Web 2.0 and that allow the creation and exchange of user-generated content. Social media are online applications, platforms and media which aim to facilitate interaction, collaboration and the sharing of content (Richter & Koch, 2007).[12]

2: Social Media Marketing:

Social media marketing consists of the attempt to use social media to persuade

consumers that one's company, products and or services are worthwhile. Businesses using social media want to sell their products or services of course (Paul martin & Thomas Erickson (2011).[13]

3: Social Networking:

A Social Network is a social structure made up of individuals or Organizations called as "nodes", which are tied or connected by one or more specific types of interdependency, such as friendship, kinship, common interests, financial exchange, dislike, sexual relationship or relationship of beliefs, knowledge, or prestige.(ibid)

4: Leisure Travel:

Leisure travel can also be referred to as tourism aimed to provide Freedom from time-consuming duties, responsibilities, or activities. Leisure travel can be long or short term depending on one's financial budgets. It is usually a moment to connect with nature, have fun and visit historical sites. It is the kind of travelling having objective of spending money for fun, enjoyment and relaxation.

Research Study:

The descriptive research design was followed in this research study in which primary data that were collected using self-administered structured non-disguised questionnaire from conveniently drawn total number of 100 social media users based on non-probability sampling design from amongst the working male & female executives who have been accessing any

of the social networking site as social media users as well as also Internet users and being residents of the Baroda City of the Gujarat State. The reliability test had confirmed the reliability of questions considering the resultant value for Cronbach's Alpha that ranged from 0.772 to 0.673.

Objectives of the Research Study:

Social media users are very much influenced by the posts, posted on social websites, and blogs written by their friends. The objectives of the research study were as follows.

❖ To study and evaluate frequency & pattern of accessing social media websites by the social media users;

❖ To find out the influence of different kind of content which attracts social media users in using the social medias;

❖ To find out the influence of social medias on social media users in deciding leisure travel;

❖ To study and evaluate use and extent of social media throughout the holiday travel cycle;

❖ To analyze use of social media during the holiday destination and accommodation decision making process, and

❖ To find out reasons that drive holidaymakers to use social media in their leisure travel planning during holidays.

Demographic Profile of Social Media Users:

The researchers have provided demographic profile of the selected respondents that is social media users on the basis of selected demographic variables viz., age, educational qualifications, marital status, and monthly income.

It was found that the maximum number of social media users were belonging to the age group of 15 to 25 years (45 percent) followed by 36 to 45 years (25 percent) respectively. 70 percent of social media users were found married as remaining 30 percent were unmarried ones, and 62 percent of respondents reported as belonging to nuclear families. Majority of the selected respondents were found as Post-Graduates followed by Professionally Qualified and Graduates [Refer Appendix: Table : 01].

Data Analysis and Interpretations:

Duly edited questionnaires were tabulated and analyzed by taking help of SPSS 15.0. The researchers have also attempted to gather information on Internet-related activities of selected social media users which mainly revealed following facts. The respondents had positively responded to their exposure towards activities performed by the social media users. Viewing the profile was a regular phenomenon amongst the respondents followed by second preference in favour of watching the Video Online, but 29 percent of them were not uploading the pictures after or during the trip. Surfing the Web & friend too was found the reliable sources for creating awareness about social networking sites.

It was also found that respondents were having a great concern towards safety & privacy. 31 percent of social media users were having a group of more than 50 individuals, and similarly a group of 10 friends or connections, rest were having group connection consisting of 20 to 40 individuals.

It was also found that the tools & features showing in the webpage were found very important by the respondents, among them, Control privacy settings; Post comments; Invite a friend; Post Photo & Calendar were found as very important [Refer Appendix: Table : 02 & 03].

A five scale response categories were merged in to three scale response categories, and it was found that overall 90 percent of social media users had agreed on selected items on social media activities while deciding leisure travel planning. Majority [67 percent] of the social media users had strongly agreed with the selected item that 'they considered photographs & comments about destinations posted on social media before deciding place to visit' & simultaneously 'they also considered photographs & comments about accommodation before taking final decision'.

Very few [14percent] social media users stated that they were not uploading photographs during travel. 68 percent of the social media users strongly agreed to the selected item that 'The choice of travel tour is influenced by social media'. Some [18percent] of the social media users stated that 'They did not take help from applications like Trip Advisor' [Please Refer Appendix: Table : 04].

Findings & Implications of the Research Study:

The researchers have applied chi-square test to test hypotheses that has mainly revealed following.

Hypothesis: 01   [There is no association between the opinions of Social Media Users towards influence on them of Social Networking Sites in Leisure Travel Planning Vis-à-vis their Age.]

Selected social media users' opinion towards the consideration of photographs & comments about destinations & accommodation posted on social media, before deciding place to visit were found as closely associated with their age, as researchers had found that with age difference there were differences in the way social media users were planning their travel plan. While each age group was having similar opinion of giving importance to social media in deciding the travel destination [Refer Appendix: Table : 05].

Hypothesis: 02   [There is no association between the opinions of social Media Users towards influence on them of Social Networking Sites in Leisure Travel Planning Vis-à-vis their Gender.]

Male & Female respondents were having similar opinion towards the consideration of Photographs & Comments about destinations & accommodation posted on Social Media, before deciding place to visit. Activities like Uploading of photographs during travel, was found different in male & female [Refer Appendix: Table : 06].

Hypothesis: 03   [There is no association between the opinions of social Media Users towards influence on them of Social Networking Sites in Leisure Travel Planning Vis-à-vis their Educational Qualifications.]

In case of Leisure Travel Planning, researchers have found that the educational qualification was not significantly related and influenced the decisions, except in case of taking help of trip advisor before the trip and uploading the feedback after the trip, where difference of opinion was found with reference to educational qualification [Refer Appendix: Table : 07].

Hypotheses: 04 [There is no association between the opinions of social Media Users towards influence on them of Social Networking Sites in Leisure Travel Planning Vis-à-vis their Monthly Income.]

Analysis revealed that Monthly Income of social media users' was not having significant association with browsing the photographs and reviewing the comments uploaded by others, while decision making about the selection of place & tour operator was found significantly associated with monthly income [Refer Appendix: Table : 08].

Implications of Research Study:

The research findings have revealed that age has a significant role in deciding travel destination & accommodation in combination with social media ,and it shall have implications on the travel industry by enabling marketers to understand the impact of social media throughout the decision making process, and therefore develop more efficient and effective marketing strategies and actions.

Simultaneously, it would be having implications for academia by providing a comprehensive model demonstrating the influence of social media on the consumer decision making process and at the various stages of the travel planning process, thus enabling further research at micro level. The

research study has uncovered the role, and measured the impact of different types of social media in leisure travel planning related consumer behaviour, before, during and after the trip. Research output will be valuable to the industry as well as academia.

It will enable marketers to understand the impact of social media throughout the decision making process and therefore develop more efficient and effective marketing strategies and actions, while an advance consumer behavior theory at macro level by providing a comprehensive model demonstrating the influence of social media on the consumer decision making process and at the various stages of the travel planning process, thus enabling further research at micro level. Its results showed that social media is having great influence on leisure travel planning, which made researchers to suggest that every tour operator & hotelier should take compulsory feedback from each customer and it should be uploaded on their websites. As the study was conducted in the city of Vadodara, it was to be considered as limitation for the study and time limit to conduct the study was also found as limitation.

Conclusion:

This paper is a compilation of primary research, published secondary data, and insights from experienced staff and advisors who specialize in marketing through social networks. Social media includes social

media sites, blogs, and social media applications/widgets. Tourism is a rising industry, having wide scope and meaning, it is travel for recreational, leisure, or business purposes.

The researchers have picked up leisure travel planning for research purpose, and tried to find out the role and impact of social media on it. With the adoption of descriptive research design, primary data were collected using self-administered structured non-disguised questionnaire from conveniently drawn total number of 100 social media users based on non-probability sampling design from amongst the working male & female executives who have been accessing any of the social networking site as social media users as well as also Internet users and being residents of the Baroda City of the Gujarat State.

It was found that the maximum number of social media users were belonging to the age group of 15 to 25 years (45 percent) followed by 36 to 45 years (25 percent) respectively. It has implied that in between these age groups, there is a phase where respondents were busy in settling their life, & prefer less leisure travelling. Majority of the selected respondents were found as Post-Graduates followed by Professionally Qualified and Graduates.

The research study has shown that the social media certainly plays an important & significant role in deciding travel destination, and it is an influential factor in leisure travel planning. The research study has provided an overview of the social media landscape as well as its influence in getting attracted towards a Travel destination, deciding or making plans for leisure travel. The researchers have attempted to provide key insights to enable advertisers and agencies for developing social media marketing strategies, campaigns and programs to attract the social media users towards their attractive offers & discounts before hiring an agency to plan leisure travel.

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APPENDIX

Table -01 : Demographic Profile of Social Media Users

Selected criteria	Number & Percentages of Social Media Users
Selected Age Groups	
15 Years to 25 Years	45
26 Years to 35 Years	20
36 Years to 45 Years	35
45 Years and Above	00
Total	100
Marital Status	Number & Percentages of Social Media Users
Single	70
Married	30
Total	100
Gender	Number & Percentages of Social Media Users
Male	30
Female	70
Total	100
Educational Qualifications	Number & Percentages of Social Media Users
Professionally Qualified	26
Post Graduate	65
Graduate	09
Total	100

Table -02 : Activities of Social Media Users on Social Media

Selected Activities on Social Media	Number & Percentages of Social Media Users			
	Daily	Weekly	Monthly	Never
View profiles on a social networks	83	14	03	00
Watch video clips online	54	25	21	00
Read blogs/weblogs	32	18	45	05
Upload pictures to a website	45	26	00	29
Leave comments on site	63	24	13	00
Subscribe/Like an Information/Advertisement	00	17	45	52

Table -03 : Online Friends of Social Media Users on Social Media

Number of Individuals/Friends	Number & Percentages of Social Media Users
01 to 10	04
11 to 20	03
20 to 40	8
41 to 50	23
More than 50	62
TOTAL	100

Table-04 : Social Media Users' Opinion on Selected Items of Travel Planning

Sr. No.	Selected Criterion	Number & Percentages of Social Media Users				
		SD	D	CS	A	SA
a	Consider Photographs & comments about destinations posted on Social Media, before deciding place to visit.	00	06	04	23	67
a)	Consider Photographs & comments about accommodation by Social Media users, before final decision.	00	06	04	23	67
b)	While traveling used to upload photographs of tourist place visited.	00	13	00	73	14
c)	After the trip used to upload feedback about destination & accommodation.	00	16	00	28	56
d)	Social media influences the choice of the place to visit.	00	24	00	08	68
e)	Decision making is affected by Social media users' comments.	00	15	00	29	56
f)	It becomes difficult to decide the travel plan in absence of views of others.	00	20	10	43	27
g)	Selection of Tour operators is done on the basis of reviews	00	10	00	65	23
h)	Take help of Trip Advisor Applications before Planning for Travel	00	54	00	38	18

Table -05 : Table showing Influence of Social Networking Sites in Leisure Travel Planning Vis-à-Vis Age of Social Media Users

Sr. No	Selected Criterion	Result of χ2 Test at 5 % Level of Significance
1	Consider Photographs & comments about destinations posted on Social Media, before deciding place to visit.	S[.004]
2	Consider Photographs & comments about accommodation by Social Media users, before final decision.	S[.023]
3	While traveling used to upload photographs of tourist place visited.	S[.002]
4	After the trip used to upload feedback about destination & accommodation.	S[.045]
5	Social media influences the choice of the place to visit.	NS[.263]
6	Decision making is affected by Social media users' comments.	NS[.082]
7	It becomes difficult to decide the travel plan in absence of views of others.	NS[.095]
	Selection of Tour operators is done on the basis of reviews	NS[.92]
	Take help of Trip Advisor Applications before Planning for Travel	S[.006]

Table -06 : Table showing Influence of Social Networking Sites in Leisure Travel Planning Vis-à-Vis Gender of Social Media Users

Sr. No	Selected Criterion	Result of χ2 Test at 5 % Level of Significance
1	Consider Photographs & Comments about destinations posted on Social Media, before deciding place to visit.	NS[.082]
2	Consider Photographs & Comments about accommodation by Social Media users, before final decision.	NS[.064]
3	While traveling used to upload photographs of tourist place visited.	S[.004]
4	After the trip used to upload feedback about destination & accommodation.	S[.022]
5	Social media influences the choice of the place to visit.	NS[.084]
6	Decision making is affected by Social media users' comments.	NS[.062]
7	It becomes difficult to decide the travel plan in absence of views of others.	NS[.238]
8	Selection of Tour operators is done on the basis of reviews	NS[.242]
9	Take help of Trip Advisor Applications before Planning for Travel	NS[.092]

Table -07 : Table showing Influence of Social Networking Sites in Leisure Travel Planning Vis-à-Vis Educational Qualifications of Social Media Users

Sr. No.	Selected Criterion	Result of χ2 Test at 5 % Level of Significance
1	Consider Photographs & Comments about destinations posted on Social Media, before deciding place to visit.	NS[.082]
2	Consider Photographs & Comments about accommodation by Social Media users, before final decision.	NS[.232]
3	While traveling used to upload photographs of tourist place visited.	NS[.723]
4	After the trip used to upload feedback about destination & accommodation.	S[.004]
5	Social media influences the choice of the place to visit.	NS[.067]
6	Decision making is affected by Social media users' comments.	NS[.082]
7	It becomes difficult to decide the travel plan in absence of views of others.	NS[.086]
8	Selection of Tour operators is done on the basis of reviews	NS[.072]
9	Take help of Trip Advisor Applications before Planning for Travel	S[.002]

Table-08 : Table showing Influence of Social Networking Sites in Leisure Travel Planning Vis-à-Vis Monthly Income of Social Media Users

Sr. No.	Selected Criterion	Result of χ2 Test at 5 % Level of Significance
1	Consider Photographs & Comments about destinations posted on Social Media, before deciding place to visit.	NS[.226]
2	Consider Photographs & Comments about accommodation by Social Media users, before final decision.	NS[.087]
3	While traveling used to upload photographs of tourist place visited.	NS[.086]
4	After the trip used to upload feedback about destination & accommodation.	NS[.784]
5	Social media influences the choice of the place to visit.	S[.006]
6	Decision making is affected by Social media users' comments.	
7	It becomes difficult to decide the travel plan in absence of views of others.	S[.006]
8	Selection of Tour operators is done on the basis of reviews	S[.022]
9	Take help of Trip Advisor Applications before Planning for Travel	S[.030]

■■■

Contemplations Influencing Individual Stress level: A Study of College Students in Hisar

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ABSTRACT

Stress is an integral part of life, especially for a college student. It has effects on people's behavior, communications and efficiency. Academic institutions have different work settings compared to non-academics and therefore one would expect the difference in symptoms, causes, and consequences of stress. The present paper has empirically investigated two objectives: first, to investigate the factors that influence individual stress level and second to assess the relative significance of these factors on overall stress management among students. The study is based on a sample of 150 respondents from Hisar district of Haryana state and applied statistical tools of factor analysis and regression analysis to achieve the objective of the study.

Factor analysis gets five factors named as: personal problem, relationship problem, social problem, academic problem and lastly environmental problem. Results of regression analysis reveals that students of colleges are usually facing stress more from relationship and environmental problems.

Key Words: *Academic problem, Factor analysis, regression analysis*

Introduction:

Everyone faces stress as they clubbed their busy life and the hassles of the study or work while trying to save some time for family and friends. Periodic stress is faced by us like appearing for any exam, working on any paper, going for an interview. Though constant state of stress should not become a way of life. We are very much familiar with a fact that stress for a long period of time can have greater health risks, too takes place in connection and general well-being.

In simple terms, stress is the body's general response to any obligation made on it. According to the definition, stress is same as nervous pressure or apprehension. Stress delivers the resources

to direct abilities and vitalities and pursues contentment; it also leads to fatigue and sickness, whichever bodily or mental; heart attacks and accidents. The most significant mechanism about stress is that certain forms are usual and essential. The reason behind this is that our body reacts to different forms of psychological and physical stress, or certain probable ups and downs occur. The resultant may take any of these forms like increasing heart beats, secretions of stimulatory hormones and blood pressure. These responses concluded that stress is either negative or positive. In layman terms, it is also known as the flight or fight mechanism. Frequent acquaintance drops the body's capability to succeed with supplementary forms of physiological stress or psychological.

The consequences of on-going stress may leads to disruption in physical, emotional, spiritual and social aspects of health. The more active way to interfere is to enter early in the process rather than later.

Common stressors that may appear in students' life comprises of financial duties, bigger academic pressure, drastic changes in family relations and self-social life in new surroundings, acquaintance with new faces, ideas and inducements, far away from home, awareness of sexual individuality, making ready for life after graduation, capability to take decision for higher level, psychological make-up also shows a role in susceptibility to unhappiness. People who constantly view themselves and seeing the world with pessimism, having low self-esteem are enthusiastically overcome the stress may be especially prone to depression.

College students enter into adulthood passes through a crucial period. They are treated as the leaders in the society. Therefore, students should develop stress management abilities, to live a healthy life after becoming the part of society. Adolescence is a dangerous period of time where young people experience self-organization and role confusion. For them, stress mainly comes from academic tests, interpersonal relations, relationship problems, life changes, and career exploration. Such stress may usually cause psychological, physical, and behavioural problems.

The University students reported to be suffered from psychological distress greater than the general population, and also to be reported in other different university faculty's world-wide (Wong et al., 2006). According to that study, the frequency of psychological distress was of moderate severity (anxiety: 41%, stress: 27% and depression: 21%). It was anticipated to have the impact on the students' educational attainment and quality of life and definitely students were expected to suffer impairment, and require more attention from health-care professionals.

A Large number of undergraduate students nearly 2500 students were covered in a US based study conducted

through web based survey (Eisenberg, Gollust, Golberstein, & Hefner, 2007), in which anxiety disorder level and depression was 15.5%. Out of these suicidal thoughts was borne by 2% students. While the response rate was below 50%, even though response was unbiased, difficulties related to emotional level had affected their output in earlier 4-weeks, and there were strong connotations between anxiety disorder and depression as a major one (13.8% reported as major depression). Students who were more than 25 years of age, were less suffered from psychological distress, and among those who lived with a partner (were not single) or on campus (not with parents).

A survey conducted at Australian university students found to have high levels of psychological distress who had attended a university health service (Stallman, 2008). Yet those students above the age of 24 had greater levels of psychological distress. Social issues, financial problems and academic demands were the reasons that lead to stress among university students (Vitaliano, Maiuro, Russo, & Mitchell, 1989). It was also reported that greater level of psychological distress is found in all age groups when compared to the general population results from the 2001 National Health Survey (Australian Bureau of Statistics), but there were no significant gender differences. In that study 53% of students had significant (moderate, high and very high) levels of psychological distress.

Levels of Stress among Management Students:

Management education plays an important role in developing the leadership qualities and turns into outstanding future trend setters, which is obvious with lot of challenges. In the professional courses, students' needs to confront with lot of challenges for which they have been showing earlier. The pressure for getting good grades and earn a degree is very high (Hirsch & Ellis, 1996).

According to Ong and Cheong (2009), stress related to academic is at top at 63%; interpersonal scored 17.5 per cent, intrapersonal 13.0 per cent, environmental 2.5 per cent and 3.5 per cent reported no stress at all among a sample of 285 international students in professional courses. In the list of topmost five reported stressors were found to be lecturer characteristics, CGPA, too many tests, course difficulty and workload. Other possible sources of stressors include vague assignments, lot of homework and uncomfortable classrooms (Kohn & Frazer, 1986).

In accumulation of above sources, time pressures and developing relations with faculty members may also be the reasons that leads to stress (Sgan-Cohen & Lowental, 1988). Every academic Institution has work settings varying as compared to non-academic and consequently expecting the variations in the symptoms, reasons, and outcomes in these two set up (Chang & Lu, 2007).

A study was also conducted by Purna Prabhakar, Nandamuri and Gowthami (2011), on 500 postgraduate management students from various management institutes spread across the Warangal district of Andhra Pradesh in India which discloses that four major areas causes stress among them and out of these curriculum factor got high significance which was followed by the teamwork among students. There are some more reasons like way of instruction, assessment and placement issues that contribute for the stress related to academic.

In the present study 63 percent students were management students. As majority is concerned among the sample, students take lot of pressure during exam days and believe in one night fight to get good grades.

Review of Literature:

Students who were suffered from depression do not take interest in activities that were pleasurable earlier. Other mental and physical problems generally practised includes unable to focus, recollect problems, aches, pains, problems in sleep, and loss of appetite. Students often felt helpless, hopeless, and worthless in their ability to fix priority while suffering with this condition. They treated their experience without sleep as a living nightmarish. That does not matter how hard they try to come out of it and feel as they are dropping into any hole (Berkeley University Health Services, 2003) and also have predisposition to even

committing suicide attempt (Goldberg & Hillier, 1979).

Stress is defined as a process in which surroundings pressurise an individual adaptive capability, leads to biological as well as psychological changes that makes the person at risk for disorder (Cohen, Kamarck, & Mermelstein, 1983).

Lazarus (1991) also defined stress as physical and psychological reaction of the body when somebody adapt to the fluctuating conditions. He also bifurcated stress into four different types of stress are 1) eustress, 2) distress, 3) hyperstress and 4) hypostress. Eustress is a constructive type of short-term stress that offers strength at points to increase physical activity, zeal and inspiration while distress is defined as destructive stress taken by constant re-adjustment or change in a routine. On the other side, hyperstress happens when an individual is pressed beyond what he or she can handle. The reason might be overloaded or overworked. Hypostress is the antonym of hyperstress. Hypostress occurs when tired or unopposed experience feelings of anxiety and being unimaginative. Extreme distress or stress in the students leads to noticeable symptoms such as incompetence to effectively perform college work and the fear of academic failure and drop outs from college (Kumar & Jejurkar, 2005). It has been widely accepted that stress is a mental, emotional and physical reactions to variations in the demands and events in life as it is an internal existence and a mental outlook (Lazarus,

1991; Pietromonaco et al. 1986; Segerstrom & Miller, 2004). The way students reacts to the stressors will depend on their character, past experience and perceptions (Linn & Zeppa, 1984).

The main focus is on how the individual replies to the stressors would be subject to their character, observations, and their previous involvement. To attain both work and individual goal a little stress is required. Though, excessive stress could mark targets difficult to attain. A person's adaptability with occupational stress would rely on how well they exposed to the stressors, the arrangements they consider to moderate the influence of the stressors and the prospects to deal with the stressors (Managing stress in the work place, 2000).

Statement of Problem

The impact of stress on college students has been examined in various sectors across the world. Student's life has many hurdles to overcome to attain maximum performance in their academics. A lot of researches have been completed regarding stress factors among University student's knowledge and the effects on their attainments. Hence, it is an appropriate way to identify this specific matter as results of the present study would benefit different stakeholders of the colleges mainly for their future planning for organising essential programs for the students to reduce their stress-related factors to attain better performance in academics. This relationship in the college

settings of Hisar city is missing in the literature. The study is designed to investigate the factors that influence the individual stress level and assess the relative significance of these factors on overall stress management among students.

Objectives of Study:

- To investigate the factors that influences the individual stress level.

- To assess the relative significance of these factors on overall stress management among students.

Research Methodology:

Present study is an empirical research to examine the stress management among students. The study is based on the sample of 150 respondents from colleges of Hisar district of Haryana state. The data was collected in January-March 2014. The students were taken from MBA (95), BBA (20), B.Sc. (20), B.A. (2) and B.Com (13). Convenient sampling method is adopted for collecting the sample. The questionnaire is designed with two sections: section 1 captures demographic information for the purpose of describing the sample and it consist of questions pertaining to age, gender, educational qualification, family, living status, residential status. Section 2 has questions relating to relationship problems, academic pressure, personal and environmental problems. All the 13 questions from section 2 of the questionnaire is based on Likert scale ranging from 1 = Strongly Disagree to 5 =

Strongly Agree. The data is analysed using SPSS version 13.0. The study employs factor analysis to determine the factors that are considered important while under stress. Factor analysis is a set of technique to identify underlying factors from the collection of seemingly important variables. It trims down the total number of variables into fewer factors and also shows the correlation between the factors (Nargundkar, 2005). Secondary data has been collected through research papers, journals, websites, magazines and books.

The demographic characteristics of the respondents are summarized in Table 1. It is clearly being shown from the table that the respondents have three times proportion of males (72.7 %) as compared to females (27.3 %). The sample customers are mostly in the age group of 21-25 (48.7%) followed by age group of 26 and above years (46%) and in less than 20 age group (5.3%). Further, equal no. of the respondents lives in Urban area (50.7%) and (49.3%) in the rural area. The respondents were predominantly post-graduates (63.3%) followed by graduates (22%) and under graduates were (14.7%) implying that sample comprises of high literate respondents. With regard to the residential status (59.3%) were hostler, day scholar were (40.7%).

Table 1: Demographic Profile of Respondents

S. No.	Demographic Profile	Frequency	Percent
Sex	Male	109	72.7
	Female	41	27.3
Age	Less than 20	69	5.3
	21-25	73	48.7
	26 and above	8	46
Marital Status	Married	182	72.8
	Unmarried	68	27.2
Education Level	Graduate	33	22.0
	Under graduate	22	14.7
	Post-graduate	95	63.3
Living Status	Rural	74	49.3
	Urban	76	50.7
Residential Status	Hostler	89	59.3
	Day-scholar	61	40.7

Discussions:

In the present study, the researcher applied Kaiser-Meyer-Olkin (KMO) test and Bartlett's Test of Sphericity as pre-analysis verification for judging the suitability of the entire sample which is a pre-requisite of factor analysis. Table 2, shows the value of Kaiser-Meyer-Olkin (KMO) and the Bartlett's Test of Sphericity as 0.571 and 146.110 respectively, which are statistically significant at 1% level of significance. Thus,

it shows that the sample is suitable for factor analysis (Hair et al., 2006). Table 3 presents the overall reliability of this construct with Cronbach's coefficient alpha having the value of 0.529, which is highly significant.

Table 2: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.571
Bartlett's Test of Sphericity	Approx. Chi-Square	146.110
	Df	78
	Sig.	0.000

Table 3 : Reliability Statistics

Cronbach's Alpha	N of Items
0.529	13

Factor Analysis:

The survey data from the questionnaire is analysed using factor analysis in order to summarize the 13 statements related to stress management into smaller sets. These 13 statements are reduced to five principal components through varimax rotation. Only those factors are considered as significant, whose eigen-values is more than one.

Table 4: Name of Factors and Their label

S. No	Name of Factor	Statements	Factor Loading	Cronbach Alpha value	Eigen Value	% of Variance	Cumulative %
1.	Personal problem	How often do you experience of power failure?	.741	.553	2.154	16.569	16.569
2.		How often do you experience transportation problems?	.731				
3.		Experience of personal illness	.553				
4.		Do you experience accommodation problems	.486				
5.	Relationship problem	Problems with opposite gender	.749	.453	1.335	10.271	26.840
6.		Problems with parents	.668				
7.		Problems with course mates	.542				
8.	Social problem	Death of a class-mate or family member	.816	.415	1.283	9.870	36.710
9.		Experience of financial problem	.729				
10.	Academic problem	Are you sure of your future based on academic course curriculum?	.836	.236	1.178	9.062	45.772
11.		Inconsideration and insensitive lectures	.493				
12.	Environmental problem	How often do you experience academic work load	.886	.272	1.074	8.259	54.031
13.		Problems of congested classroom	.472				

The reliability coefficients for five factors ranged from 0.236 to 0.553 (Table 4) indicating a fair to good internal consistency among the items of each dimensions. Five factors have been extracted which accounts for 54.031 percent of variance. The percentages of variance explained by factor 1 to 5 are 16.569, 10.271, 9.870, 9.062 and 8.259 percent respectively.

The names of the factor statements and factor loadings have been summarized in Table 4. Further, the five factors that defined these characteristics have been assigned suitable names according to the nature of variables loaded on each factor. The five factors are: personal problem, relationship problem, social problem, academic problem and lastly environmental problem. Each of these factors is discussed below:

Factor-1: Personal problem: The first factor explained highest variance of 16.56 %. Four statements related to personal problem are loaded to this factor. The factor has been named personal problem as, it consists of statements like: experience of power failure, transportation problems, personal illness, and accommodation problems. Students needed these facilities as majority of them are hostellers in the present study and away from their family. Moreover they have to manage each and everything at their own. If students are not able to manage they feel frustrated and helpless.

Factor 2: Relationship problem: the second most important factor accounts for 10.27% of the variance. Three statements load high on to this factor. The factor includes statements such as, problems with opposite gender, parents, and course mates. The factor has been named as, relationship problems as the statements belonging to this factor reveal that some time students miss their family and do not mix-up with their course-mates. Hence relationship problems lead them to an isolated environment, if nobody is there to handle them. Relationships may make your life successful if handled properly and under stress if not able to manage.

Factor 3: Social problem: The third noteworthy factor accounts for 9.87% of the variance, with high loading of two features, has been named as social problem. The factor incorporates the statements such as, death of a class-mate or family member, experience of financial problem. Hence it can be concluded that man is a social animal and cannot live in isolation. Every student wants good friends and obviously attached with them. When students faced with stress, family support is needed to come out from it. College students are at advantageous stage to take benefit of their family support, members and it also helps them to identify their interest and capabilities, so as to escape from high hopes and leads to further stress.

Factor 4: Academic problem: The fourth factor that surfaced from the factor analysis accounts for 9.06% of the variations and has been designated as academic problem.

The Eigen value of 1.178 denotes that the factor is of moderate significance to the respondents. The two statement incorporated on this factor is related to future based on academic course curriculum, inconsideration and insensitive lectures. The reason being is that, days were the gone when everybody gets the job with any qualification, now the trend is towards all round development and moreover practicality is somewhat different from academic curriculum. Today it is a need of an hour to come out from stress and follow the healthy path to proceed further in the jobs and career as well. Colleges are somehow lacking stress-removing courses in their catalogue.

Factor 5: Environmental problem: The last factor, accounts for 8.25% of variance with a load of two statements. The two integrated statements of this factor incorporates, environmental problem. Consequently, it is named as environmental problem as two statements have been loaded like experience academic work load, problems of congested classroom .Thus this statement reveal that the respondent felt stress due to congested classroom and extra academic burden on them. College students are the key indicators in managing the stress. Firstly, they take stress from various mediums and change it into frustrations and nervousness leads to poor management of stress. Secondly, students are not good at handling their emotions, so if they manage properly by becoming emotionally intelligent, nothing would happen to them.

Hence it can be concluded, if any stress occurs, identify the reasons of stress with a constructive attitude and pursue keys from professionals.

Objective 2: To Assess the Relative Significance of these Factors on Overall Stress Management among Students

The factor solution obtained in the above objective shows that there were no cross loadings. Therefore, the factor solution reflected to reveal significant validity and reliability, and hence, can be used for further analysis. To attain second objective to assess the significance of these factors on overall stress management, scores of the factor were calculated and treated as independent variables in the linear regression analysis. The student's response with feeling stress was used as the dependent variable.

Linear regression analysis has been used to calculate the effects of independent variables (personal problem, relationship problem, social problem, academic problem and environmental problem) on dependent variable (Feeling stress or not). From Table the model indicates that approximately 7.1 per cent ($R^2 = 0.071$) of the variance in feeling stress are jointly explained by five independent variables (personal problem, relationship problem, social problem, academic problem and environmental problem). The F value = 2.212 at $p < 0.000$ suggesting that the five independent variables have significantly explained 7.1%

of the variance in feeling stress or not. However, it was seen that only relationship problem and environmental problem had a significant relationship on stress management at 95 % confidence level with standardized beta of .159 (relationship problem) and .145 (environmental problem) where p < 0.05.

On the basis of above results, model can be established. The Projected regression model is as follows:

$$Y = a + b1x1 + b2x2$$

$$Y = 1.540 + .080(\text{Relationship problem}) + .072(\text{Environmental problem})$$

Where the dependent variable is Y = feeling stress or not, and the independent variables are: PP = Personal problem, RP = Relationship problem, SP = Social problem, AP = Academic problem and EP = Environmental problem, and å = Error Term.

In order to assess the relative significance of these factors on overall stress management among students, regression analysis has been used. Table5 illustrates the results of the regression analysis (all the variables were entered at the same time).

Table 5: Regression Scores

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.267a	.071	.039	.49020	.071	2.212	5	144	.050	3.070

a. Predictors: (constant), REGR factor score Personal problem, REGR factor score Relationship problem, REGR factor score, Social problem, REGR factor score Academic problem and REGR factor score Environmental problem for analysis 1.

b. Dependent Variable: Q. Do you feel under Stress?

Results from the above analysis reveal few interesting facts. The value of the linear correlation coefficients (R) between the independent variables and the dependent variable was .050. The R2 for the model was .071, thus showing that about 7.1% of the variability in the outcome is accounted for by the predictors (independent variables). The adjusted R2 for the model is .039, and it can be seen that the difference between the values of R2 and adjusted R2 (.071 - .039 = .032 or 3.2%) is not very high. This implies that if the model was derived from the population instead of the sample, it would have accounted for approximately 3.2% of less variance in the outcome. The f statistic obtained is 2.212 (p-value = 0.050), thus indicating that the independent variables have a significant influence on the dependent variable at 5% level of significance, and that the model is effective. Collinearity diagnostic

confirmed that there are no concerns of multicollinearity. The variation Inflation Factor was less than 2 for the above model as shown in Table 6.

Table 6: Coefficients(a)

Model	Unstandardized Coefficients		Standardized Coefficients β	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
Constant	1.540	.040		38.476	.000	1.000	1.000
Personal problem	-.039	.040	-.079	-.983	.327	1.000	1.000
Relationship problem	.080	.040	.159	1.982	.049*	1.000	1.000
Social problem	.058	.040	.116	1.439	.152	1.000	1.000
Academic problem	-.037	.040	-.074	-.924	.357	1.000	1.000
Environmental problem	.072	.040	.145	1.800	.044*	1.000	1.000

a Dependent Variable: Q6.Do you feel under stress?
*Note: * shows significant values at 5% level of significance.*

Conclusion:

The present study is an effort to explore the factors that affect the individual stress level, identify the sources of stress among students and suggest the various coping mechanisms to fight with stress. The study is based on the sample of 150 respondents from different colleges of Hisar district of Haryana state. The study employs factor analysis, where the 13 statements are reduced to five principal components through varimax rotation. The study shows that derived factors have been assigned appropriate names according to the variables that have been loaded on each factor. The named factors are: Personal problem, relationship problem, social problem, academic problem and lastly environmental problem. Hence it can be concluded that students get stressed from personal, relationship and social problems. Students do not much bother about the academic and environment related problems and that is

not creating so much stress. Furthermore colleges are now focusing on this stress related problems and taking steps in this direction.

The results have also shown that relationship problem and environmental problems are significant (â = .159, t = 1.982, and p = .049; â = .145, t = 1.800, and p = .044, respectively) and explained the deviations in stress management. This can be

To a certain extent, this can be recognised to the point that students of colleges are usually facing stress more from relationship and environmental problems. Therefore, it can be concluded that student's identify themselves with these factors like personal, social and academic problems do not have a significant influence for creating stress. In the present study, majority of the students were, in general, feeling stress from relationship and environmental problems and can be solved with their own efforts. In the end, the

researcher would like to add a practical and inventive method by colleges, for example, make availability of student's education regarding stress management, art of living campaigns, focus on redesigning of general courses on stress and stress-coping approaches, merge with students' mind-set and instil them the ways to lessens beside stress management aids. Students are in a position to detect stressors, coping with it and pursue support through appropriate education. Teachers should motivate students with poor academic achievement to reduce their problem with learning. Instead college students should also respond to their physical as well as mental health and time to time observe their feelings to avoid arrival of stress-induced depression or physical disorders. Moreover, they should admit, ready to comprehend and identify them, have a constructive outlook towards getting along with their friends and commendably manage their emotions so as to develop positive relations. In the whole learning process they should develop an undeterred spirit.

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Implications of Tobacco Industry in India

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ABSTRACT

Indian tobacco industry is one of the largest commercial sectors and an important source of direct and indirect employment in many regions of the country. With a total production value of US$ 1.6 trillion in 2012, the Tobacco industry's contribution to the nation's GDP amounted to 1.1% representing about 7% of the total for the manufacturing sector. Tobacco, being a labor intensive crop, provides employment to more than 60 lakh people who are engaged in the farming, curing, grading, primary marketing, processing, packaging, manufacturing, distribution, and retailing activities besides exporting.

In this backdrop, this study analyses different important factors of tobacco business in India such as Operating Environment, Legislative provisions, Taxation and Duties Levied, and Illicit Trade practices. Study provides a very deep insight into the overall structure of tobacco industry and also analyzes economics of tobacco versus other alternate crops, and an analysis of the future of the tobacco industry in India.

Keywords: Tobacco Industry, Cigarette Production, Trends in Tobacco Industry, Illicit Tobacco Trade, Flue Cured Virginia (FCV)

The Indian Tobacco Industry: An Overview

Tobacco is a principal cash crop of national importance in India. It has been playing a prominent role in the development of nation's economy. Although the cultivation of tobacco in India is restricted to only 0.3% of the total cultivated area, it offers employment to a enormous number of people on the one hand and makes significant contribution to National Exchequer on the other hand by way of earning excise and foreign exchange revenues. Tobacco, being a labor intensive crop, delivers employment to more than six million people who are engaged in the farming, curing, grading, primary marketing, processing, packaging, manufacturing, distribution, and retailing activities besides exporting. The bidi industry which provides employment to around 44 lakh people, essentially unskilled rural people mostly women is also

arresting the influx of rural labor to urban India.

Although there are many nationwide anti-tobacco campaigns, the commercial importance of tobacco can never be underestimated due to its revenue earning potential and employment generation capability. At present, there is appeal for substitution of tobacco with alternative crops, but the research findings show that there is no economically viable alternative crop which is as remunerative as tobacco to the farmers.

The Indian tobacco market grew at a strong rate during the period 2006-2012, as there is strong sales growth in the cigarettes, loose tobacco and the cigars categories. Although overall market growth is expected to accelerate in the projected period, the annual growth rate is set to fall from a high of 7.2% in 2012 to a low of 5.9% in 2015.

FY 2013 was a challenging year for the tobacco industry in India. The escalation in excise duty exerted burden on the volumes as well as margins of the domestic tobacco companies. The tobacco production catalogue tripped in the first half of FY13, but showed an impressive recovery in the last quarter of the FY12. On a per capita basis, consumption of cigarettes in India is the lowest among Asian countries. The prevalence of the low cost substitutes like bidis and hookah are the reasons for this low consumption.

Industry Value Analysis

Indian tobacco occupies 10% of the area and 11% of the total world tobacco production. With an annual production of 683 million kg. , India ranks 3rd in the world only after China and Brazil. India is the 3rd largest producer of FCV Tobacco with 267 million kg. Tobacco leaf production in India witnessed an increase by 34% with 683 million Kg. during 2012 as compared to 507 million Kg. in 1990. However, there is no substantial increase in the productivity of tobacco by 2012 as compared to that of 1990.

India is the 2nd largest exporter of unmanufactured tobacco in the world with a volume of 203 million kg and exports to more than 100 countries in the world. The same rank holds good as exporter of FCV Tobacco also with a volume of 150 million kg. India is also the 10th largest producer of Cigarettes with an annual production of 109 billion sticks.

There are several reasons that explain the expansion of land use for tobacco production. First of all, according to Indian agricultural specialists, tobacco is a cash crop that is easy to cultivate and economical to maintain. Additionally, tobacco farmers can also cross plant between the tobacco crop seasons so that the residuals of one tobacco crop can be used as fertilizer for another crop. Second, the economic returns from tobacco leaves are much higher than other grain crops. However, it should be distinguished that the price of tobacco leaves vary by as

much as 20 times, depending on the leaf quality. Third, hilly mountains (that Indian tobacco experts claim), have to rely on tobacco production as the main source of revenue for growers, given the climate and land soil conditions. Fourth, Tobacco Board sets a fixed production quota for each farmer to produce tobacco every year, after assessing demand-supply scenario for that year.

Its economic contribution to India's GNP is significant, both at the national level, where excise earnings of US$ 3.6 billion accounts for 10% of the government's total income from excise revenues, and at the state level, where native taxes earn around US$ one billion annually.

India is the world's third largest consumer of tobacco products. The consumption patterns are unique and fragmented and a taxation system that penalizes cigarettes (15% of total market share) over other traditional tobacco products such as bidis, chewing tobaccos, which together account for the balance of 85%.

Fig 1: . Consumption and Revenue share
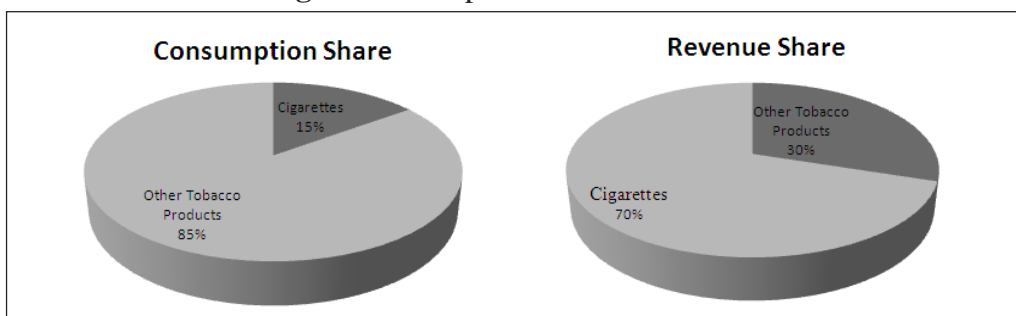
Cigarettes account for only 15% of tobacco consumption but contribute 70% of tax from tobacco whereas other tobacco products contribute only 30%.

INTRODUCTION OF STUDY

This study included Informal Interviews with a sample of 30 respondents including Farmers, Managers and Supervisors of ITC Ltd and Tobacco Board. It revealed the important aspects of Legislation and would help to know insights of Tobacco Market in India.

Purpose of the Study

1) To study the Operating Environment and Legislation of Tobacco Marketing in India.

2) To Study Taxation, Duty Levied & to forecast sales for Tobacco & Cigarettes in India.

3) To check movements across marketing and advertising.

4) To Study Micro and Macro Environments for Tobacco Industry in India.

OPERATING ENVIRONMENT

Smoking Prevalence: In 2012, there were 275 million smokers in India. The male smoking prevalence stood at 26%, equivalent to 210 million men, while the female smoking prevalence mounted to 5%, equivalent to 65 million women. The cause for higher smoking prevalence among men is that it is culturally frowned upon in India for women to smoke. The incidence of tobacco consumption, especially in smoking, is on the rise among teenagers and youngsters.

Tobacco consumption in India is extensive and an inherent tradition. In spite of the government's execution of several measures, comprising smoking bans and high tobacco taxation, the smoking prevalence has remained more or less consistent since the 1990s. Smoking is considered to be quite fashionable, especially among youngsters. Most consumers of tobacco have addicted to the habit before reaching the age of 18-years-old.

While smoking has always been socially acceptable in India, the bulk of it is consumed in the form of bidis. With growing disposable incomes, still, consumers are estimated to shift to cigarettes. Cigarettes are deliberated to be fashionable and young executives smoke them to fit in with their peer group. With rapid urbanization and increasingly hectic and nerve-wracking way of life, smoking is seen as a way to relieve pressure.

It is estimated that by 2020, Almost 35% adults in the age group of 15 years and above consume tobacco in India (47% men and 21% women).

Table 1: Number of Smokers by Gender 2007-2012

	2007	2008	2009	2010	2011	2012
Total No of Smokers	105,908	108,241	136,526	193,743	235,836	275,074
No Of Male Smokers	91,374	93,583	118,742	163,468	186,451	210,062
No Of Female Smokers	14,533	14,657	17,784	30,275	49,385	65,012

Source: world health organization statistics, 2012

LEGISLATIVE PROVISION

Legislative Overview: Indian Government has one of the toughest anti-smoking policies and regulations in the world. Above and beyond being one of the first countries to legalize the global FCTC agenda in 2004, India was now one step ahead, having ratified and approved the Tobacco Control Act and COTPA in 2003. In addition to strict government strategies, social smoking is fetching less tolerated. Several NGO's and civil welfare

associations form a strong anti-smoking lobby and act as pressure groups for enacting new legislation and enforcing existing legislation. Some of these key organizations include the NOTE (National Organization for Tobacco Eradication), ISAS (Indian Society Against smoking) and ICAT (International Coalition against Tobacco).

The Indian Government remains decisively committed to its objective of reducing tobacco consumption in the country. In an effort to achieve this, it will continue to increase taxes on tobacco products, constitute against smoking in public places and fund health awareness campaigns to make people aware of the dangers of tobacco consumption. It will also continue working to ensure that the regulations outlined under the FCTC are adhered to. Despite the government's intentions, however, it is likely that efforts to reduce tobacco consumption will continue to be overly involved by poor administration of anti-tobacco laws, particularly the widespread failure to reprimand retailers who sell tobacco products to under 18-year-olds.

Tar Levels: Tar levels for high tar cigarettes in India vary from 12.80 mg to 21.39 mg, and for low tar cigarettes from 5.12mg to 5.46mg. Since 2006, according to COPTA (Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Act, tobacco companies have not been allowed to label cigarettes as "light", "mild", "low tar", "slim". However, since 2007, it has been mandatory for all tobacco manufacturers to mention the percentage of nicotine in their products.

Efforts to reduce the nicotine and tar content of cigarettes in India are enduring. During the review period, some triumph was achieved via the use of special fertilizers and new techniques in tobacco leaf cultivation.

According to CTRI report in 2010, Tar and Nicotine levels in Indian cigarettes were dropped by 10%. The average tar content in a regular 65 mm cigarette fell from 17 mg to 16 mg, while the average nicotine content fell from 2.0 mg to 1.5 mg.

There is no legislation in India for specific tar levels in cigarettes. On the other hand, the government is projected to take an increasingly strict action towards eradicating cigarette smoking in the country. But, even if this does take place, Indian consumers are anticipated to switch to high tar cigarettes, due to their fondness for strong nicotine flavors. In 2013, high tar cigarettes are still projected to account for 99% of volume sales.

Although mid tar and low tar cigarettes will continue to account for only a small percentage of volume sales over the forecast period, they are estimated to post additional dynamic volume growth than high tar cigarettes. In light of increasing health consciousness, Indian smokers gradually are certain of mid tar and low

tar cigarettes to be less harmful than high tar brands. Lower tar cigarettes are especially attractive to female smokers and new smokers. Besides, rising disposable incomes will also make low tar and mid tar cigarettes affordable to the average Indian consumer. As a result, volume sales of mid tar and low tar cigarettes are expected to grow by 47% and 34%, respectively, over the forecast period.

Health Warnings: In 2006, amendments to the Cigarettes and Other Tobacco Products (Packaging and Labeling) Act by the Ministry of Health made it mandatory for all tobacco manufacturers to display graphic written and pictorial health warnings on their products from the year 2007. Packaging for all tobacco products sold in India must feature a skull and crossbones symbol or a picture showing the damage that smoking can do to the human body. The aim of pictures like cancerous lungs, rotten teeth and diseased throats is to make smokers abandoned. Packing must also convey printed warnings in native languages, such as "Tobacco causes a slow and painful death". These warnings need conquer at least 50% of the front and back cover of cigarette packs. Additionally, all cigarette packs are demanded to carry a statutory warning "Cigarette smoking is injurious to health".

ADVERTISING & DISTRIBUTION

India has one of the toughest legislative council concerning advertising of tobacco products, in a bid to reduce tobacco consumption. According to COPTA (Cigarettes and Other Tobacco Products (Prohibition of Advertisement and Regulation of Trade and Commerce, Production, Supply and Distribution) Act, all forms of tobacco advertising, in all types of media like television, radio, outdoor or press, have been banned since FY2004.

Not only direct advertising, but also all proxy measures, are prohibited in India. The law prohibits use of any brand name of any tobacco product for marketing, promotion or advertising of any other goods, services or events. According to this rule, The Company GPI Ltd has renamed its "Red and White Bravery Awards" which were named after one of its prominent brands, Red & White as the Godfrey Phillips Bravery Awards.

The restriction on tobacco advertising provoked some companies to develop more creative marketing strategies. For example, Golden Tobacco Ltd launched Chancellor XP, a cigarette brand positioned as a choice for Indian IT workers. While the "XP" in the brand name apparently refers to its "extra superior" status, it is also recommended as a fine reference to the well-known Microsoft operating system, Windows XP. To strengthen the association with Indian IT professionals, the company added the tagline "Luxury blend – for the finest minds in India".

Supermarkets/hypermarkets increased its volume share during the review period. Cigarettes are usually stocked behind the cash counters, as there

is no legislation which prohibits this or prescribes restrictions on display areas. However, as in other cigarette distribution channels, no form of advertising is permitted. Companies use elusive measures, such as having innovative, high-quality display counters/cabinets to help attract customers.

Table 2 : Leading Manufacturers of Cigarettes in India

Name of the Company	% of Share	Licensed Capacity (Bn Sticks)
ITC Ltd	74	123.55
Godfrey Phillips India LTD.	15	18.75
VST Industries Ltd	7.38	25.60
Hilton Tobaccos	1.66	05.00
Golden Tobacco Ltd	1.37	14.50
NTC Industries	0.10	15.70

% of share calculated by taking the last 3 financial year's cigarette production

Distribution of cigarettes in India is led and managed by the leading manufacturers, and there are no government protocols and restrictions. The typical supply chain has the company warehouse at the origin, from where cigarettes move to company-appointed clearing & forwarding agents, which then dispatch to regional distributors which are also appointed by the company. The distributors forward the cigarettes to the widely fragmented retail base of shops within their regions, typically using their own vans and employing salespeople who call on shops to book orders, followed by supply from the distributor. In the case of rural distribution, it is often not cost-effective for companies to establish such a formal system. Instead, they are restricted to being able to move down to the small town level of wholesalers.

Under FCTC rules, tobacco products can only be advertised at POS locations, and even here, there are restrictions in India on the content, size and number of ads. Only two advertising boards gauging three by two feet can be displayed at point of sale locations, and the boards cannot be adorn or illuminated. Mandatory warnings such as "Cigarettes will not be sold to people below 18 years of age" and "Usage of tobacco is injurious to health" must be displayed at all point of sale locations for all tobacco products. These restrictions allow retailers to demand huge premiums from tobacco companies in exchange for promotion and publicity. Shelf space is also sold at premium prices, in both kiosks and retail outlets operated by street vendors. All tobacco companies hold exclusive contracts with retailers to ensure that their brands are allocated the most visible shelf locations, and organized so that the front side of the packs and the brand name are facing outwards instead of sideways.

TAXATION AND DUTY LEVIES

Tobacco is one of the most highly taxed markets in the Indian economy. Despite the fact that it represents a comparatively small portion of overall tobacco consumption, cigarettes have traditionally been the main objective for taxation. For instance, during the review period, tobacco products accounted for 30% of total excise collection in India. However, 70% of all taxes collected from the tobacco market came from cigarettes, which accounted for only 15% of overall consumption in volume terms.

As in other countries, tobacco taxation is being used as a tool for tobacco control. Excise and state duties on cigarettes have crumpled over the last few years. All states have increased VAT on cigarettes beyond the approved rate of 12.5%. As a result of these increases the average VAT rate now stands at around 15%. So while Indians may be becoming more prosperous, the price of cigarettes continues to be beyond the reach of most tobacco consumers,

With cigarette tariffs 15 times higher than any other tobacco products, the tax prevalence is uttering tobacco consumption as high taxes on cigarettes is driving a shift towards the consumption of cheaper, low revenue products. Despite the government's intents to use tax increases to lower the incidence of tobacco use, the affordability of low-cost alternatives is in fact serving growth in overall tobacco consumption. Cigarettes segment of tobacco consumption has decreased from 21% in 1981/82 to less than 15% currently.

During the Union Budget for the fiscal year 2013-14, the Indian Government drastically raised the excise duty on cigarettes. The excise duty on cigarettes was increased by 20 times from Rs 168 per 1,000 sticks in 2007 to Rs 3360 per 1,000 sticks in 2012. The government imposed an additional duty on unfiltered cigarettes because they are considered to be more harmful than filtered ones.

The hikes in excise duty are causing a shift in consumption patterns. Companies are being enforced to pass on the excise burden to customers. With most consumers of unfiltered cigarettes being those from the lower income groups, the price increases are hitting them hard and pushing many to switch to bidis, Gutkha and other forms of chewing tobacco. These compete with the government's efforts, as bidis and chewing tobacco are known to be more harmful than cigarettes. Consumers are also projected to shift to illicit cigarettes, which are much economical as a result of tax avoidance.

The impact of increasing taxes on bidis and cigarettes on consumption, expenditure and government revenues are shown below:

Table 3: Simulation for Taxation on Bidis and Cigarettes

Tax Increase	Unit Price (Rs)	Tax Rate (%Retail)	Tax per Stick	Consumption (Billion Sticks)	Expenditure (Billion Rs)	Tax Revenue (Billion Rs)
Bidis						
0 %	0.159	9%	0.014	1000	159.1	14.0
20 %	0.162	10%	0.017	984	159.3	16.5
40 %	0.165	12%	0.020	968	159.4	19.0
60 %	0.167	13%	0.022	952	159.4	21.3
80 %	0.170	15%	0.025	936	159.4	23.6
100 %	0.173	16%	0.028	920	159.2	25.8
200 %	0.187	22%	0.042	840	157.1	35.3
400 %	0.215	33%	0.070	680	146.2	47.6
Cigarettes						
0 %	1.721	38%	0.659	108	185.0	70.9
20 %	1.853	43%	0.791	105	195.3	83.4
40 %	1.985	46%	0.923	103	205.0	95.3
60 %	2.116	50%	1.055	100	214.1	106.7
80 %	2.248	53%	1.186	98	222.7	117.5
100 %	2.380	55%	1.318	96	230.7	127.8
200 %	3.039	65%	1.977	84	262.4	170.7
400 %	4.753	78%	3.691	60	279.6	217.1
500 %	4.819	78%	3.757	58	278.3	217.0

Table 4 : Taxation and Duty Levies: Cigarettes 2006-2012

Note: AED denotes Additional Excise Duty   *Source: Central Excise Tariff*
However, From FY 2013& 2014, Government has changed the length & excise duty as well.

Table 5: Taxation and Duty Levies: Cigarettes 2012-14

Excise tax, including AED (Rs per 1,000 sticks)	2012-13	2013-14
Non-Filter		
Cigarettes of length 65 mm> X	689.07	689.07
Cigarettes of length 65 mm < X< 70mm	1769.54	2087.81
Filter		
Cigarettes of length 65 mm> X	689.07	689.07
Cigarettes of length 65 mm < X< 70mm	1229.82	1451.27
Cigarettes of length 70 mm < X<75mm	1769.54	2087.81
Cigarettes of length 75 mm < X<85mm	2378.27	2806.75
Other Cigarettes of tobacco	2871.64	3388.70

Source: Central Excise Tariff

PRODUCTION/IMPORTS/EXPORTS

Tobacco is one of the foremost cash crops of India. India is the third largest producer and the second largest exporter of raw tobacco in the world. Karnataka and Andhra Pradesh are the two major tobacco growing states. An ample part of India's rural economy is dependent on tobacco cultivation. The rich and varied Indian environmental and agro climatic conditions nurture the consistent availability of a wide range of tobacco for export all over the year. In 2012, India produced approximately 650 million kg of raw tobacco. Even though the bulk of tobacco exports are in the form of raw tobacco, India also exports tobacco products viz., Cigarettes, Bidis, Chewing tobacco, Hookah tobacco paste and Cigars.

Due to a global shortfall in production, Indian tobacco was very much in demand since 2008. Major players, including Philip Morris International Inc., British American Tobacco Plc. and Japan Tobacco Inc., gathered in India to meet their manufacturing needs. Brazil, the second tobacco producing nations in the world, encountered a scarcity in production due to unfavorable weather conditions. Production in Zimbabwe demolish from an average annual output of 250 million kg to just 60 million kg due to political instability.

Similarly, European countries encountered a decline in production due to the implementation of the FCTC, which imposed limits have just began to the amount of tobacco produced. Although India has approved the FCTC, its rules and limits are yet to impact production trends. Sharp rise in demand for Indian tobacco contributed to better/ remunerative prices. For example, the average farmer price for FCV tobacco was Rs. 150/- per kg during 2012 as compared to Rs. 65/- per kg during 2007.

In 2012, Exports in Indian tobacco increased by 20%. This generated foreign exchange revenue of Rs37.3 billion, compared to Rs30.9 billion in 2011. Cigarette exports have increased by 18%. India's primary cigarette export countries remain the U.A.E, the US, Romania, Saudi Arabia and Iraq.

In 1985, India exported tobacco products to nearly 50 countries. At present, India has tobacco trade with more than 100 countries. It seems that exports have determined the production of FCV tobacco in India. In 2012, tobacco contributed about Rs 4,100 crores towards foreign exchange earnings of India and Rs 17,415 crores to central excise revenues besides sizeable amounts in state taxes.

Table 6: Trade Statistics – Tobacco 2006-2013

In Million Kgs	2006-07	2007-08	2008-09	2009-10	2010-11	2011-12	2012-13
Production	596	611	692	750	733	683	NA
Imports	2.05	1.64	4.10	2.26	2.51	3.38	3.75
Exports	180.99	205.34	224.86	259.56	252.29	240.40	261.18

Source: Tobacco Board Statistics, 2012

ILLICIT TRADE IN TOBACCO

"Any cigarette that does not comply with Central and State laws, which include importing, manufacturing, marketing and payment of duties and taxes, is regarded as Illicit/contraband cigarette."

The volume of global illicit cigarette trade for the year 2012 was estimated to be about 613405.9 million sticks(9.4%), of the total world consumption of 6,498,056.3 million sticks, the balance 5884651.4 million sticks(90.6%) being the duty paid cigarettes.

In 2012, India was the sixth largest illicit cigarette market in the world with a volume of 22605.1 million sticks which accounted for 3.47% share of total world market.

The illicit cigarette trade in India increased rapidly during the period of 2006-2012, accounting for some 20.6 % of total cigarette volume sales during 2012. Growth rate in the illicit cigarette trade in India during 2006-2012 was 48% which is seventh highest in the world.

By 2016, the % share of illicit cigarettes is estimated to increase to 26.60% of total cigarette sales in India, by volume when compared to 20.80% in 2012. This will result in reducing the legal cigarette trade volumes to 77%.

Sources of illicit cigarettes

❖ **Illegal manufacturing:** Cigarettes manufactured illegally without paying duties. These unlicensed and unregulated manufacturing operators range from small improvised facilities to fully equipped manufacturing plants involving organized groups.

❖ **Smuggling:** A sizeable percentage of illicit cigarettes are through smuggling, often by way of sea containers or cross-border smuggling through borders

❖ **Counterfeits:** Illegal reproduction of common Indian cigarette brands, along with other foreign brands.

❖ **Other illegal forms:** For example, the reselling of legal cigarettes obtained through theft.

Ill effects of illicit Cigarette trade in India

❖ Deprivation of tax revenues to the Government- The loss of excise duty revenues to the Government on account of illicit cigarette trade during 2012was estimated to be about Rs. 2000 crores and the same is projected to be about Rs. 7500 crores by 2016, considering the growth of volume component of illicit trade in cigarettes from 26.60% during 2011 to 23% by 2016.

❖ Profits from the sale of illicit cigarettes are used to fund other illegal activities such as movement of drugs, weapons and money laundering, thus becoming a serious threat to public safety.

❖ Reduction in demand for tobacco produced in India as the cigarettes

smuggled into India are not of Indian tobacco.

❖ This will also result in reduced price realization by tobacco farmers due to reduced demand for tobacco by the legal tobacco trade.

❖ This consequently will affect the livelihood of 5 million farmers and 33 million others associated with the tobacco Industry.

Table 7: Illicit Trade in Cigarettes during 2006-12 (In Million sticks)

	2006	2007	2008	2009	2010	2011	2012
Legal Sales	101084.0	99768.6	91151.4	93322.8	95564.7	102768.5	108657.3
Illicit Trade	13474.3	14553.2	16736.1	17581.8	18627.1	20305.0	22605.1
% share of penetration	13.3	14.58	18.36	18.83	19.49	19.75	20.80
Total Consumption	114558.3	114321.8	107887.5	110904.6	114191.8	123073.5	131262.4

Source: FCTC Statistics, 2012

Market Data:

Increasing trend of tobacco products sale during 2007-12 have been presented in table 8 and likewise forecasting of sales for 2012-17 has been presented in table 9 which clearly establishes the significant levels of sale increase.

Table 8: Sales of Category wise Tobacco Products, by volume during 2007-2012

	2007	2008	2009	2010	2011	2012
Cigarettes(mn Sticks)	101084.0	99768.60	91151.40	93322.80	1,11,487	102768.50
Cigars (mn Units)	9.50	11.90	13.50	14.70	16.80	18.40
Smokeless Tobacco(tons)	565,037.70	590,990.10	630,758.0	650,375.0	678583.0	700693.0

Table 9: Forecast Sales of Category wise Tobacco Products, by volume during 2012-2017

	2012	2013	2014	2015	2016	2017
Cigarettes(mn Sticks)	102768.50	97074.40	97016.66	96958.91	96901.17	96843.43
Cigars (mn Units)	18.40	20.17	21.89	23.62	25.35	27.07
Smokeless Tobacco (tons)	700693.00	732140.00	759587.80	787035.60	814483.40	841931.10

SWOT Analysis of Tobacco in India

Strengths

➢ India is one of the largest manufacturers of tobacco.

➢ Amounts for 5.8 % of the international trade and ranks 5th after Brazil, USA, Turkey and Zimbabwe.

➢ **Export potential:** Indian tobacco has an edge over the leading tobacco producing countries like USA, Brazil, Zimbabwe and Malawi in terms of low production cost, average farm price, average export price, low conversion cost of tobacco into cigarettes, low ocean freights from India and availability of processed quality tobacco in threshed lamina form at export price well below the farm prices in USA. Hence, Indian tobacco is considered as 'value for money'. Some of the other positive and significant features of Indian tobacco are: lower levels of heavy metals like cadmium and lead, tobacco specific nitrosamines, and pesticide residues, free from blue mold disease, a quarantine problem compared to other tobacco producing countries.

➢ India is endowed with favorable climate and vast land available and by virtue of these features; the country has the potential to produce FCV tobacco of different styles, ranging from the color neutral filler to flavorful leaf catering to the requirements of different importing countries. Now, customer preference is increasing for naturally grown neutral fillers with low to medium nicotine, suitable for easy blending and the light soil tobacco.

Weaknesses

➢ Increased Taxation.

➢ Badly developed relations between producer and buyer.

➢ In India, mostly filler to semi-flavorful type of tobacco is produced and only low proportion of flavorful tobacco is available for export which is considered as the important factors for low export earnings. However, internationally there is great demand for flavorful tobacco.

➢ Due to non-availability of export surpluses of quality FCV, oriental, burley and cigar tobaccos in large quantities, inadequate market intelligence and meager exports of value added products, the full export potential is not being utilized.

Opportunities

➢ Research for development of alternative use of tobacco in view of anti- smoking campaign/sentiments.

➢ Significant opportunity for exports: In recent years, there is considerable drop in tobacco production in USA and Zimbabwe, due to various reasons.

➢ The multi-nationals are shifting to sources of quality FCV tobacco at a competitive price.

➢ Availability of suitable areas for producing semi-flavorful and flavorful tobaccos and the possibility for improving filler tobacco to neutral filler and superior quality filler provide excellent opportunity for India.

- Now, Iraq, Egypt, Algeria, Nepal, Singapore and Bangladesh are promising markets for Indian FCV tobacco and small markets like France, Portugal, Spain, Australia, Tunisia, Morocco and Finland could become potential markets in future. Also, there is wide scope for export of value-added tobacco products like cigarettes and scented bidis.

- With the identification of several tobacco phytochemicals beneficial to mankind, exploitation of tobacco for alternative uses is another promising opportunity.
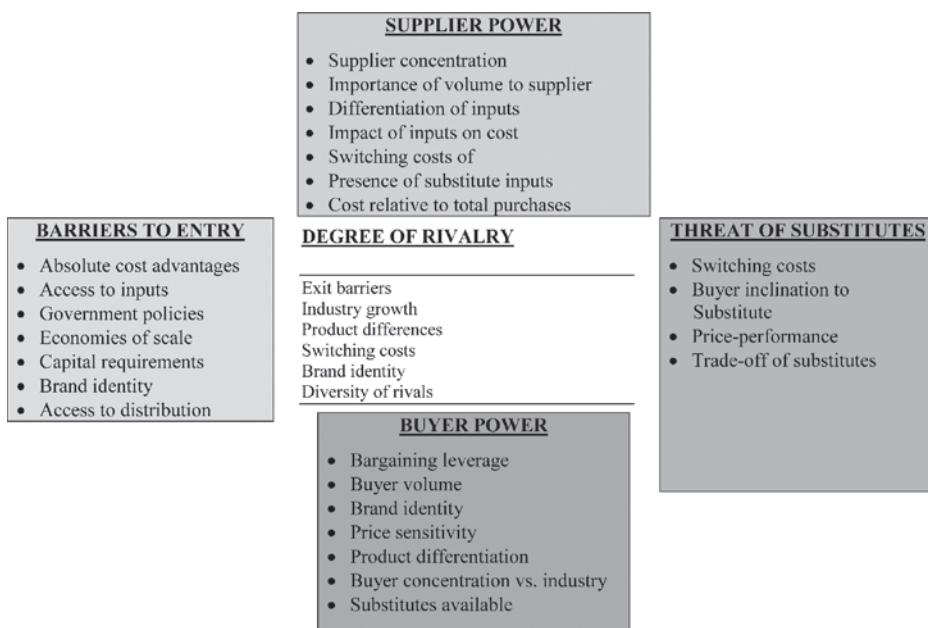
Threats:

- Total ban on direct and indirect advertisements of all tobacco products.

- Prohibition on sponsorship of sports and cultural events which encourage tobacco use; ban on smoking in public places; eroding social acceptability of smoking.

- Pressure from anti-tobacco lobby and stringent regulations being enforced various by governments in India, are posing a major threat to tobacco production.

- Increase in cost of production day-by-day and competition from China due to its low cost of production are likely to influence tobacco exports from the country.

- Tobacco cultivation may be forced out of traditional areas due to high value competitive crops and high labor cost.

- Large scale of smuggling of cigarettes into the country is a major problem faced by the Indian cigarette industry.

Porter's Five Forces Analysis

Figure 2: Porter's Five Forces Analysis

SUPPLIER POWER
- Supplier concentration
- Importance of volume to supplier
- Differentiation of inputs
- Impact of inputs on cost
- Switching costs of
- Presence of substitute inputs
- Cost relative to total purchases

BARRIERS TO ENTRY
- Absolute cost advantages
- Access to inputs
- Government policies
- Economies of scale
- Capital requirements
- Brand identity
- Access to distribution

DEGREE OF RIVALRY

Exit barriers
Industry growth
Product differences
Switching costs
Brand identity
Diversity of rivals

THREAT OF SUBSTITUTES
- Switching costs
- Buyer inclination to Substitute
- Price-performance
- Trade-off of substitutes

BUYER POWER
- Bargaining leverage
- Buyer volume
- Brand identity
- Price sensitivity
- Product differentiation
- Buyer concentration vs. industry
- Substitutes available

New entries:

- The barriers to entry in the tobacco industry are initially low and it is easy for small, local and regional companies to enter into the market, but the barriers to enter the market nationally are very high.

- The economies at scale in manufacturing, distribution costs, and marketing at the national level make it literally impossible for start-up companies to enter into the national market. There are substantial costs in raising the capital needed to build manufacturing facilities that can mass-produce tobacco products at the national level. Also, the costs of packaging goods such as cigarettes, at a mass level can generate high costs.

- Brand identity can also pose a barrier to entry for new entrants. Advertising restrictions imposed on electronic media by the Indian government make it hard for any new entrant to gain brand awareness and also make it difficult for current top players in the market to increase their brand awareness.

- Cigarette brands already have a huge stake in the market place. They have generated a lot of brand loyalty and awareness making it difficult for a new company to generate enough brand awareness to enter the market.

Buyers bargaining power:

- Buyers in the tobacco industry are greatly affected by the economy and the level of their disposable income. Whenever a buyer's disposable income declines, they are more likely to purchase cheaper brands of tobacco, and if a buyer's disposable income increases, then they are more likely to buy more expensive brands. Buyer power was displayed in 2008 when ITC Ltd. increased their prices on leading brands such as Gold Flake Kings by 20% due to taxation, thus many other leading companies also increased the prices of their popular brands which resulted decline in sales.

- Consumers in the India are now increasingly becoming more concerned with health issues. Consumer health awareness has hurt the market for tobacco sellers and has also led to the increase for government regulation. Many companies are now going international to focus on the increasing demand for tobacco products abroad. They are focusing on developing countries where the population is increasing and many of these countries have less government regulation, which can help with advertising and prices. Countries that have less taxation on tobacco sales can lead to higher revenues and sales of tobacco products because the costs involved are less.

Supplier bargaining power:

- In the tobacco industry, farmers supply the tobacco to dealers, exporters and manufacturers. Farmers usually sell their tobacco at auctions to the highest bidder. India grown FCV tobacco is generally less expensive than non- India grown FCV tobacco because of lesser production costs. However, in recent news many tobacco farmers are protesting for the entire buyout of their quotas and curing facilities. They say that the tobacco growing industry is on the verge of disappearing and they blame the high taxes on cigarettes.

Threat of substitutes:

- The biggest substitute for tobacco users is to just quit using any type of tobacco product. With health awareness on the rise in India, there are many products and services available to help people stop using tobacco.

- There are many government websites that offer tips and health facts that influence users to substitute tobacco use for a healthier lifestyle; also many of these sites offer online counseling or hotlines to assist in stopping.

- Over-the-counter drugs such as Nicotine gum, patches, nasal spray, inhalers and others are substitutes to any tobacco product that can pose a negative effect on tobacco sales.

Another substitute that is now being used are prescription pills that can be prescribed by doctors to those who wish to quit smoking.

- Buyer propensity toward tobacco substitutes seems to have increased over time with the evidence that smoking can lead to health risks such as lung cancer, emphysema, heart disease, pregnancy complications, and other health problems.

- The benefits for a consumer to quit smoking, such as a healthier life and longer life expectancy are also driving buyer propensity towards substitutes. Also the costs involved with switching to substitutes or stopping the use of tobacco can play a big role in a buyer's choice to switch to a substitute. For instance, quitting smoking with the use of substitutes can have a huge impact on a consumer's personal finances.

Competitive rivalry:

- Within the tobacco industry there are three main competitors that control 95% of the domestic market. These three main players are: GPI Ltd, VST Industries Ltd and ITC Ltd, India's largest tobacco company since 1983 controlling 74% of the market share in the year 2012. ITC's leading brand Gold Flake Kings had a 31.5% share of the market in 2012; thus, displaying the importance of brand identity in the tobacco industry.

- For the cigarette industry unit volumes have declined and the price of cigarettes has increased, thus creating higher net revenue for companies. Many companies are using cost efficient strategies to help gain profits in the industry.

- Rivalry in the Cigarette sector of the tobacco industry has been a strong focus of the leading companies in recent years. High, mid and low Tar cigarettes offer a chance for domestic growth opportunities and premium pricing in the tobacco industry. Other potential areas of domestic growth in the tobacco industry include cigars, which are on the rise again; and snuff or smokeless, which is one the rise due to smoking restrictions in public places.

CONCLUSION

Market and marketing system play a dominant role in ensuring remunerative price for commercial crop like Tobacco. There has been substantial improvement in the marketing of FCV Tobacco with establishment of Tobacco Board. The production and marketing of FCV Tobacco have been statutorily regulated by the Tobacco Board. But the cultivators of other varieties of tobacco are at the mercy of unscrupulous traders and middlemen.

Cigarette industry in India is essentially capital intensive in nature. The growth of cigarette industry both in domestic and international market represents a big revenue opportunity for the economy. But the burden of Tobacco tax has increasingly shifted to cigarette with the removal of duty on raw Tobacco since 1979, resulting in discriminatory rates of duty compared to other Tobacco products.

Efficient and effective administration of tobacco tax systems enhances tax compliance and collection of tax revenues while reducing tax evasion and the risk of illicit trade.

Parties should ensure that tax systems are designed in a way that minimizes the incentive for users to shift to cheaper products in the same product category or to cheaper tobacco product categories as a response to tax or retail price increases or other related market effects.

Recommendations:

Following are the Suggestions related with Tobacco Industry which should be considered for Union Budget 2014-15.

- **Cigarette taxation under GST should be revenue neutral:** GST on cigarettes should be levied at the uniform Standard Rate applicable to the general classification of goods, with availability of Input Tax Credit. Although central excise duty would last to be levied, it is critical that the combined incidence of excise duty and GST on cigarettes remain revenue neutral. This could be accomplished by a suitable reduction of the existing rates of excise duty on

cigarettes. Assumed the incompatibility of an ad-valorem duty structure for a highly taxed product like cigarettes, GST should be levied at precise rates.

- **Maintain tax stability in Excise Duty rates:** Excise Duty rates should be kept unchanged to leverage the tax efficiency of cigarettes by encouraging shifts from non-cigarette forms of consumption. This, in chance, will exploit contribution to the Exchequer, even in a dwindling basket of overall tobacco consumption.

- **Continue with various price points, length/size based specific excise duty structure:** This structure is best suited to India as it caters to the country's wide range of income distribution and enables positioning of brands at convenient and reasonable price points. It has verified to be tremendously successful over the years as it has ensured increasing revenue collections in a litigation-free environment with no valuation disputes and transparent government. In addition, it provides for value-addition to achieve international quality standards and improved farmer earnings through usage of high quality tobaccos and increased exports.

- **Revise the existing length slab for filter cigarettes** by merging the first 2 slabs of "not exceeding 65 mm in length" and "exceeding 65 mm but not exceeding 70mm in length" into one slab "Cigarettes not exceeding 70mm in length" and reduce excise duty rate to Rs.600/- per thousand cigarettes: This would expand the tobacco tax base and combat the growing menace of illicit (Re. 1/- per stick) filter cigarettes. It would also allow the cigarette industry to offer products at convenient and affordable price points that would address the wide range of income distribution in the country.

- **Comprise tax elusion by unscrupulous manufacturers:** To prevent revenue losses, excise duty evasion by small manufacturing units should be controlled through compulsory licensing, stricter surveillance and harsher penalties.

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