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CONSUMER BUYING BEHAVIOUR OF PENS – A STUDY ON TODAY’S PENS**Prof. (Dr.) Puja Walia Mann¹, Manish Jha² and Dr. Sushil Sharma³**Professor¹ & Dean, Samalkha Group of Institution, HaryanaSr. Assistant Professor², Fairfield Institute of Management & Technology, New DelhiReader³, University School of Management, Kurukshetra University, Kurukshetra

ABSTRACT

Pen is a product, which is used by each and every person. There are various Brand's of pen in the market of different types Price, Colour, design, Grip etc. The pen market is full of competition where the consumer possesses vast variety of choice to select his Brand which depends on his buying Behaviour. Of course it is very difficult to describe consumer buying Behaviour about pen; even though the authors have tried to find how the consumer purchases a particular Brand of writing pen, how much he searches for his Brand, what factors influences him to buy his preferred Brand?

The technique of data collection is through structured questionnaire. Three methods (i.e.) graphical method, percentage & average method are used as tools /techniques of analysis. Statistical tools used for analyzing the data are Chi – Square & ANOVA Analysis.

Keywords: Consumer, Buying Behaviour, Sales Promotion, Pens, Advertisement

1.0 INDUSTRY OVERVIEW

There has been a need to document through the use of writing instruments since the dawn of making, Pens and Pencils continue to be the staples of everyday life and indispensable items for everyday use. Writing Instruments continue to play integral part in the life of every Business, School, and household. The advent of computers and related technologies has yet to make writing industry and Instruments Slow Paced and Obsolete. The consumer decision-making process is important in determining purchase behaviour (Rowley, 1997). Pre-purchase satisfaction can be distinguished from anticipated satisfaction and that it helps to predict first-time purchases (Siminitras et al., 1997).

India's Writing Instruments Industry is reserved for the small sector with a statutory limit on the maximum Investment in Plant and Machinery at Rs 50 Crores. As a result critical pen component like refills are manufactured in house, while all non critical components are outsourced. Most Indian companies cater to the "Value for Money" (i.e. High Volume Low Value Strategy) While International Players cater to Premium segment operating through exclusive Distributors. China controls approximately 10% of the global markets while the Indian share had so far been on a mini scale.

1.1 CHANGING CONSUMER BEHAVIOUR

Purchase of a single Pen used to be a considered decision until not too long ago. Today, most consumers buy multiple pens in a single Purchase. Because the consumer would go out specifically to buy a pen earlier, today most buy along with a number of other things as a part of their monthly provisions. Earlier there was one pen to write, now interestingly even as communication is getting increasing psychological, there are different pens, Ink color, size for different moods, needs and situations.

1.2 GLOBAL WRITING INSTRUMENT INDUSTRY

Globally, writing instrument industry is rising at a healthy rate despite growing computerization. China controls approximately 10% of the global market, due to its manufacturing process. India is becoming most preferred manufacturing destination after China. Indian Product Quality is amongst the best in the world.

1.3 MARKET AND MARKET INFORMATION

- The worldwide Market size for writing industry is Rs 50000 crs (p.a), USA market alone is \$2.2 Billion Dollars (App Rs10000 Crores).
- China's exports of Pens are over Rs 5000 Crores (p.a).
- India's Pens Exports are merely Rs 200 Crores (p.a).
- The Annual Turnover of the Industry in India is now estimated at Rs 1800 Crores (p.a) and is expected to Increase annually by 15-20% (p.a).

2.0 COMPANY OVERVIEW

2.1 ABOUT TODAY'S COMPANY

Today's Writing Products Limited (TWPL), incorporated in April 29, 1992 as Creative Station Products Ltd By promoter Rajesh.K.Drolia, a first Generation Entrepreneur is one of the leading manufactures of pens in India. Company has changed it names from Creative Station to 'Today's writing Products Limited' since October 1995. The company came up with it maiden public issue at par in April 1996, which was oversubscribe two and half times. TWPL has been awarded with "Certificate for Excellence" by the Writing Instrument Manufacturer's Organization of India for the Year 2001-02, & 2002-03. TWPL (R & D) has mastered the art of making the dies and designs of the pen, which gives it a significant advantage over its competitors, both in organized and unorganized sector. The company on an average launches 15 New Products every Year. Company has 2 excellent manufacturing facilities in Dadra, Nagar Haveli, where they manufacture 9.5 lakhs Pen per day in house and outsource 5.5 lakhs pen per day. TWPL has a strong, scalable, multi-layered distribution channel overseen by sales force covering entire country. With a network that reaches out over 4, 40,000 Retail Outlets directly through 1440 Distributors and 57 super distributors. It is at number 2 position in the Market and is considered to be the toughest competitor of Cello (Market Leader).

2.2 BRAND IMAGE

The brand name Today's has achieved a high level of visibility all over the Indian market. Having invested Rs 2000 Lakhs in advertising and approx Rs 2500 Lakhs in Marketing over a 4 year Period, Today's has been associated with latest technology and innovativeness. The company Path breaking campaign was the Zee *Khusboowala* (Perfumed Pen) Launched in 1995-96. Over the years, the Brand has consistently launched new ideas in writing Instruments.

3.0 TYPES OF PRODUCTS

The company solely manufactures the following mentioned products.

- 1 **Ball Pens:** It has a plastic body that consists of several components ranging from Rs2 to Rs10, depending on the complexity of the products and its design.
2. **Gel Pens:** They are similar to Ball pen except, they use ink that is Water Based and in the form of a gel. It is vibrant in colour and is considered smoother to write.
3. **Refills:** Company also manufactures refills which are most technologically intensive part of the Pen. The tip and Ink are carefully balanced with each other to achieve the optimal mix of writing smoothness and ink letdown.

4.0 COMPANIES MARKETING ACTIVITIES

The company reaffirmed its focus on high volume low value category of writing instruments. It has achieved a remarkable success in the industry and is the toughest competitor of the brand leader Cello.

4.1 CORE COMPETENCY

The biggest strength of the company which their competitors are not able to capitalize is its Own R&D, In-house manufacturing of Mould & Dyes this enables the company to launch newer and newer design and varieties faster than its competitors.

4.2 Other Things Contributing to Success Of the Company are as under

- ❖ Extensive Distribution Network, reaching 4, 40,000 Retail outlets.
- ❖ Huge Production Capacities 35 Lakhs Pieces Per day.
- ❖ Large Varieties of Pen (Ball & Gel) in Different Price Range.
- ❖ Stationary Items.
- ❖ Foreign Collaboration & Exportable Product Varieties.

5.0 MARKETING MIX OF TWPL

The Marketing Mix of "TODAYS WRITING PRODUCTS LIMITED" is as mentioned below:

5.1 PRODUCT

TWPL is major manufacturer of following products

1. Ball Pen
2. Gel Pen
3. Refills
4. Office Stationary.

5.2 PRICING DECISION

At TWPL, Pricing Policy is decided by the head office by MD & VP in consultation with Director Sales & Marketing and depending upon market condition, demand, raw material price, competitor's price and products and other factors.

At "**TODAY'S WRITING PRODUCTS LIMITED**" Price of the Pen is Decided taking into Consideration the following Cost.

1. Raw Material Cost.
2. Production/manufacturing Cost.
3. Transportation Cost.
4. Packaging & Labeling.

5.3 PLACE (DISTRIBUTION OF THE COMPANY)

Distribution Channel

Distribution is an important function of any organization. Making the product available at right place and at right time with less cost is the key objective of any distribution management personnel.

5.4 PROMOTION STRATEGIES AND DECISION

ADVERTISEMENT & SALES PROMOTION: Today's mainly uses TV Ad's to promote their sales. Company has been regularly endorsing different celebrity for its brand (Hrthik Roshan, Raima Sen Etc). Target selling is the criteria for the super distributor if they achieve that target specified they are awarded with commission (Not Disclosed). For wholesalers & distributors different Scheme likes Scratch Card, Lucky Draw, and Discount on Bulk Purchase. Different Gifts, Commission etc are used to promote sales. Companies' promotional department has seized this opportunity and is selling large chunk of its production to corporate customers which in turn is used by them as sales promotion tool. The customers of the company are as mentioned under:

Hindustan Lever Limited
Philips India
Warner Lambert.
Fuji Film

6.0 LITERATURE REVIEW

According to **Rowley, (1997)** the consumer decision-making process is important in determining purchase behavior. However, **Simintiras et al., (1997)** said that Pre-purchase satisfaction can be distinguished from anticipated satisfaction and that it helps to predict first-time purchases. Most consumers value convenience as one of the most important decision making criteria, their definitions of convenience vary across consumers **Lee & Marlowe, (2003)**. Consumer compulsive buying is an important area of inquiry in consumer behavior research. In the words of **Shoham & Brencic, (2003)** The importance of studying compulsive buying stems, in part, from its nature as a negative aspect of consumer behavior. Specifically, exploring negative consumption phenomena could provide modified or new perspectives for the study of positive consumption behaviors. Moreover, research on negative facets of consumption is useful because it can potentially contribute to society's well being, an important criterion for usefulness of any research. Consumers are especially placed in situations of repeated purchases. They may reflect their past purchases in their decision. A study by **Steichen & Terrien, (2009)** suggested that the suppliers adapt to the demand by amending their offer price. Building brand loyalty has become more important, yet more difficult to achieve in today's marketplace, individual investors do tend to buy brands from companies in which they hold stock, and investors may buy stock in a company because they have experience with the brand. In contrast with brand loyalty, where consumers will not buy competitive offerings, individual investors indicated they would buy competitive offerings, suggesting that stock ownership is more likely to lead to repeat purchase behavior, but not brand loyalty **Schoenbachler et al., (2004)**. The influence of the retailer is higher in evoked set development than in the final purchase stage of consumer decision making and that the influence of the retailer on product choice varies significantly across different categories of durable products **LeBlaine & Turley, (1994)**. It is necessary to consider the product's promotional state at the moment of purchase as an explanatory element of the process. Promotion is a tool that can help manufacturers and/or retailers in the achievement of their objectives (try the brand, help to decide what brand to buy, etc.). Immediate price reduction is the technique that exerts greatest influence on the brand choice process. It is possible that the consumer perceives a promotion, for example, coupons or rebates, but does not modify his

or her behaviour. In this case, manufacturers and/or retailers will be investing their resources in promotional actions that do not have any effect on the consumer **Alvarez & Casielles, (2005)**. The importance of packaging design as a vehicle for communication and branding is growing in competitive markets for packaged food products, Visual package elements play a major role, representing the product for many consumers, especially in low involvement, and when they are rushed, The challenge for researchers is to integrate packaging into an effective purchasing decision model, by understanding packaging elements as important marketing communications tools **Silayoi & Speece, (2004)**. Designer labels are not the turn-on like they were a few years ago. Despite significant means, many shoppers are passing up Lord & Taylor for Wal-Mart. An especially valuable resource for these and other changes in consumer behavior that are altering the rules for successful marketplace engagement is the annals of adult development psychology.

7.0 OBJECTIVES OF THE STUDY

7.1 RESEARCH OBJECTIVE

"Identifying Consumer Buying Behaviour of Pens"

The main objective behind the project is to identify consumer buying behaviour regarding the Pen, which will ultimately help the company management to study the analysis and understand the behavior that will enable the company's marketer's to effectively sell the product.

7.1.1 SUB OBJECTIVES

1. To identify the influence of different characteristics/features of Pen on consumers in different segments (i.e.) Student, Business Person, Service Person.
2. To find out why consumer prefer particular brand of pen? What are the factors that influence and motivate him to buy the preferred brand of the pen?
3. To find the most preferable brand.
4. To study the impact advertisement has on the minds of the consumers in different age group, income group & by profession.
5. To help the company's marketing managers to design an effective marketing mix for it target Customers.

7.2 RESEARCH METHODOLOGY

7.2.1 METHODS OF DATA COLLECTION:

Primary Data: A suitable combination of **Questionnaire techniques**, & discussion with the respondents was used to collect the required primary data.

7.2.2 TOOLS AND TECHNIQUES OF DATA COLLECTION:

Questionnaire method: - Primary data is collected by surveying the respondent personally. The method chosen was *Close & Open Ended Question*.

7.3 RESEARCH DESIGN

- 1) **Research design:** - Descriptive study.
- 2) **Time Dimension: Cross Sectional** (As the Study is done only once in the pre specified period of 8 weeks, longitudinal study was not possible).
- 3) **Method of Data Collection:** Personal Interview.
- 4) **Research Instrument:** Questionnaire.
- 5) **Research Environment:** Field Study.
- 6) **Sampling Area:** Panipat, Sonapat, Samalkha and Karnal.
- 7) **Sampled Population:** Business Person, Service Person, Student, Housewife's Etc.
- 8) **Sample Size:** 100 Consumers.
- 9) **Sampling Technique:** Convenience Sampling.

ANALYSIS

Q1) Which brand of Ball Pen do you prefer to Write?

Brand	Today's	Parker	Cello's	Montex	Add Gel	Reynolds	Other's
Responses	11	19	41	3	9	8	9

Tab 1.1: Most Preferred Brand

Findings: From the above table it has been analyzed that majority of the consumers (i.e.) 41 of them prefer Cello as a brand to be used. Which is followed by Parker & Today’s by 19 & 11 responses whereas others gets 9 which includes mainly unbranded products such as Bunty & Babbli (Rs 2), Dhoom, Paras.etc which are *use and throw* type pens.

Brand	Today’s	Parker	Cello’s	Montex	Add gel	Reynolds	Other’s
Business Person	4	6	12	1	1	4	2
Service Person	3	4	15	1	4	1	2
Student	2	7	10	1	3	2	5
Others	2	2	4	--	1	1	-

Tab 1.2: Occupational Classification

Thus analyzing above table it clearly signifies that cello is not only preferred by majority of the consumers but it is preferred highly by all the consumers in different demographic segments.

Q2). Which type of Pen do you currently use?

Ball Pen	Gel Pen	Ink Pen	Pilot Pen
72	22	2	4

Tab 2.1: Make of Pens

From the above table it is visualized that majority of the consumer prefers and uses Ball Pen. Almost 75% of the respondent says that they use Ball Pen. And the next best usage is of Gel Pen by 22%, Ink & Pilot Pen are least preferred by the consumers in the modern or present market condition.

Types	Ball Pen	Gel Pen	Ink Pen	Pilot Pen
Business Person	26	4	--	--
Service Person	19	9	1	1
Student	19	7	1	3
Others	8	2	--	--

Tab 2.2: Occupational Classification

It is identified that only two categories/type of pen are preferred by the consumers which accounts to nearly 94% of responses. Consumer prefers less of Ink pen. Thus Company should concentrate more on Ball & Gel Pen segments rather than Pilot or Ink Pens.

Q3) Which Colour Of Pen Do You Normally Use?

Blue	Red	Black	Multiple
75	6	15	4

Tab 3.1: Colour Preference

Blue is the most preferred colour for consumers and majority of the consumer’s uses blue colour as in colleges, schools, institutions, corporates and at many other place blue is commonly accepted colour for writing. Where as **Red & Black** are mainly used by the **Professors or Doctors or Lawyers**.

Q4.) Which Ball Pen Point Do You Normally Use?

0.5	0.45	0.6	0.8
40	6	40	14

Tab 4.1: Tip of Ball Pen

Occupation Group	Point of Pen			
	0.5	0.45	0.6	0.8
Business Person	13	2	10	5
Service Person	14	1	10	5
Student	13	2	11	4
Others	--	1	9	--

Tab 4.2: Occupational Classification

Point ranging 0.5 & 0.6 are more demanded and used in the market by almost 80% of the respondents. 0.45 & 0.8 are least preferred as 0.45 results into very thin writing where as 0.8 results into bold writings according to consumers.

Q5). Which Characteristics of Pen Influence Your Buying Decision?

Features	Point	Grip	Price	Long-Life	Ink	Performance
Response	15	11	26	6	7	35

Tab 5.1: Characters influencing Buying Decision

From the above table it has been analyzed that the most influencing characteristic is Performance by 36 responses, which is followed by the price with 25 responses. Grip and Ink are least influencing features of the pen impacting consumer buying decision.

Occupation Group	Characteristics of Pen					
	Point	Grip	Price	Long Life	Ink	Performance
Business Person	5	3	9	3	2	8
Service Person	4	3	10	1	2	10
Student	5	5	5	0	3	12
Others	1	0	2	2	0	5

Tab 5.2: Occupational Classification

HYPOTHESIS TESTING

(A) PRICE

Ho: *The null hypothesis is that, "Price does not have influence on buying decision of Business Person"*

Income Group	O	E	(O - E) ²	(O - E) ² /E
>5000	01	7.5	42.25	5.633
5001 - 10000	10	7.5	6.25	0.8333
10001 - 20000	14	7.5	42.25	5.633
20001 & Above	05	7.5	6.25	0.8333
	30		Calculated value	12.93

Tab 5.3: Using Chi Square Test

Table Value of X^2 for 3 (dof) at 5% significance level is 7.85.

Calculated value of X^2 is greater than tabulated value so null hypothesis is rejected.

As null hypothesis is rejected so alternate hypothesis hold true, that it can be concluded that business person buying decision is influenced by the price of the Pen.

(B) POINT

Ho: *The null hypothesis is that, "Students buying decision are not influenced by the Point of the Pen"*

Age Group	O	E	(O - E) ²	(O - E) ² /E
>10	2	0.75	1.5625	2.0833
10 - 15	1	0.75	0.0625	0.8333
15 - 20	0	0.75	0.4218	0.5624
20 - 25	0	0.75	0.4218	0.5624
25 & Above	--	--	--	--
			Calculated Value	3.2914

Tab 5.4: Using Chi Square Test

Table Value of X^2 for 3 (dof) at 5% significance level is 7.85.

Calculated value of X^2 is less than table value so null hypothesis is accepted.

So alternate hypothesis holds true that, point of the pen does not influence the buying decision of students.

(C) **PERFORMANCE** (Combination of more than 1 variable)

Ho: The null hypothesis is that, *“Performance of the pen does not influence the buying decision of Pen for Service Person”*

Income Group	O	E	(O – E) ²	(O – E) ² /E
>5000	3	2.5	0.25	0.1
5001 – 10000	2	2.5	0.25	0.1
10001 - 20000	3	2.5	0.25	0.1
20001 & Above	2	2.5	0.25	0.1
			Calculated Value	0.4

Tab 5.5: Using Chi Square Test

Table Value of χ^2 for 3 (dof) at 5% significance level is 7.85.

Calculated value of χ^2 is less than table value so null hypothesis is Accepted.

So, alternate hypothesis holds true that, performance of the pen is the most influencing characteristic impacting the buying decision of service person.

Q6) **Do you refill Your Pen Regularly?**

Factors	Respondents	
	Yes	No
Pen Cost is Negligible than Refill.	9	40
Replacement Results in Poor Performance	11	21
Refill is unavailable	2	9
Others	3	5
Total	25	75

Tab 6: Frequency of refilling the pen

From the above table it has been analyzed that majority of the respondents (i.e.) 75% out of 100 do not refill their pens. The reasons for not refilling is that the Pen Cost is negligible as compared to a new refill so consumers prefer to buy a new pen rather than refill, even the refill of 2nd time does not give the original performance in writing, thus this two reason accounts for more than 60 consumers not refilling their pen. But some say that its better to go for New Pen rather than refill, some are using the Rs 2 unbranded Pen which are use and throw.

Q7). **Which Advertising Media Influence You the Most?**

TV Advertisements	Banners & hoarding	Newspapers & Magazines	Internet
45	19	27	9

Tab 7.1: Advertising Media

From the table it can be concluded that TV Ads are the most influencing media impacting the buying decision of different consumer segments having almost 45% of the responses. The next most influencing media is Newspaper impacting the buying decision. Internet is the least influencing among all media.

HYPOTHESIS TEST

Null Hypothesis: - Ho: *The null hypothesis is that, “Influence of Advertising Media does not differ By Profession”*

Occupation Groups	Type Of Media				Total
	TV	Banner & Hoarding	Newspapers	Internet	
Business Person	10	4	12	4	30
Service Person	18	5	4	3	30
Student	14	9	5	2	30
Others	03	1	6	0	10
Total	45	19	27	9	100

Tab 7.2: Occupational Analysis

Occupation Groups	Type Of Media				
	TV	Banner & Hoarding	Newspapers	Internet	Total
Business Person	3	- 3	5	-3	2
Service Person	11	-2	-3	-4	2
Student	7	2	- 2	- 5	2
Others	- 4	- 6	- 2	-7	- 18
Total	17	-9	-1	- 7	- 12

Tab 7.3: Applying ANOVA Test: Subtracting 7 from each variable

$$\text{Correction Factor} = \frac{T^2}{N}$$

$$= \frac{(-12)^2}{16} = 9$$

Sum of Squares between Columns = 174

Degree Of Freedom = v = (4 - 1) = 3

Sum of Squares between Rows = 75

Degree Of Freedom = v = (4 - 1) = 3

Total Sum of Squares = 377

Degree Of Freedom = (16 - 1) = 15

Source of Variation	Sum of Squares	Dof	Mean Square
Between Columns (Advertisements)	174	3	58
Between Rows (Profession)	75	3	25
Residual	377	15	25.133
Total			

Tab 7.4: ANOVA TABLE

❖ Comparison of **Advertisement variance** estimate with residual variance estimate.

$$F = \frac{\text{Greater Variance}}{\text{Smaller Variance}}$$

$$= \frac{58}{25.133}$$

$$= 2.30$$

Table Calculation: - The table value of F for 3 and 15 DoF at 5% level of significance is 3.2874.

❖ Comparison of **Profession variance** estimate with residual variance estimate

$$F = \frac{\text{Greater Variance}}{\text{Smaller Variance}}$$

$$= \frac{25.133}{25}$$

$$= 1.00532$$

Table Calculation: - The table value of F for 3 and 15 DoF at 5% level of significance is 3.2874.

For both comparisons calculated value is less than tabulated value, so null hypothesis is rejected. Thus it signifies that advertisement media influences the buying decision but it does not differ by occupational group or profession.

Q8.) Which Price Range Does your Pen belong to?

1 - 5	6 - 10	11 - 20	21 - 30	31 - 50	50-above
17	24	40	7	7	5

Tab 8.1: Purchasing Based on Price

Occupation Groups	Price Range					
	1 - 5	6 - 10	11 - 20	21 - 30	31 - 50	50-above
Business Person	1	9	17	1	2	--
Service Person	4	7	11	4	3	1
Student	9	8	5	2	3	3
Others	1	--	2	2	2	1

Tab 8.2: Occupational Analysis

It can be analyzed from the above table that out of the total responses, consumer mostly favors and prefer their pen (Either Ball or Gel) in the price range of Rs 11 – 20. Where as the next preferred price range is Rs 6 -10 according to 24 respondents. The high price range ranging from Rs 21 – 50 & above that is least prefer by the consumers.

Business Person are ready to Pay up to Rs 6 -10 for their prefer type and brand of pen, where as service person also uses pen in the same range but in students category they are not willing to spend more and are using Pen mainly in the Price range of Rs 1 – 9 .

Q 9). Which Type of Scheme affects your buying Decision?

Extra Refill	Discount On Bulk	Free Pen	Others
17	44	28	11

Tab 9: Schemes affecting buying decisions

It can be seen from the above table that different promotional activities undertaken by the companies is definitely impacting the buying decision of consumers. However the most influencing promotional schemes that affect the decision are Discount on Purchase of Pens (In Bulk more than 1 or 2). The next most influencing scheme is of free Pen given by the companies on purchase of 1 pen impacts the decision. For some 10% of the respondents believe that no scheme impacts their buying decision as pen is low price product where consumer involvement is less.

Q10) According To You Which Pen Brand Enjoys Market Leadership Position?

Today's	Parkers	Cello	Montex	Add Gel	Reynolds	Others
5	15	59	6	6	9	--

Tab 10: Market Leadership

From the above table it is clear that cello enjoys market leadership position as almost 60% of responses have revealed that they recognized cello as the leader among all the companies. At 2nd position it is Parkers. Reynolds is at 3rd position but for Today's it shows that it is recognized Market Leader by least number of responses in spite the toughest competitor of Cello in organized Sector as compared to any other players.

Cello is in No 1 Position, followed by Parker & Reynolds respectively. But the gap between today's and cello is huge thus company need to identify the reason and try to remove the weakness in that and strive to be the best in the industry's other players are not in the same segment as Cello, but today's is serving almost all the same consumer and market segments that cello also does and also has huge varieties of Pen.

Q11). Which Type of Writing Do you prefer?

Bold	Crispy	Fluent	Emphatic
24	28	35	13

Tab 11: Preferability

From the above table it could be analyzed that fluency in writing is desired and liked by majority of the respondents. Fluency and Crispness' in writing accounts for more than 60% of responses liking it. Fluent and Crisp writing can be obtained by using Point ranging from **0.5 , 0.6 & 0.45** which majority of the consumers are using the present market condition. Large chunk of consumers prefer bold handwriting but emphatic are least desired by the consumer. As most of them like **Fluent & Crispy** writing the demand for the Pen in the Pont size of **0.5, 0.45, & 0.6** would be highest and 0.8 & 1mm pen would be less demanded. Thus companies should concentrate on producing pen in the same Nib Size.

Q12). Rank The Following Types Of Pen ranging from (1 to 4)?

Types	1 st	2 nd	3 rd	4 th
Ball Pen	58	18	18	6
Gel Pen	19	44	26	11
Ink Pen	16	27	29	28
Pilot Pen	7	11	27	55

Tab 12: Rankings

The response clearly shows that Ball Pen is the most use and No 1 type of pen in the market due to several reasons according to consumers. Out of the 100 responses Ball Pen is termed No 1 by almost 60 % of responses, where as after Ball Pen the most preferred and at No 2 ranked is Gel Pen 44 % responses out of 100, at no 3rd rank is Ink Pen and ranked 4th by maximum number of responses is the Pilot Pen.

Interpretation: - Ball & Gel Pen are mostly used and ranked as top 2 among all the category of Pen thus companies should concentrate more on that two pen segments rather than Roller, Ink or Pilot Pens.

8.0 CONCLUSION

- ◆ Cello as a Brand enjoys market leadership position and it is also preferred by the majority of the consumer for writing among different brands of Pens available in the market.
- ◆ In different types of Pens, Ballpen is preferred by most of consumer's and they have ranked Ball-Pen as No 1 among different Types of pen.
- ◆ Blue Colour is preferred by the consumer among different Colour's.
- ◆ Majority of the Consumer prefer Ball Point of 0.5 & 0.6 mm and they like Crispy and Fluent hand writing as this point size gives the desired writing to consumers.
 - **For Business Person:** The most influencing characteristic impacting buying decision is Price.
 - **For Service Person:** Price & Performance have considerable influence on buying decision. It signifies that Service Person purchase pen not only considering price but along with it some different features such as Grip, Longevity, etc are also impacting the Decision.
 - **For Students:** - Student wants everything in the Pen Affordable Price, proper Grip, Long Life and even the performance of the pen. Thus student buying decision regarding pen is influenced equally by almost all variables

9.0 RECOMMENDATIONS

The Suggestions given are based on the consumer survey and its analysis and studying the Companies Own Marketing Mix at TWPL are as per authors knowledge regarding the concerned subject.

- ✓ Today's should Come up with the product in Effective Price range Of Rs **5 – 20**, with Point Size of **0.5 & 0.6**, targeted to different consumer segments.
- ✓ Company should not have a common Positioning for all Target Markets. The companies should try to focus on a **target group** by focusing on various characteristics that affect their buying decision.

9.1 GENERAL SUGGESTION

- ✓ Today's with its own R & D facilities can outperform unorganized players by producing the Pen In the price range of Rs 1 -3.
- ✓ Company should Increase the Product Varieties substantially in Ball Pen Segment as it as about 82% of the total Market.

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AN EMPIRICAL STUDY ON WORKING FROM HOME: A POPULAR E-BUSINESS MODEL

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ABSTRACT

Development in information communication and internet technologies shifts the conventional higher education and training system completely into online e-education through global universities. Students get freedom to work and simultaneously study by enrolling online in these global universities. When online education model is considered as next wave in higher education system, we propose an idea of online office model as a new system to support online education model. This paper contains the concept of "Working from Home" a online office back-up system in organizations and its advantages to customers, employees and service providers. Moreover, such model decreases the expenditure for travelling, to have better homely food etc. for the employees and the service provider can decrease expenditure for office space and maintenance. This online office management system serves as back office system present college based education system. This online office functions like conventional office system where it does all functions related to marketing, admission, enrollment, managing online study material download, online attendance, online assignment evaluation management, handling student and faculty queries, supporting examination based evaluation and finally monitoring degree/diploma certificate generation. All these online office functions can be managed and controlled by a team of online office managers working from their homes so that the physical existence of the online global education providers/universities can be totally eliminated. Working from Home system should have characteristics to fulfill its objectives to provide all the required services and to solve all problems of the stakeholders. The characteristics of "Working from Home" e-business model is analyzed using 'ABCD Analysis Technique'. Based on various factors which decides the Working from Home system, a model of various factors affecting under organizational objectives, employers point of view, employees point of view, customers/students point of view, environmental/societal point of view and system requirements are derived by a qualitative data collection instrument namely focus group method. Working from home concept is being analyzed using a new Business Analysis Frame work namely ABCD Technique.

Keywords: Working from home model, online office management, ABCD Analysis.

1. INTRODUCTION

Working from home is defined as people working from their home or from other location of their choice other than the working area by payment which is provided by the employer. Working from home is having lots of use in recent years. Since the growth of the networking from home indicates the employee can finish their work with in their own premises. Work will be done remotely. It depends on teleworking / telecommunicating arrangements where an employee does not require staying during the business hours with their employer. In today's growing world there is an urgent need for working at home. To improve the employee retention during the busy and stress filled life we require some leisure time. Through working from home you can have free access towards a specific job through fewer interruptions from fellow employees in the office and communication time is also wider. [Baruch Y ,2001], [Bussing A,1998]

With increasing numbers of employees working at home using home as a working destination it is clear that improved employee retention, e.g. home working can help retain working parents with childcare responsibilities. [Thatcher SMB & Zhu X, 2006] It leads to increased staff motivation with less stress also. It also saves a huge expenditure towards installing a separate work office area and other facilities. A person involves in working from home can do his office work as well as home required assignments simultaneously. Allowing employees to work from home in order to encourage a better work/life balance can lead to improvements in health and well-being.

The system of working from home has some salient characteristics to fulfill its objectives and to provide all the required services, thereby solving all problems of the stake holders. "Working from Home" system should have characteristics to fulfill its objectives to provide all the required services and to solve all problems of the stake holders. The characteristics of "Working from Home" e-business model is analyzed using 'ABCD Analysis Technique'. Based on various factors which decides the Working from Home system, a model of various factors affecting under organizational objectives, employers point of view, employees point of view, customers/students point of view, environmental/societal point of view and system requirements are derived by

a qualitative data collection instrument namely focus group method. Working from home concept is being analyzed using a new Business Analysis Frame work namely ABCD Technique.

2. WORKING FROM HOME MODEL

2.1 Modeling Working-From-Home Decisions

The number of employees working from home has tripled [Mateyka, et al, 2012] Working from home has significant benefits for both the employer and the employee. According to the recent studies conducted even if the location of the study is different the results achieved in terms of the output compared to the study at office hours is rather similar. There were no changes in productivity from the working group, but those who worked from home were 13 per cent more productive. The records kept by a survey agency showed much increase in productivity earned by the employees at home and they worked more hours than that of the work done in an office. The survey revealed that the home workers also reported substantially higher work satisfaction and less work exhaustion. [Nicholas Bloom, 2013], [Cascio W F,2000][Debra et al,2005]

To anchor our thinking before examining the data we map out a simple model of the impact of working from home on: (i) firm profits, (ii) employees hours, and (iii) selection effects. Firm Profits: We model the impact on profits of WFH as primarily driven by four effects: A) Hours: The number of hours worked from the official shift (as opposed to taken on breaks) B) Call rate: The number of (quality adjusted) calls completed per hour C) Attrition: The impact on quit rates (which drive hiring and training costs) D) Capital: The impact on capital inputs, through office space and equipment requirements.

More and more people are getting to work without going to work. Instead of commuting to a corporate workspace, they're staying at home in their own space. Instead of separating their work lives from their home lives, they're blending them, or trying to. Instead of thinking of work as a place where they go, they're seeing it as something they do. While many relish the chance to strike a better work-life balance by working from home, some are surprisingly resistant to being stationed outside the office. [Harpaz, 2002]

2.2 Methods of Working from Home

The person who wish to work from home are individuals and who need additional income or a parent who wishes to earn income and stay home with kids, this is the solution for them. There are various kinds of work, which can make at home.

(1) Call centers: Selling the Time and Voice

If you have a great telephone voice, an ability to organize information quickly and a quiet place in your home to work, you could make money working for a call centre, call centre means don't have someone to answer their phones 24 hours a day. The calls are routed to a call centre. and then sent out to individuals who work from their home. These workers are equipped with computer and software are they are able to work customer's questions. [Oettinger, Gerald 2011]

(2) Selling home made products

If people are having ideas of creating beautiful things at home, this is helps them to supply the products while sitting at home. Home made products are shown no signs of stopping. E.g. Gifts, Clothes, Vegetables (farmers) etc.

(3) Consultancy

Consultants offer their services or advice for a fee. Consultants are individuals, some people use consultants for tax or financial advice, while others may pay a consultant to teach them how to set up and maintain the works. Basically if consultant is proven their skills in an area, they can market theirself as a consultant and provide services from home. [Herman Miller,2008]

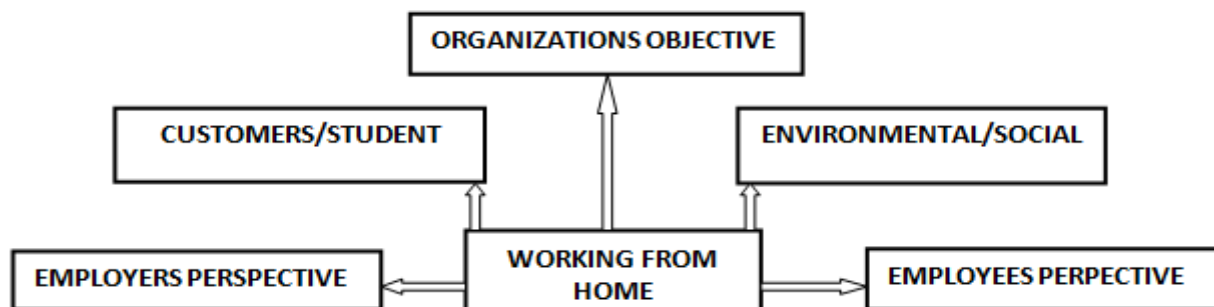


Fig. 1 : Block diagram of issues affecting 'Working from Home' model.

3. ABCD ANALYSIS OF WORKING FROM HOME MODEL

Advantages, Benefits, Constraints and Disadvantages (ABCD) of a business model can be used to analyze and understand the model in an effective way. As per this analysis technique [P S Aithal et al 2015], the effectiveness of a business model can be studied by identifying and analysing the advantages, benefits, constraints, and disadvantages by considering various issues like organizational objectives employers and employees perspective, customer/student perspective and environmental social prospective as in the block diagram of issues affecting working from home model shown in figure 1.

The various factors contributing under the four identified constructs like advantages, benefits, constraints, and disadvantages are derived by a qualitative data collection instrument namely focus group method [EM Rogers and S D Hunt ,1994],[R M Morgan and S D Hunt 1994] and the constituent critical elements supporting these factors are identified. Factors affecting working from home Model are (1) Factors related to organizational objectives, (2) Factors related to Employers perspective, (3) Factors related to Employees Perspective, (4) Factors related to Customers / Students service, and (5) Environmental / Social factors. Allowing staff to work at home on either a full or part-time basis can bring a range of business benefits - from increased productivity and greater staff motivation to more effective use of their premises. Home working also widens the base from which one can recruit, boosting their chances of recruiting successfully. The spread of home working is opening up a new range of possibilities for the way businesses can work and structure themselves.

As per ABCD technique we have to identify and analyse various factors and constituent critical elements under (a), (b), (c), (d), (e).

Advantages: (a) Advantages from Organizations point of view, (b) Employees Point of View, (c) Customers/Students point of view, (d) Society point of view, (e) Operational issues.

Benefits: (a) Benefits from Organizations point of view, (b) Employees Point of view, (c) Customers/Students point of view, (d) Society point of view (e) Operational issues.

Constraints: (a) Constraints from Organizations point of view, (b) Employees Point of view, (c) Customers/Students point of view, (d) Society point of view, (e) Operational issues.

Disadvantages: (a) Disadvantages from Organizations point of view, (b) Employees Point of view, (c) Customers/Students point of view, (d) Society point of view(e) Operational issues.

3.1 Organizational Issues

Freeing Work from the constraints of location and time by means of Information technology supports new patterns of work, with greater flexibility in location and time. Working in a particular location - the office - over a particular period of time - the office day - is a key feature of the way industrial work has been organized for over two centuries. This mode of working has many obvious advantages: for individuals: 'it structures their time 'it gives them social contact, 'it gives them a sense of achievement, of worth of identity. For the organization, 'it permits control and coordination of work 'it makes employees visible - hence they can be guided, evaluated, and developed 'it mandates the interaction necessary to secure consensus on organizational goals It represents a traditional, stable structure, to which the work can be accustomed. Most generally, because there is a feeling that the way they traditionally have managed. Although it can bring great benefits, working with other organisations is more complex than working alone. The success rests on a combination of formal and informal ways of achieving good working relationships on both an organisational and an individual level.

It is essential to discuss how they will work together, defining roles, responsibilities and contractual or other legal obligations, and to get this in writing in a joint working agreement. People working in collaboration also cite the importance of values, such as trust, in their relationships. However, even where they have a pre-existing relationship and trust on which to build, preparation, planning and a written agreement can help them avoid misunderstandings. It is important that staff and volunteers understand why their organisation is working collaboratively and have an insight to partners' aims and values. Time spent developing an understanding of partners' culture can help people from different organisations to work together.

3.2 Technological issues

Technology is being used in almost every company to accomplish specific tasks. Technology has changed the way people work and it has brought some fun at work, it reduces on human errors which can be caused by too much work or stress. Business technologies like computers, tablets, social networks, virtual meeting software, accounting software, customer management applications, and so much more have removed workplace boundaries and they have also facilitated in the movement of information at workplace which accelerates quick decision making at any workplace.

3.3 Environmental issues

Depending on the processes they support, wireless solutions may have to handle sub-optimal conditions such as poor lighting, rough conditions, extreme temperatures and high rates of device theft and loss. Security is an acute concern for many wireless applications. Wireless data, traveling over open airwaves, is easily intercepted. Environment conditions are addressable through a full understanding of who will use the application and how and where it will be used. Security can be enhanced using a combination of techniques, from cryptography to authentication servers, to virtual private networks. Adverse work conditions can be addressed through proper device and accessory selection, such as using ear pieces for noisy locations and backlit displays for dim lighting conditions. The advantages and the benefits are overriding the constraints and disadvantages of various environmental and social issues in case of working from home.

3.4 Employer / employee issues

Businesses perform best when there are strong working relationships between employers, employees and the business owners (e.g. shareholders). Decisions made as a result of a workforce plan inevitably both sides of the relationship – for example: A decision to make redundancies and reduce staff costs might be viewed positively by the shareholders, but negatively by the employees and trade unions. A plan to offer more flexible working options would be welcomed by employees, but might place additional pressure on the workloads of line managers. The solution to these potential conflicts and issues is usually found through communication and consultation. Ultimately, decisions need to be taken in the best interests of the business – but it is important to at least attempt to gain the support of other stakeholders.

3.5 Customer’s issues

At some point, everyone in business has to deal with an upset customer. The challenge is to handle the situation in a way that leaves the customer thinking you operate a great company. If you’re lucky, you can even encourage him or her to serve as a passionate advocate for your brand. When it comes down to it, many customers don't even bother to complain. They simply leave and buy from your competitors. Research suggests that up to 80 percent of customers who leave were, in fact, "satisfied" with the original company. Obviously, customer satisfaction is not enough. Businesses nowadays need to positively delight customers if they want to earn their loyalty. It may seem counter-intuitive, but a business owner’s ability to effectively deal with customer complaints provides a great opportunity to turn dissatisfied customers into active promoters of the business.

4. CONSTITUENT CRITICAL ELEMENTS AS PER ABCD MODEL

As per ABCD framework for Working from Home model analysis, the factors affecting under organizational, operational, technological, employer / employee, customers and social environmental issues are identified. The constituent critical elements of these factors are listed under the four constructs - advantages, benefits, constraints and disadvantages of the ABCD technique and tabulated in tables 1 to 4.

Table 1: Advantages of Working from home model

Sl.No.	Issue	Factors affecting	Constituent elements
1.	Organisational Issues	1. Less Investment 2. Diverse People or Workforce 3. New pattern to work 4. Organisational worth	1. High return 2. Specialized Individuals 3. Readiness to Change 4. Revenue generation
2.	Operational Issues	1. Man power Utilisation 2. Cost effective 3. Less Time consuming 4. Flexible	1. Optimum utilization of resources 2. Less cost-higher return 3. Travel time reduced 4. Flexi time
3.	Technological Issues	1. High level of technology 2. High dependency on technology 3. Expand 4. Talent	1. Preparedness of Employees 2. Quick & Instant 3. Employee empowerment
4.	Employers and employees Issues	1. Reduces staff cost 2. saving of office space 3. Balancing life & work 4. Flexible working option	1. Control mechanism 2. Increases earning 3. More productive 4. Manpower supply more

5.	Customers Issues	1. Work from anywhere 2. Faster service 3. Any time availability 4. Price	1. Enhance life 2. Competition 3. Networking 4. Affordable
6.	Social / Environmental Issues	1. Employment generation 2. Flexible working conditions 3. Stake holders satisfaction 4. Eco friendly	1. Creating opportunities 2. Clean environment 3. Employee Relationship 4. Hazards minimized

Table 2 : Benefits of Working from home model

Sl. No.	Issue	Factors affecting	Constituent elements
1.	Organisational Issues	1. Financial stability 2. More productivity 3. Attracts & Retain staff 4. Employer brand	1. Less investment in terms of office space. 2. Working at your risk 3. More supply of manpower 4. Royal Employees
2.	Operational Issues	1. Improved quality 2. Operational efficiency 3. Networking 4. Speed	1. Quality of work 2. Increases 3. Maintenance cost is less 4. Quick result
3.	Technological Issues	1. Availability 2. Technical superior 3. Improves communication 4. Ability to handle	1. Cheap & affordable 2. Latest technology 3. Formal Vs. Informal 4. Easy & safer
4.	Employers and employees Issues	1. Saves Employer Investment 2. Reduces unscheduled absence 3. Organisational structure 4. Mutuality	1. Equitable load 2. Better performance 3. Virtual 4. Interaction/ Networking
5.	Customers Issues	1. Freedom of choice 2. Matching expectation 3. Fitting to the budget	1. 24x7 service 2. Customer Vs Employees 3. Paying capacity of customers
6.	Social / Environmental Issues	1. Reduces traffic jam 2. Harmony with nature 3. Less stress 4. Improved economy	1. Pollution 2. Green habitat 3. Adaptation 4. Better living Condition

Table 3 : Constraints of Working from home model

Sl. No.	Issue	Factors affecting	Constituent elements
1.	Organisational Issues	1. Virtual organizational structure 2. Type of Business strategy 3. Leadership style	1. Role conflict 2. Not suited for manufacturing sector 3. Growth strategy 4. Democratic
2.	Operational Issues	1. Scale of production 2. Labour force 3. Suppliers 4. Finance	1. Machinery 2. Skilled 3. Just in time 4. Healthy cash flow
3.	Technological Issues	1. Full automation 2. Implementation expenses 3. Security breaches 4. Intensive training	1. Costly 2. Cost of hardware & software 3. Access to confidential data 4. Skilled labour force

4.	Employers and employees Issues	1. Makes employers lazy 2. Communication 3. Difficult to maintain skilled staff	1. Difficult to manage home & office 2. Causes distraction 3. Training 4. Motivating benefits
5.	Customers Issues	1. Reward system 2. Physical non availability 3. Customer tech savvy 4. Complicated products 5. Miscommunication	1. Employees not in work place 2. Customer training 3. Educated customer 4. Communication medium
6.	Social / Environmental Issues	1. Social media 2. Too much information 3. Occupational hazards	1. Bad reasons 2. Choice of Good Vs. Bad 3. Computers/ Phone/Laptop 4. New Diseases

Table 4 : Disadvantages of Working from home model

Sl. No.	Issue	Factors affecting	Constituent elements
1.	Organisational Issues	1. Virtual 2. Assignment 3. Disassociation 4. Organisational type 5. Organisation strategy	1. Reporting authority 2. Weak culture Sector 3. Long/Short term
2.	Operational Issues	1. Planning 2. Co-ordination becomes difficult 3. Operational control	1. Difficult 2. Tangible to intangible 3. Budget control
3.	Technological Issues	1. Disconnectedness 2. Distractions 3. Expensive 4. Crimes	1. People from people 2. Games/ Shopping etc. 3. Purchasing cost 4. Frauds
4.	Employers and employees Issues	1. Labour unions 2. Discouragement 3. Brand building 4. Absence of knowledge	1. Membership 2. More personal 3. Difficult 4. Continuous improvement of workers
5.	Customers Issues	1. Availability of Employer 2. Fun environment 3. Organisational social entity	1. Race to office 2. Lost 3. Lost
6.	Social / Environmental Issues	1. Generating e-waste 2. Face to face interaction 3. Fewer employment opportunities	1. Computers/ Mobiles 2. Lost 3. Less workforce

5. CONCLUSION

Based on ABCD analysis for the business model “working from home” various factors affecting the issues of the model along with their constituent critical elements are identified and analyst. It is found that the factors supporting advantages and benefits are more effective compare to constraints and disadvantages of this model, so that working from home model may become more popular from the prospective of employers and employees in the organization in the future.

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E-CONTRACTS AND ITS LEGALITY FOR RE-ENGINEERING OF BUSINESS PROCESSES: A SOCIO- LEGAL STUDY

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INTRODUCTION

Today with the recent advancement in the areas of computer technology, telecommunications technology, software and information technology have resulted in changing the standard of living of people in an unimaginable way. The communication is no more restricted due to the constraints of geography and time. Information is transmitted and received widely and more rapidly than ever before. And this is where the electronic commerce offers the flexibility to business environment in terms of place, time, space, distance and payment. This e-commerce is associated with the buying and selling of information, products and services via computer networks. It is a means of transacting business electronically, usually, over the Internet. It is the tool that leads to 'enterprise integration'. With the growth of e-commerce, there is a rapid advancement in the use of e-contracts. But deployment of electronic contracts poses a lot of challenges at three levels, namely conceptual, logical and implementation. In this seminar paper the Investigator discussed the scope, nature and legality and various other issues related to e-contracts.¹

This study aims to highlight and review the impact and challenges of E-contracts on commerce and consumer activities through a study of the various legislative provisions i.e. The Information Technology Act, 2000, Indian Contract Act, 1872, Indian Evidence Act, 1872, Consumer Protection Act, 1986 and judicial activism in India.

METHODOLOGY

This paper uses a theoretical study to understand impact and challenges of E-contracts on legal measures and the social, economic and commercial activities.

The Methodology adopted by the Investigators for the preparation of this paper on the subject –“**E-Contracts and its Legality for Re-engineering of Business Processes: A Socio- Legal Study**” is Doctrinal or Traditional or Non-Empirical Legal Research. The research is based mainly on the theoretical analysis of the topic and uses only the Secondary sources such as Books, Magazines, News papers, Reports and Publications of various Associations, Research Scholars, Universities and the Central and State Governments.

I. DEFINITION OF E-CONTRACT

According to **Sir William Anson**:² A contract is a legally binding agreement between two or more persons by which rights are acquired by one or more acts or forbearance on the part of the other or others. E-contract is any kind of contract formed in the course of e-commerce by the interaction of two or more individuals using electronic means, such as e-mail, the interaction of an individual with an electronic agent, such as a computer program, or the interaction of at least two electronic agents that are programmed to recognize the existence of a contract. Traditional contract Principles³ and remedies⁴ also apply to e-contracts. This is also known as

² <https://html2-f.scribdassets.com/8olcnxj2yo3tctbg/images/7-676e14a9f0.jpg>

³ Recognised Principles of E-Contract- **Offer**: The law already recognizes contracts formed using facsimile, telex and other similar technology. An agreement between parties is legally valid if it satisfies the requirements of the law regarding its formation, i.e. that the parties intended to create a contract primarily. This intention is evidenced by their compliance with 3 classical cornerstones i.e. offer, acceptance and consideration. One of the early steps in the formation of a contract lies in arriving at an agreement between the contracting parties by means of an offer and acceptance. Advertisement on website may or may not constitute an offer as offer and invitation to treat are two distinct concepts. Being an offer to unspecified person, it is probably an invitation to treat, unless a contrary intention is clearly expressed. The test is of intention whether by supplying the information, the person intends to be legally bound or not. When consumers respond through an e-mail or by filling in an online form, built into the web page, they make an Offer. The seller can accept this offer either by express confirmation or by conduct. **Acceptance**: Unequivocal unconditional communication of acceptance is required to be made in terms of the offer, to create a valid e-contract. The critical issue is when acceptance takes effect, to determine where and when the contract comes into existence. The general receipt rule is that acceptance is effective when received. For contracting no conclusive rule is settled. The applicable rule of

electronic contract. E-Contract is an aid to drafting and negotiating successful contracts for consumer and business e-commerce and related services. It is designed to assist people in formulating and implementing commercial contracts policies within e-businesses. It contains model contracts for the sale of products and supply of digital products and services to both consumers and businesses.

II. BASIC FORMS OF E-CONTRACT

Generally the basic forms of "E-Contracts" that a person comes across if he is computer savvy are:

A) The Click-wrap or Web-wrap Agreements.

B) The Shrink-wrap Agreements.

C) The Electronic Data Interchange or (EDI).

Web-click contracts: The case of web-click or click-wrap contracts is different as such contracts are formed instantaneously: "The main difference between click -wrap contracts and e-mail is that communications between web clients and servers, unlike e-mails is instantaneous. The best way to imagine the transfer of data between computers is to treat it as a telephone conversation, just one between computers rather than individuals. If either party goes offline at any point, the other will be aware of the change in status. This is because all communications between clients and servers have an inbuilt self-checking mechanism called a check sum."

Click-wrap or Web-wrap Agreements: These are the agreements which we generally come across while surfing internet such as "I AGREE" to the terms or "I DISAGREE" to the above conditions. Now let us see the peculiarities of these contracts and the specific industries that put it to use. First and foremost are the Click-wrap agreements. Click-wrap agreements are those whereby a party after going through the terms and conditions provided in the website or program has to typically indicate his assent to the same, by way of clicking on an "I Agree" icon or decline the same by clicking "I Disagree". These type of contracts are extensively used on the Internet, whether it be granting of a permission to access a site or downloading of a software or selling something by way of a website.

The Shrink-wrap Agreements: These are the agreements generally contains the CD Rom of software. The terms and conditions are printed on the cover of CD Rom. Sometimes additional terms are imposed when in such licenses appear on the screen when the CD is downloaded to the computer The user has right to return if the new terms and conditions are not to his liking. The Shrink-wrap agreements constitutes after reading the terms of the license featured outside the wrap license opens the cover coupled with the fact that he accepts the whole terms of the license that appears on the screen by a key stroke.

communication depends upon reasonable certainty of the message being received. When parties connect directly, without a server, they will be aware of failure or partial receipt of a message. Such party realizing the fault must request re-transmission, as acceptance is only effective when received. When there is a common server, the actual point of receipt of the acceptance is crucial in deciding the jurisdiction in which the e-contract is concluded. If the server is trusted, the postal rule may apply, if however, the server is not trusted or there is uncertainty concerning the e-mail's route, it is best not to apply the postal rule. When arrival at the server is presumed insufficient, the 'receipt at the mail box' rule is preferred. **Consideration and Performance:** Contracts result only when one promise is made in exchange for something in return. This something in return is called 'consideration'. The present rules of consideration apply to e-contracts. There is concern among consumers regarding Transitional Security over the Internet. The e-directive on Distance Selling tries to generate confidence by minimizing abuse by purchasers and suppliers.

⁴ A party that commits breach of an agreement may face various types of liability under contract law. Due to the nature of the systems and the networks that business employ to conduct e-commerce, parties may find themselves liable for contracts which technically originated with them but, due to programming error, employee mistake or deliberate misconduct were executed, released without the actual intent or authority of the party. Sound policies dictate that parties receiving messages be able to rely on the legal expressions of the authority from the sender's computer and this legally be able to attribute these messages to the sender. In addition to employing information security mechanisms and other controls, techniques for limiting exposure to liability include; Trading partner and legal technical arguments; Compliance with recognized procedures, guidelines and practices; Audit and control programmers and reviews; Technical competence and accreditation; Proper human resource management; Insurance; Enhance notice and disclosure mechanisms; and Legislation and regulation addressing relevant secure electronic commerce issuing.

Further, communication of an offer or acceptance in the web-click mode is complete when the addressee is in receipt of the electronic record as defined in Section 13(2) of the IT Act.

Electronic Data Interchange or (EDI): These contracts used in trade transactions which enables the transfer of data from one computer to another in such a way that each transaction in the trading cycle (for example, commencing from the receipt of an order from an overseas buyer, through the preparation and lodgment of export and other official documents, leading eventually to the shipment of the goods) can be processed with virtually no paperwork. Here unlike the other two there is exchange of information and completion of contracts between two computers and not an individual and a computer.

III. LEGAL VALIDITY OF E-CONTRACT

Electronic contracts are governed by the basic principles elucidated in the Indian Contract Act, 1872, which mandates that a valid contract should have been entered with a free consent and for a lawful consideration between two adults.⁵ It also finds recognition under section 10A of the Information Technology Act, 2000 that provides validity to e-contracts. Accordingly, both Indian Contract Act, 1872 and Information Technology Act, 2000 needs to be read in conjunction to understand and provide legal validity to e-contracts. Further, provisions of the Evidence Act, 1872 also provides that the evidence may be in electronic form.⁶ The Supreme Court in *Trimex International FZE Ltd. Dubai v. Vedanta Aluminum Ltd.*⁷ recognizing the validity of e-transaction has held that e-mails exchanges between parties regarding mutual obligations constitute a contract.

The Indian Contract Act vis-à-vis E-transactions: The ICA, 1872 provides that where a person who is in a position to dominate the will of another, enters into a contract with him, and the transaction appears, on the face of it or on evidence adduced, to be unconscionable, the burden of proving that such contract was not induced by undue influence shall lie upon the person in a position to dominate the will of the other.⁸ Consequently, in cases of dispute over e-contracts the entity carrying out the e-commerce will have the onus to establish that there was no undue influence.

Further, the Act also provides that the consideration or object of any agreement is unlawful when it is forbidden by law, or is of such a nature that if permitted, it would defeat the provisions of any law; or is fraudulent, or involves or implies injury to the person or property of another, or the Court regards it as immoral or opposed to public policy.⁹ Thus, the entity is also required to keep these prerequisites in mind while entering into an e-transaction.

Section 13 of IT Act, 2000 vis-à-vis Section 4 of ICA, 1872: Section 13 of IT Act only explains and clarifies, inter alia, when the dispatch and receipt of electronic records¹⁰ take place and is meant purely for ascertaining the time of dispatch and receipt of information, which is a relevant factor in many contracts. This Section, in fact, reflects the 'functional equivalent' approach adopted by the Model law, which does not seek to alter national law applicable to contract formation, but only aims to provide electronic communications with the same degree of legal certainty as paper-based communications.¹¹ Section 13 of the Information Technology Act, therefore, only offers a framework for understanding the formation of e-contracts in India. It does not, in any way, alter or modify the existing substantive law of contract. In order to ascertain the formation of electronic contracts, one has to read Section 13 together with Section 4 of the Contract Act which enunciates certain rules regarding the communication of proposals, acceptance and revocation. Section 13 of the Information Technology Act comes in handy when applying these rules to E-contracts.

For example, in the case of an acceptance made by an electronic record, a combined reading of the two sections will evolve the following rules. The communication of an acceptance is complete as against the offeror, when

⁵ The Indian Contract Act 1872, Section 10.

⁶ The Evidence Act 1872, Section 3.

⁷ 2010 (1) SCALE 574.

⁸ The ICA 1872, Section 16(3).

⁹ Ibid, section 23.

¹⁰Section 2(1) of the Act defines an 'electronic record' as: 'data, record or data generated, image or sound stored, received or sent in an electronic form or micro lm or computer generated micro fiche.

¹¹ Paragraph 78 of the Guide to Enactment of the Model Law on Electronic Commerce, available at <http://www.uncitral.org/english/texts/electcom/ml-ec.htm>.

*the electronic record is dispatched such that it enters a computer resource outside the control of the originator (acceptor) and as against the acceptor, when the electronic record enters any information system designated by the offeror for the purpose, or, if no system is designated for the purpose, when the electronic record enters the information system of the offeror, or, if any information system has been designated, but the electronic record is sent to some other information system, when the offeror retrieves such electronic record.*¹²

The Supreme Court of India, recognizing the distinction between ‘postal rules’ and ‘receipt rules’ as elaborated in *Bhagwandas v. Girdharilal*,¹³ following the English decision in *Entores Ltd v. Miles Far East Corporation*¹⁴ had held that Section 4 is applicable only in non-instantaneous forms of communication and does not apply to instantaneous forms of communication.¹⁵ Therefore, it may be noted that this method is useful only for non-instantaneous forms of communication like contracts concluded by E-mail and may be inapplicable in instantaneous forms like ‘web click’ contracts. In the case of instantaneous forms of communication, it has been held that a contract is formed when the offeror receives the acceptance. Therefore, in the virtual world, an offer or acceptance is complete when the addressee is in receipt of the electronic record as defined in Section 13(2) of the Information Technology Act, 2000.

IV. EVIDENTIARY VALUE OF E-CONTRACTS UNDER THE INDIAN EVIDENCE ACT

It is pertinent to contextualize at this juncture that evidence recorded or stored by availing the electronic gadgets is given the evidentiary status. For instance: the voice recorded with the help of a tape recorder. Now -a-days, the digital voice recorder, digital cameras, digital video cameras, video conferencing are adding a new dimension to the evidentiary regime. Video conferencing evidence is valid. The emergence of information and communication witnessed sea change by elevating the status of the evidence recorded, generated or stored electronically from the secondary to primary evidential status. The shift in the paradigm owes to the efforts of the working group of the UNCITRAL Model law on electronic commerce and assigning of the legal recognition to e-record or data message.

The evidentiary value of e-contracts can be well understood in the light of the following sections of Indian Evidence Act. Sections 85A, 85B, 85C, 88A, and 90A deals with the presumptions as to electronic records whereas Section 65B relates to the admissibility of electronic record. The above mentioned sections can be explained as follows:

Section 85A: As regards presumption to electronic agreements, this section is incorporated. It says that every electronic record of the nature of an agreement is concluded as soon as a digital signature is affixed to the record. Section 85A has been added in order to ensure the validity of e-contracts. But there are some restrictions as regards the presumptive value. The presumption is only valid to electronic records, electronic records that are five years old and electronic messages that fall within the ambit of Section 85B, Section 88A and Section 90A of Indian Evidence Act.

Section 85B: Section 85B provides that the court shall presume the fact that the record in question has not been put to any kind of alteration, in case contrary has not been proved. The secure status of the record may be demanded till a specific time. The digital signature¹⁶ should also be presumed to have been affixed with an

12. C. M. ABHILASH, *E-Commerce Law in Developing Countries: An Indian Perspective*, Information & Communication Technology Law, Vol. 11, No. 3, 2002, Carfax Publishing.

¹³ *Bhagwandas Goverdhandas Kedia v. Girdharilal Parshottamdas and Co.*, AIR 1966 SC 543.

¹⁴ [1955] 2 QB 327.

¹⁵ Murray, Andrew (2000) *Entering into Contracts Electronically: The Real W.W.W.*, in Lillian Edwards & Charlotte Waelde (Eds), *Law and the Internet—A Framework for Electronic Commerce* (Oxford, Hart).

¹⁶ Section 2(p) of The Information Technology Act, 2000 defines “Digital Signature” as authentication of any electronic record by a subscriber by means of an electronic method or procedure. A digital signature functions for electronic documents like a handwritten signature does for printed documents. The signature is an unforgeable piece of data that asserts that a named person wrote or otherwise agreed to the document to which the signature is attached. A digital signature actually provides a greater degree of security than a handwritten signature. The recipient of a digitally signed message can verify both that the message originated from the person whose signature is attached and that the message has not been altered either intentionally or accidentally since it was signed. Furthermore, secure digital signatures cannot be repudiated; the signer of a document cannot later disown it by claiming the signature was forged. In other words, digital signatures enable digital signature of digital messages, assuring the recipient of a digital message of both the identity of the sender and the integrity of the message. The fundamental drawback of online contracts is that if there is no alternate means

intention of signing and approving the electronic record. Further it has been provided that the section should not be misread so as to create any presumption relating to the integrity or authenticity of the electronic record or digital signature in question.

Section 88A: “The court may presume that an electronic message forwarded by the originator through an electronic mail server to the addressee to whom the message purports to be addressed corresponds with the message as fed into his computer for transmission, but the court shall not make any presumption as to the person by whom such message was sent”.

This section is self-explanatory as it purports to follow the basic rules of a valid hard-copy agreement. The words “may presume” authorize the court to use its discretionary power as regards presumption. Sections 85A and 85B contained the words “shall presume” which expressly excluded this discretionary power of the court.

Section 90A: In case of an electronic record being five years old, if proved to be in proper custody, the court may presume that the digital signature was affixed so as to authenticate the validity of that agreement. The digital signature can also be affixed by any person authorized to do so. For the purpose of this section, electronic records are said to be in proper custody if they are in the custody of the person with whom they naturally be. An exception can be effected in case circumstances of a particular case render its origin probable.

Section 85C: As far as a digital signature certificate is concerned, the court shall presume that the information listed in the certificate is true and correct. Inclusion of the words “shall presume” again relates to the expressed exclusion of the discretionary power of the court.

Section 65B: Section 65B talks about admissibility of electronic records. It says that any information contained in an electronic record which is printed on a paper or stored/recorded/copied on optical/magnetic media produced by a computer shall be deemed to be a document and is admissible as evidence in any proceeding without further proof of the original, in case the following conditions are satisfied:

The computer output was produced during the period over which the computer was used regularly to store or process information by a person having lawful control over the use of the computer. In case a combination of computers, different computers or different combinations of computers are used over that period, all the computers used are deemed to be one single computer. The information contained should have been regularly fed into the computer, during that period, in the ordinary course of activities. The computer was operating properly during that period and if not, it would not have affected the accuracy of data entered.

A certificate issued is also admissible if it contains a statement which: Identifies the electronic record containing the statement. Gives information about the particulars of the computer involved in the production of record. The certificate issued should be signed by a person officially responsible for the use of that device in relation to the relevant activity. The information fed into the computer should be in appropriate form as well as by appropriate device.

V. E-CONTRACT DISPUTE

Disputes are usually settled within the physical territory where one or both of the parties are located. However, with an online enterprise, customers could be located anywhere in the World. Now the biggest question that comes to one’s mind is that how does an enterprise cope up with such broad exposure. To verify the consumer's location is virtually impossible. A consumer may even be able to pay for services anonymously using the digital equivalent of cash e.g. e-Cash. It is pertinent to note that where goods require a physical delivery, an online enterprise can restrict its customer base to those jurisdictions where it is delivered but with digital goods and services that are delivered online, this is almost impossible, and the enterprise may have to rely on the truthfulness of the customer's information regarding their location.¹⁷

Example: A motor vehicle manufacturer makes several online transactions such as buying tires, glass for windscreens, and rubber hoses for its vehicles. If the supplier fails to perform its obligation within the stipulated time limit this may lead to an e-commerce dispute.

of identifying a person on the other side than digital signatures or a public key, it is possible to misrepresent one’s identity and try to pass off as somebody else.

¹⁷ <http://cyber.law.harvard.edu/ecommerce/disputes.html>.

TYPES OF E-COMMERCE DISPUTE

Electronic commerce brings both comforts and discomforts to its users. The comforts include on the spot sales and purchase, competitive costs, convenience, saving of time, etc. The discomforts include frauds and cyber crimes committed against e-commerce users. At times there are disagreements and dissatisfactions as well among buyers and purchasers that cannot be resolved using traditional litigation methods.¹⁸ Thus, it can be said that disputes are inevitable in the course of the life of a business, whether online or offline. The business disputes which the enterprise may encounter in e-commerce are:

A. Contractual disputes:¹⁹

Disputes that arise out of some non-fulfillment of any contractual obligation are said to be known as *Contractual Disputes*. There are numerous kinds of contractual disputes existing in the corporate arena, some of which are:

- *Disputes between the enterprise and the Internet Service Provider (ISP)*: These are the dispute that arises between the enterprise and the Internet Service Provider (ISP) or web-hosting services provider, including disagreements over interruptions in service, breach in data security etc. *Example*: if A, an ISP, contracts with an enterprise, B, to provide an uninterrupted web hosting service to B. But A fails to provide the same. This may lead to a dispute between A and B.
- *Business-to-business (B2B) disputes*: These kinds of disputes usually take place between the enterprise and its suppliers such as nonperformance of contractual obligations, misrepresentations, and complaints from customers regarding services provided by suppliers. *Example*: an automobile manufacturer makes several B2B transactions such as buying tires, glass for windscreens, and rubber hoses for its vehicles. If the supplier fails to perform its obligation within the stipulated time limit this may lead to a B2B dispute.
- *Business-to-consumer (B2C) disputes*: These disputes are common between the enterprise and its customers such as non-payment for goods or services, non-performance of contractual obligations, poor performance of contract, misrepresentations, breach of the privacy policy, and breach of security of confidential information. It is between the enterprise and its customers that lies the greatest possible scope for disputes. *Example*: The final transaction (in the previous example), a finished vehicle sold to the consumer, is a single (B2C) transaction. If the consumer finds any defect in the vehicle then this may lead to a B2C dispute.

B. Non-contractual disputes:²⁰

Non-contractual disputes are basically those disputes that arise due to non-observance of any statutory obligation on part of the parties to the transaction. These are the common kinds of noncontractual disputes that may arise in an online enterprise.

- *Dispute over Copyright*: The enterprise might be liable for copyright infringement if it uses copyrighted material in excess of fair use, and without permission.²¹ *Example*: An enterprise provides an online English-Hindi dictionary Facility to the users. Another enterprise subsequently published another online English-Hindi dictionary Facility. The former enterprise can sue the latter for infringement of copyright under section 51 of the Copyright Act, 1957.
- *Failure in Data protection*: The enterprise may be liable for sharing or revealing confidential data on customers, as discussed in the segment on Privacy.²² *Example*: If the services provided by an enterprise are of such a nature that the law mandates that it is the duty of the enterprise to provide data protection to the customers. Failure in observing such a mandate may give rise to a liability under the IT Act, 2000.
- *Competition law, Domain name disputes*: The enterprise may be subject to trademark infringement suits if it infringes a registered or otherwise legally recognized trademark.²³ *Example*: In US, if the enterprise has registered a domain name which corresponds to a registered or common law trademark, it may be subject to

¹⁸ <http://odrindia.in/tlceodri/?p=21>

¹⁹ Supra 17.

²⁰ Ibid.

²¹ Under the provisions of Copyright Act, 1957.

²² Under the provisions of IT Act, 2000.

²³ Under the provisions of the Trademarks Act, 1999.

a complaint under ICANN's Uniform Domain Name Dispute Resolution Policy (UDRP), or the U.S.federal Anti cyber squatting Consumer Protection Act.²⁴

Henceforth, it is significant to note that although many of the issues such as jurisdictional issues, choice of law issue, high cost of cross-jurisdictional litigation issue, which arise in relation to the different categories of disputes, are similar, the difficulties are perhaps more pronounced in respect of B2C transactional disputes which are often of small monetary value. Traditional methods of resolving crossjurisdictional commercial disputes, such as international commercial arbitration, are often too costly, inconvenient and burdensome in the context of consumer disputes.

VI. JURISDICTION OVER E-COMMERCE DISPUTES

The traditional approach to jurisdiction invites a court to ask whether it has the territorial, pecuniary, or subject matter jurisdiction to entertain the case brought before it. With the internet, the question of 'territorial' jurisdiction gets complicated largely on account of the fact that the internet is borderless. Therefore, while there are no borders between one region and the other within a country there are no borders even between countries.²⁵

Basis of Jurisdiction under Indian Law

E-commerce websites operating in India are required to follow many laws of India including the Information Technology Act, 2000. As per the IT Act, 2000 these e-commerce websites operating in India are Internet intermediaries and they are required to comply with cyber law due diligence requirements as well.²⁶

Further, the legal requirements for undertaking e-commerce in India also involve compliance with other laws like contract law, Indian penal code, etc. Further, online shopping in India also involves compliance with the banking and financial norms applicable in India.

VII. INDIAN STATUTES AND E-COMMERCE JURISDICTION

In short, the highly profitable e-commerce segment of India must be explored only after complying with the laws governing the respective e-commerce segment. There is no single set of laws and regulations that govern all e-commerce segments and every e-commerce segment is governed by different laws.

Information Technology Act, 2000 vis-à-vis E-Commerce

The objectives of the Information Technology Act, as outlined in the preamble, are to provide legal recognition for E-commerce transactions, facilitate Electronic Governance and to amend the Indian Penal Code, 1860; Indian Evidence Act, 1872; the Bankers' Book Evidence Act 1891 and the Reserve Bank of India Act, 1934. The Act also establishes a regulatory framework for cyber laws and lays down punishment regimes for different cyber crimes and offences.

The provisions of this Act enables the act applicable also to those offences or contraventions committed outside India by any person irrespective of his nationality if the act or conduct constituting the offence or contravention involves a computer, computer system or computer network located in India.²⁷

Example: Mr. A, a person residing in America, provides an online service to the consumers all over the world. If Mr. A commits an offence under the IT Act, 2000, then also he can be sued in Indian Courts. The IT Act 2000 attempts to change outdated laws and provides ways to deal with cyber crimes. Let's have an overview of the law where it takes a firm stand and has got successful in the reason for which it was framed.²⁸

1. The E-commerce industry carries out its business via transactions and communications done through electronic records. It thus becomes essential that such transactions be made legal. Keeping this point in the consideration, the IT Act 2000 empowers the government departments to accept filing, creating and retention of official documents in the digital format. The Act also puts forward the proposal for setting up

²⁴ Berkman Center Online Lecture & Discussion Series by Diane Cabell, "Using ICANN's UDRP"(Website)

²⁵ Justice S. Muralidhar , Jurisdictional Issues in Cyberspace, VOLUME 6, The Indian Journal of Law and Technology,2010.

²⁶ The Information Technology (Intermediaries guidelines) Rules 2011, Rule 3.

²⁷ The IT Act, 2000, Section 75.

²⁸ <http://www.cyberlawsindia.net/2sides.html>.

the legal framework essential for the authentication and origin of electronic records / communications through digital signature.²⁹

2. The Act legalizes the e-mail and gives it the status of being valid form of carrying out communication in India. This implies that e-mails can be duly produced and approved in a court of law, thus can be regarded as substantial document to carry out legal proceedings.³⁰ *Example:* If, Mr. A offers Mr. B to provide transport services via e-mail and Mr. B subsequently in his reply affirms the same via e-mail itself, then this can be considered as valid means of carrying out communication.
3. The act also talks about digital signatures and digital records. These have been also awarded the status of being legal and valid means that can form strong basis for launching litigation in a court of law. It invites the corporate companies in the business of being Certifying Authorities for issuing secure Digital Signatures Certificates.³¹ *Example:* Mr. A, enters into an online contract (along with a attached Digital Signatures Certificate) with Mr. B to provide transport services to Mr. B. if Mr. A makes a default in providing such facility to Mr. B, then in such a case Mr. B can produce such document in court of law.

THE INDIAN PENAL CODE, 1908

The Act provides for punishment of offences committed beyond the four walls of India, but which by law may be tried within, India. It states that any person liable, by any Indian law to be tried for an offence committed beyond India shall be dealt with according to the provisions of this Code for any act committed beyond India in the same manner as if such act had been committed within India.³² There does not seem too much jurisprudence in India on the issue of jurisdiction in cases of e-commerce. However there are some instances where in the courts had in the preliminary stages assumed jurisdiction over a matter.

In the case of *SMC Pneumatics (India) Pvt. Ltd. v. Jogesh Kwatra*,³³ the Delhi High Court assumed jurisdiction where a corporate reputation was being defamed through e-mails. Further, the Act also provides for extension of the Code to extra-territorial offences. The provisions of this Code apply also to any offence committed by any person in any place without and beyond India committing offence targeting a computer resource located in India. It further defines the word "offence" includes every act committed outside India which, if committed in India, would be punishable under this Code.³⁴

Example: Mr. X, a person residing in America, provides an online service to the consumers all over the world. If Mr. X commits an offence targeting a computer resource located in India under the IPC, 1860, then he can be held liable under the Act.

THE CIVIL PROCEDURE CODE, 1908

The Act gives the discretion to the plaintiff to file a suit for compensation for wrongs to person or movables, if the wrong was done within the local limits of the jurisdiction of one Court and the defendant resides, or carries on business, or personally works for gain, within the local limits of the jurisdiction of another Court, the suit may be instituted at the option of the plaintiff in either of the said Courts.³⁵

Examples: Mr. A, residing in Delhi, publishes on his website in Calcutta statements defamatory of B. B may sue A either in Calcutta or in Delhi. The Act further provides that every suit shall be instituted in Court within the local limits of whose jurisdiction the any of the defendant resides or the cause of action arises.³⁶ It further explains that a corporation shall be deemed to carry on business at its sole or principal office in India or, in respect of any cause of action arising at any place where it has also a subordinate office, at such place.³⁷

²⁹ The IT Act, 2000, Section 6.

³⁰ Idbi, Section 10A.

³¹ Idbi, Section 3A, section 5 & section 10.

³² The IPC, 1860, Section 3.

³³ Suit No. 1279/2001. This case is still pending. Sited from "Ascertaining Cyber Jurisdiction in Cyber Space: Jurisprudential Understanding and A Comparative Analysis" published by AIR Journal and available at <http://www.allindiareporter.in/articles/index.php?article=1022> and orders available on Delhi High Court website http://www.delhihighcourt.nic.in/dhc_case_status_list_new.asp.

³⁴ The IPC, 1860, section 4.

³⁵ The CPC, 1908, Section 19.

³⁶ Ibid, Section 20.

³⁷ Ibid.

Furthermore, it also makes a foreign judgment to be conclusive as to any matter thereby directly adjudicated upon between the same parties or between parties under whom they or any of them claim litigating under the same title except under certain specified conditions.³⁸ Talking about the presumption as to foreign judgments the provisions of the Act states that the Court shall presume upon the production of any document purporting to be a certified copy of a foreign judgment that such judgment was pronounced by a Court of competent jurisdiction, unless the contrary appears on the record; but such presumption may be displaced by proving want of jurisdiction.³⁹

VIII. INTERNATIONAL INSTRUMENTALITIES GOVERNING E-COMMERCE

- *United Nations Convention on the Use of Electronic Communications in International Contracts (New York, 2005)*: The Electronic Communications Convention aims at facilitating the use of electronic communications in international trade by assuring that contracts concluded and other communications exchanged electronically are as valid and enforceable as their traditional paper-based equivalents.⁴⁰ Whether the Convention applies to a given international commercial transaction is a matter to be determined by the choice of law rules of the State whose court is asked to decide a dispute (*lex fori*). The Convention is also applicable if the parties to the contract have validly chosen its provisions as the law applicable to the contract.⁴¹ *Example*: If the rules of private international law of that State require application of the substantive law of a Contracting State to the resolution of the dispute, the Convention will apply as law of that Contracting State, irrespective of the court's location. Europe has specific rules relating to jurisdictional issues arising of e-commerce activity.

- *The Brussels Convention on Jurisdiction and Recognition of Enforcement of Judgments in Civil and Commercial Matters, 1968* (known as “the Brussels Convention”) govern the issue of jurisdiction.⁴² The purpose of this Convention is “to determine the international jurisdiction of their courts, to facilitate recognition and to introduce an expeditious procedure for securing the enforcement of judgments, authentic instruments and court settlements”; and

- *The EC Convention on the Law Applicable to Contractual Obligations, 1961*⁴³ (known as “the Rome Convention”) governs the issue of applicable law for consumer contracts concluded over the Internet.⁴⁴

- a. Under these conventions, jurisdiction and applicable law for consumer contracts are based on whether consumer is “active” or “passive”.
- b. The consumer is considered “passive” when he executes a contract where he is domiciled, and such contract was preceded by a specific invitation or by advertising.
- c. A passive consumer can bring a lawsuit arising out of that contract in his or her country and the laws of the consumer’s country would apply.
- d. A choice of forum clause in a contract would not change this result and a choice of law clause in a contract could not override the mandatory protections afforded in a consumer’s country.

Example: A is a tradesman who maintains his website from USA targets Consumers all over the world; B is a resident of India. B buys goods of A, online and requests A to deliver them to his address in India. This is a case of passive jurisdiction.

Furthermore, *the Hague Conference on Private International Law (HCPIL)* has issued a Convention on Exclusive Choice of Court Agreements concluded in Civil and Commercial Matters. It aims to create an

³⁸The CPC, 1908, section 13.

³⁹*Ibid*, section 14.

⁴⁰http://www.uncitral.org/uncitral/en/uncitral_texts/electronic_commerce/2005Convention.html.

⁴¹*Ibid*.

⁴²From the Preamble of the Convention, Protocol of September 27, 1968 is annexed to the Convention. The Convention is also amended by the Accession Conventions under the successive enlargements of the European Communities. It has been replaced by Council Regulation (EC) No. 44/2001 on jurisdiction and the recognition and enforcement of judgments in civil and commercial matters (Brussels I Regulation) which entered into force on March 1, 2002.

⁴³<http://www.wipo.int/treaties/en/ip/rome/>

⁴⁴Jurisdictional Issues in Internet Disputes by Talwant Singh Addl. District & Sessions Judge; Delhi.

international legal regime that ensures the effectiveness of exclusive choice of court agreements concluded by private parties in civil and commercial transactions.⁴⁵

IX. MAIN FINDINGS

E-contract is a contract modeled, specified, executed and deployed by a software system. E-contracts are conceptually very similar to traditional (paper based) commercial contracts. Vendors present their products, prices and terms to prospective buyers. Buyers consider their options, negotiate prices and terms (where possible), place orders and make payments. Then, the vendors deliver the purchased products. Nevertheless, because of the ways in which it differs from traditional commerce, electronic commerce raises some new and interesting technical and legal challenges.

E-contracts are well suited to facilitate the re-engineering of business processes occurring at many firms involving a composite of technologies, processes, and business strategies that aids the instant exchange of information. The e-contracts have their own merits and demerits. On the one hand they reduce costs, saves time, fasten customer response and improve service quality by reducing paper work, thus increasing automation. With this, E-commerce is expected to improve the productivity and competitiveness of participating businesses by providing unprecedented access to an on-line global market place with millions of customers and thousands of products and services. On the other hand, since in electronic contract, the proposal focuses not on humans who make decisions on specific transactions, but on how risk should be structured in an automated environment. Therefore the object is to create default rules for attributing a message to a party so as to avoid any fraud and discrepancy in the contract.

CONCLUSION

E-contracts are well suited to facilitate the re-engineering of business processes occurring at many firms involving a composite of technologies, processes, and business strategies that aids the instant exchange of information. The e-contracts have their own merits and demerits. On the one hand they reduce costs, saves time, fasten customer response and improve service quality by reducing paper work, thus increasing automation. With this, E-commerce is expected to improve the productivity and competitiveness of participating businesses by providing unprecedented access to an on-line global market place with millions of customers and thousands of products and services. On the other hand, since in electronic contract, the proposal focuses not on humans who make decisions on specific transactions, but on how risk should be structured in an automated environment. Therefore the object is to create default rules for attributing a message to a party so as to avoid any fraud and discrepancy in the contract.

To end with, it can be said that electronic contracts are almost same as other hard copy contracts as far as its evidentiary value is concerned and in case of any discrepancy there are certain prerequisites that fill the lacunae. All electronic contracts are valid contracts as they are legalized by the Information Technology Act and one could be made liable if there is any infringement with the terms and conditions. Subsequently many amendments have been made in order to attain conceptual clarity.

Hereby it is pertinent to note that E-commerce websites should lay down purchasing and payment process in sequence with absolute clarity, regular updating and monitoring of information provided. The terms and conditions should not be general in nature but specific depending upon the nature of the goods & services offered and they should be brought to the sufficient attention of the consumers and provide ample opportunity to read and then accept. E-commerce players should ensure reasonable efforts to prevent unauthorized transaction. E-commerce business is in nascent stage but the growth has been exemplary. It is crucial for e-commerce players to work towards capacity building by training employees and alarming them against the risks discussed above. Working and more crucially implementing the risk management policy and strategy for overall risk mitigation of the company is critical. Constant monitoring and evaluating the consumer behavior (like by keeping track of their footprints on their websites, which can also serve as an evidence at a later stage) for risk assessment and taking further initiatives for a strategic & dynamic approach to the digital economy is crucial. At the end of the day, e-commerce is more about strategy and business management than it is about technology. The online platform should not only provide innovative infrastructure but also innovative and proprietary information structures with sufficient protections and safeguards for its users. This will ensure the problems will remain at bay or at least the companies would be prepared with a strategy to tackle them.

⁴⁵Ibid.

CORPORATE SOCIAL RESPONSIBILITY: CASE STUDY OF STARBUCKS

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ABSTRACT

Corporate Social Responsibility encompasses the economic, legal, ethical and discretionary expectation that the society has of organizations at a given point of time. In India, Corporate Social Responsibility is linked to spirituality, while respect in the corporate world has been treated at par with the bottom line. The present study is to investigate how independent variable such as Net profit, Revenue, Earning per share has a relationship and impact with dependent variable CSR with the special reference of Starbucks.

INTRODUCTION**1.1 Starbucks Founding**

The first Starbucks opened in Seattle, Washington, on March 30, 1971 by three partners who met while students at the University of San Francisco: English teacher Jerry Baldwin, history teacher Zev Siegl, and writer Gordon Bowker.

The first Starbucks cafe was located at 2000 Western Avenue from 1971–1976. This cafe was later moved to 1912 Pike Place Market; never to be relocated again. During this time, the company only sold roasted whole bean coffees and did not yet brew coffee to sell. The company name was inspired by Moby Dick that it evoked the romance of the high seas and the seafaring tradition of the early coffee traders.

1.2 Starbuck Background

In 1981, Howard Schultz came to Starbuck and he would like to be a part of Starbuck. After that Starbuck agreed and hired Howard Schultz. He had to work hard with Starbuck and his ideas was about the tremendous potential of expanding the Starbucks enterprise outside Seattle and exposing people all over America to Starbucks coffee. Meanwhile, the owners have against in his ideas that it made him despondent. The Starbucks management wanted to focus on traditional core business of selling only coffee beans and equipment. But Howard still remained important on this part and finally the owners rethink and believe in his ideas. During 1983, Howard went to Italy and he became enchanted with Italian coffee bars and romance of the coffee experience. Schultz got the idea to change the shops like a style of Italian coffee but he has adapted in case of American style.

In the late 1985, Howard Schultz left Starbucks, he started his own company. His plan was to open espresso bars in high-traffic downtown location. The name of his company was Il Giornale Coffee Company. In March 1987, the owners decided to sell Starbuck in Seattle, when Howard learnt of this, he immediately decided to buy Starbucks and finally his acquisition was completed in August 1987. So he became Starbucks' president and CEO until now a day.

After acquisition of Starbuck in 1987, Howard has integrated between Il Giornale and Starbucks together. Howard worked hard on popularizing coffee such as the café latte, later and the Frappuccino. His plan's objective expanded Starbuck stores of 125 in 1987, 15 new stores opened in fiscal 1988, 20 in 1989, 30 in 1990, 32 in 1991, and 53 in 1992-producing a total of 161 stores. It was exceeded for expansion Starbucks' stores and became profitable in 1990; profits had increased every year. From Starbucks' founding in 1971 as a Seattle coffee bean roaster and retailer, the company has expanded rapidly. Since 1987, Starbucks has opened on average two new stores every day.

1.3 Starbucks Current status

Starbucks Corporation is an American global coffee company and coffeehouse chain. Nowadays, the Starbucks Company still continuously expands the store around the world. They still find the best things to their customers. Starbucks is the largest coffeehouse company in the world, with 20,891 stores in 62 countries, including 13,279 in the United States, 1,324 in Canada, 989 in Japan, 851 in China, and 806 in the United Kingdom. Tata Starbucks Ltd is a 50:50 joint venture company, owned by Starbucks Corporation and Tata Global Beverages, that owns and operates Starbucks outlets in India. Starbucks has 31 stores in India.

1.4 Starbucks products and Services diversity

There are three products in Starbucks shops: Drink, Food and Nutrition.

Drink: The organization has slogan "a perfect cup of coffee" the reason why it selects the best beans throughout the world. Then bringing them into the process to give the great flavour in which the company gives customers

the perfect drink. There are many kinds of coffee both bottled drinks and cold drink Brewed Coffee. It is not only the perfect cup of coffee but also Starbucks has provided other drinks like Chocolate Beverages. Moreover Starbucks has provided Frappuccino Blended Beverages.

Food: The Company provides many kinds of foods for customers to enjoy the foods in the Starbucks shops which are naturally scrumptious. It is not only good food but it is better for the customers` health. For instance, the bakery, there are many kinds of bakeries such as Chocolate bloom cupcake, Chocolate croissant, Pumpkin Scone, etc. It`s also including salads such as Deluxe Fruit Blend, Sandwiches, etc.

Entertainment: The Starbucks Company would like to entertain the customers when they come to stores. They focus on music, artwork and culture to motivate the feeling of customers when customers come to sit and drink coffee in the stores. It makes their customers to enjoy with coffee. The company has created the unique shops to make customers percept in the brand and feeling of the flavored coffee. Thus, the company has provided variety of things. 2.What is Corporate Social Responsibility?

In the today`s business world, there are many strategies being used to run businesses. In the recent past, the topic of Corporate Social Responsibility (CSR) has grown rapidly. People are starting to demand that companies take their social responsibility seriously. Many companies have started to engage in CSR as a strategy in order to gain benefits that can give them an added advantage over their competitors. There have been increasing numbers of companies engaged in CSR to run their businesses. Nowadays corporate social responsibility (CSR) can drive companies to succeed in business by increasing sales volume and brand awareness. The World Business Council for Sustainable Development in its publication Making Good Business Sense by Lord Holme and Richard Watts, used the following definition.

“Corporate Social Responsibility is the continuing commitment by business to behave ethically and contribute to economic development while improving the quality of life of the workforce and their families as well as of the local community and society at large”

Definition of Corporate Social Responsibility (CSR)

We introduce corporate social responsibility by concept of Carroll, which will help us to answer the purpose and define how it can make us to understand how Starbucks succeeds with CSR.

There are different views regarding the relationship between CSR and business. The concept of CSR is still unclear because there are many institutions that focus only on business to make and increase profits while other businesses are interested in adopting a good sense of CSR.

According to Carroll, *“corporate social responsibility involves the conduct of a business so that it is economically profitable, law abiding, ethical and socially supportive. To be socially responsible then means that profitability and obedience to the law are foremost conditions when discussing the firm’s ethics and the extent to which it supports the society in which it exists with contributions of money, time and talent”*.

From the above definition, CSR entails that companies should give back the benefits to the consumers and other stakeholders. This means that companies should not only be concerned with their profit but they need to help socially and environmentally. If the company doesn`t have responsibility with the society, the people or non-government organizations (NGOs) will criticize the company. Thus, companies have to be responsible with other stakeholders and the social environment.

However, nowadays it is difficult at times for some companies to adopt a good sense of CSR because they often want to engage only in direct profitable ventures. According to Michael E. Porter and Mark R. Kramer (2003), the Strategic Philanthropist, companies can benefit by engaging in CSR activities. It will focus on the cluster and improve capability of the business but CSR should make the profit at the same time. So, companies find the best strategy for making sure that businesses have responsibility regarding social issues and make profit at the same time.

CSR is viewed as an umbrella concept, which includes corporate citizenship, corporate sustainability, stakeholder management, environmental management, business ethics and corporate social performance (Visser.W 2005). So, corporate social responsibility (CSR) is one strategy to run the business or sometimes its core business especially in big organizations.

2.1 WHY COMPANIES DOING CSR?

Some of the positive outcomes that can arise when businesses adopt a policy of social responsibility include:

1. Company benefits

- Improved financial performance;
- Lower operating costs;
- Enhanced brand image and reputation;
- Increased sales and customer loyalty;
- Greater productivity and quality;
- More ability to attract and retain employees;
- Reduced regulatory oversight;
- Access to capital;
- Workforce diversity;
- Product safety and decreased liability.

2. Benefits to the community and the general public

- Charitable contributions;
- Employee volunteer programmes;
- Corporate involvement in community education, employment and homelessness programmes;
- Product safety and quality.

3. Environmental benefits:

- Greater material recyclability;
- Better product durability and functionality;
- Greater use of renewable resources;
- Integration of environmental management tools into business plans, including life-cycle assessment and costing, environmental management standards, and eco-labelling.

2.3 STARBUCKS RESPONSIBILITY

In 2000, Starbucks started CRS. Starbucks run business by responsibility and conducting its self in the methods which are giving trust and respect from its customers and neighbors. In this way, it calls “shared planet” that means Starbucks emphasize on ethical sourcing, environmental stewardship and community involvement. Moreover under company`s operation , it also believes supporting the good workplace for partners or staffs encouraging ethical business practices and maintaining legal compliance , corporate governance and also public policy (Starbucks 2010c).

3 LITERATURE REVIEW

Starbucks has been discussed in various articles, books TV shows and many writers have an opinion about the Starbucks Company which they wish to express in one or another way. However there are only few articles and books which have taken the discussion and analysis about the famous company and quite a few of these apply this company as a case example and hence are not focussed on Starbucks alone.

It can be seen that the literature review shows an agreement in the Starbucks’ Branding strategy is emotional though some only imply this implicitly. Moreover, most of the literature is written explaining the troubles Starbucks’ has faced. All the texts have been written before the crisis of Starbucks and therefore Starbucks’ poorer performance has not been analysed. The fact is that only few authors have taken the issue of Starbucks’ lack of cultural branding up for evaluation.

Michelli (2007) describes through analysis that how Starbucks revolutionised the coffee industry and gained success worldwide. Michelli says that the company has followed five principles that have lead directly to its success. The principles are all focused on how the company differentiates itself from other coffee shops and how it creates a special coffee experience for the customer. This is done by creating a strong connection between the partners and the customer that emotionally attaches the customer to the brand.

Schultz et al., (2005), Davis& Dunn, (2002) have described the holistic approach of branding of the company. Holt (2004) and McCracken (2005) point out that the context in which the corporation exists cannot be left out of the branding process as it plays a major role in the branding. Rubin, (2008) does not consider the crisis Starbucks could face or is reflected on the danger the brand could likely be facing with the huge expansion. The former head of marketing in Starbucks, Scott Bedbury book "A New Brand World" was published in 2002. The book focuses on the branding of Starbucks and in general describes the process of branding.

Brand management theory explains failing brands with brands which do not take changes in culture, and hence consumer demands, into their consideration and thus fails to keep up with the movements in the contemporary society (McCracken 2005; 2006; Holt, 2004).

Park et al. (2006) take the brand connection to some other level and describes how attachment to a brand can be achieved.

Park et al. (2005) underline that Starbucks as good example of a brand build upon a set of visually pleasing atmospheric factors, which allow relaxation and self-indulgence.

Koehn (2001), Pendergrast (2001), and Luttinger and Dicum (2006) have written about the history and development in coffee focusing on the American market. A characteristic shared by them all is attached to how Starbucks has influenced the history and development of the US coffee market.

Koehn (2001) differentiate her approach to why Starbucks has become the brand they are today from Michelli (2007) and Bedbury (2002). She argues that Starbucks gained success and set standards by introducing a whole new concept at the right time in the American context. Koehn (2001) follows Starbucks and its success but lacks to explain, why and how the brand in the end of the day differentiates itself from their competitors.

Luttinger and Dicum (2006) is much like Koehn (2001) in their way of showing the facts and in relating Starbucks to their cultural fit into the context.

Dicum (2006) describe the success of Starbucks from a historical perspective, thus the role of Starbucks is related to the development of the coffee industry and the American culture even though it is only a small part of their description of the history of coffee.

Pendergrast (2001) exemplifies how Starbucks has used its position of being larger and financially stronger compared to the competitors to force them out of the market. Starbucks has shown a strategy of wiping out competitors by buying them out, or otherwise to employ predatory retail.

Lyons (2005) underlines that Seattle is the core identity of Starbucks marketing and that the Seattle defines where Starbucks stems from – an origin that imbues the identity of the coffee

Chain. Additionally, Lyons (2005) focuses on how Starbucks has applied product placement in its marketing efforts not only to generate increased brand awareness but also to accommodate harming critique from the media.

Rindova (in Lerpold et al. 2007) analyses the communication strategies in the specialty coffee industry in the US. These strategies are extremely important for the coffee chains as they present the company, their values, and hence how the consumers perceive them.

4 RESEARCH DESIGN

4.1 Objective

The objective of this research is to investigate how independent variable such as Net profit, Revenue, Earning per share has a relationship and impact with dependent variable CSR with the special reference of Starbucks.

4.2 Research Methodology

• Sample

The initial sample of our research was constituted by all the companies that are engaged in CSR activities that are listed on various stock exchanges in the world. After accessing their websites in order to get CSR report we found that mostly of the companies has not revealed any information regarding CSR activities and very less companies has given the information on csr activities but the complete for the last 10 years was not available. Our research is based on starbucks for a period of 12 years ranging from 2001 to 2012 our sample was quite representative due to the fact that Starbuck has grown tremendously and all credit for their growth they used to give to the society they serve through their CSR.

Methodology

In order to evaluate the CSR the Data has been collected from the annual Report that has been published by starbucks on web for the period of 12 years ranging from 2001 to 2012.the correlation model and regression model, the ordinary lest square (OLS) was used to examine the relationship between dependent variable CSR and Independent Variable net profit, Revenue and EPS for the period Ranging from 2001 to 2012.

The study tries to explore the impact of Independent variable n dependent variable value over the time using the following model.

$$Y_{it} = \alpha_i + \beta_1 X_{it} + U_{it}$$

Where Y represents dependent Variable (expense on CSR) I represent firm t represents Time α is an individual effect that can be decompose into fixed individual effect. X represent the independent variable Net profit , Revenue and EPS, β_1 represent parameter and U is the random unobserved component that reflect un absorb shocks affecting the performance of firms thus the regression model to test the Hypothesis is as follows

$$\text{Expense on CSR} = \alpha_i + \beta_1 \text{ net profit} + \beta_2 \text{ revenue} + \beta_3 \text{ EPS} + U$$

Additionally R^2 that shows the amount of dependent variable changes which are explained by Independent variable the value of R^2 is always between 0 to 1.

HYPOTHESIS

- H1- Profit has a positive impact on CSR
- H2- Revenue has a positive impact on CSR
- H3- Earning per share has a positive impact on CSR

5 REASULT AND ANALYSIS

1. CORELATION

		Total Expense on CSR	Net profit	Revenue	Eps
Total Expense on CSR	Karl Pearson	1			
	sig-(1 tailed)				
	N	12			
Net Profit	Karl Pearson	0.149	1		
	sig-(1 tailed)	0.322			
	N	12	12		
Revenue	Karl Pearson	0.225	.812**	1	
	sig-(1 tailed)	0.241	0.001		
	N	12	12	12	
EPS	Karl Pearson	0.14	.999**	.825**	1
	sig-(1 tailed)	0.332	0	0	
	N	12	12	12	12

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

The above table shows the relationship between dependent and independent variable from the above table we can analyse that correlation between net profit and CSR is 14.9% , Revenue and CSR is 22.5% and EPS and CSR is 14% which shows that all the 3 independent variable do not have any significant relation with CSR

REGRESSION ANALYSIS

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.232 ^a	.054	-.156	9.1991434	.054	.256	2	9	.780

The above table shows the summary of the regression model. The above table shows that the R square is 5.4% at a significance level of 7.8% which explains that the variables of financial performance ie net profit, revenue and EPS has only 5.4% impact on the corporate social responsibility and the rest 94.6% is due to the other factors.

6 CONCLUSIONS

So, from the above case study we conclude that the net profit, revenue and EPS has a positive impact but not much significantly on the corporate social responsibility of Starbucks and there are some other variable according to which there is a variability in the expenses of Starbucks from year to year. Overall Starbucks is Doing well in terms of Corporate Social Responsibility and they should keep on contributing to the well being of the Society.

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NEW HORIZONS IN HUMAN RESOURCE DEVELOPMENT**Sunaina Kuknor**Assistant Professor, Symbiosis Institute of Business Management, Pune

ABSTRACT

This is the age of technological advancements and innovations and now it is pretty clear that businesses are changing constantly on a day to day basis. Hence the same have resulted in enhancements of quality, customization, meeting the needs with superior speed and above all betting the competition. Even today the entire processes and practices are revolving around the very important "CUSTOMER".

The above factors have led to paradigm shifts in the area of HRD. The new and changed face of HR is adopted by all the organizations and managers irrespective of their domain. With globalization and liberalization it becomes a necessity for the HR department to mould itself and act as a strategic partner in serving the objective of the businesses.

HR today has moved way beyond the basics of mere hiring and reached a level whereby it can identify the core competencies of the human assets. HRD will surely be a misfit if it only limits itself to training in a traditional style but whereas the stage is set to enhance the Intelligent Quotient and Emotional Quotient of the personnel at various levels. The rediscovery of Human Resource Development has led to emergence of new practices like HR Matrix, Dual Career Groups, Right Sizing, Flexi-time and Contemporary HR Practices. The objective of our study focuses on the enumerated areas in the stated subject:

- 1) *The Upcoming Developments in the area of Human Resource Development*
- 2) *Human Resource Management as a Strategic Management Tool*
- 3) *Innovations in HR Practices;*
 - *HRM and Ethics*
 - *Employee Branding*
 - *E – Human Resource*
 - *Balance Scorecard*
 - *HR Re-engineering*
 - *Six Sigma in HR*

Keywords: E-HRM, Human resource development, HR dimension, Innovation, SHRM

INTRODUCTION

This is the age of technological advancements and innovations and now it is pretty clear that businesses are changing constantly on a day to day basis. Hence the same have resulted in enhancements of quality, customization, meeting the needs with superior speed and above all betting the competition. Even today the entire processes and practices are revolving around the very important "CUSTOMER".

The above factors have led to paradigm shifts in the area of HRD. The new and changed face of HR is adopted by all the organizations and managers irrespective of their domain. With globalization and liberalization it becomes a necessity for the HR department to mould itself and act as a strategic partner in serving the objective of the businesses.

With the increase in competition, locally or globally the firms must be keen in adapting the changed environment. HR professionals are evolving by implementing the best practices and succeed to be a change initiator within the firms.

HR today has moved way beyond the basics of mere hiring and reached a level whereby it can identify the core competencies of the human assets. HRD will surely be a misfit if it only limits itself to training in a traditional style but whereas the stage is set to enhance the Intelligent Quotient and Emotional Quotient of the personnel at various levels. The rediscovery of Human Resource Development has led to emergence of new practices like HR Matrix, Dual Career Groups, Right Sizing, Flexi-time and Contemporary HR Practices.

NEW DIMENSION TO HUMAN RESOURCE DEVELOPMENT

Of late the corporate world has witnessed cyclical developments. As a result a people skill becomes a pre requisite in any area of work. As the paper continues we will touch upon various upcoming developments in the area of human resource development.

What began first to be called as Personnel management which further moved on to be recognized as Human resource management which in the present scenario is known as Human resource development. People today are not only treated as employees or resources but have been recognized as the key contributors and assets to an organizations success. The definition of an HR department is preety much transited from mere staffing and recruitment functions to key decision makers and setiing up best strategic practices in a company.

THE NEW DIMENSIONAL HR FRAMEWORK



Let us enumerate on the latest developments that have taken place in the HR stream recently.

ETHICS AND HRM

Ethics is the discipline dealing with what is good and bad and with moral duty and obligation. Ethics are the inner compass (Self) that directs a person toward what is right and fair. Only if a person has an inner ethical compass can he or she be sure that leadership qualities will not turn to evil ends. Ethics and HRM go hand in hand. How? Let us explain the same. There is an emergence in the normative philosophy combined with all hard ethical decisions between economic in case of business and social performance in case of individuals.

With the advent of **Utilitarianism** which states about the behavior based on principles of rules that promote the greatest utility rather than on an examination of each situation (greatest good for greatest number of people) and the concept of **Deontology** that focuses on the preservation of individual rights with a particular behavior rather than consequences, HR professional today have applied this universal thought processes in their people resource.

Ethical issues that can be brought forward in reference to the HRD functions are:

- Performance Appraisal
- Training and development
- Career planning and development
- Employee turnover

HR BALANCE SCORECARD

Human brain – the greatest creation of nature, has got an infinite energy to think and act. Human resource is considered to be the centre of all developmental process of economy. The concept of HR balance scorecard way back in 1996 was developed by Robert Kaplan and David Norton. This tool was in sink with MBO (Management by objectives) which clearly means a “Performance planning and Measurement framework”. It aims to drive strategy execution, linkages of budget to strategies, align organization with strategy, periodic strategic performance reviews to focus on improved strategy.

E – HUMAN RESOURCE

With the world going technology friendly, people management is moving the same track. Application of information technology in HR functions and practices can be termed as E- HRM. There are three stages of E-HRM namely Operational, Relational and Transformational. Operational E-HRM includes functions as payroll and employee personal data. Relational E-HRM is concerned with supporting business processes by means of training, recruitment and performance management. Transformational E-HRM is concerned with strategic HR activities such as knowledge management, strategic re-orientation.

HR RE- ENGINEERING

HR issues are a pivotal to the re engineering of business processes. Through re engineering the managers create an environment and culture that resists change. To witness this there were enough changes adopted in job analysis, selection, training and development, performance management and various other HR functions. Lately the organizations have understood and productively implemented these changes by means of BPR. It involves fundamental re thinking and monitoring the organization processes. There has been emergence in new concepts like HR and six sigma, TQM in HR, HR and Kaizen which have lead to improvisation of the quality of work and employees.

COMPETENCY MAPPING

This is the process of identification, evaluation of employees competencies and organizational requirements so as to successfully establish the perfect collaboration based on the changing environments both internal as well as external. This concept has gained a lot of popularity in recent times as it contributes to the various areas like aligning competencies and strategies, recruitment of employees on the basis of job and culture fit, planning for career and succession, align personal goals of employees to organizational goals.

HR AND OUTSOURCING

It is commonly understood as the permanent contracting out of activities that were previously performed in-house. Outsourcing is successful and now becomes an requirement because of the expertise and efficient completion of tasks and the best toll in cutting the costs.

Here are few of the types of HR Outsourcing:

- Professional Employer Organization: This takes the full responsibility as a co-worker of the company's employees having the final authority right from hiring till the employees exit the company.
- Application Service Providers: ASP is the host software on the web which manages payroll compensation performance etc.
- E-Services: These are usually web based.

FLEXI-TIME AND FLEXIBLE COMPENSATION

In this concept employees are given the freedom to choose their own start and stop working hours within specified time limits. Compressed work weeks are also gaining momentum wherein there is an option to either work 6 days a week or 40 hours work week suitable to accommodate employees lifestyle.

Flexi-Compensation: This permits employees to select the compensation structure and how the various fringe benefits are to be allocated with the said percentages. An adoption of these has increased job satisfaction, productivity, and reduced attrition. Looking at the success in the western countries slowly India has also initiated in adopting these new trends.

GAIN SHARING

This latest trend has come into existence by the way of brainstorming. Here a group of participants are chosen for the sessions to bring out business plans, strategies and problem solving techniques. The most attainable and reasonable ideas/suggestion receives an incremental economic gain shared among the employees and company. The main objective is employees involvement, participation and identification of the best and upcoming potential talents.

DIVERSITY MENTORING PROGRAMS

Diversity in workforce has made HR managers today choose the cultural perspective in handling people. This makes it increasingly important for the mentors to adopt a strategy of choosing the best way out of variety of workforce. Coaching and feedback is given to employees from different departments in the same company. This encourages employees to think beyond their cultural frame and take full advantage of the diverse population.

CONCLUSION

The sweeping winds of change have already invaded business world and the quality of people and their engagement will be critical factors in corporate vitality and survival. The war of talent is fierce which is likely to become more so in the near future. It becomes at most necessary to develop full potential of the people that is they should be provided with the right knowledge, skills and attitude with the development of strong culture, focus on quality and value based competition.

HR professionals need to be encouraged to see themselves as lifelong learners in multi faceted technology environment and foster a culture that encourages individuals to exercise leadership and strengths to face the competition. Today the role of the HR manager must parallel the needs of the organizations. The corporate today are becoming more adaptable, resilient and quick to change directions and are also customer focused, thus the role of the HR manager will be balancing the situations so that there will a win-win scenario.

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IMPLEMENTATION OF IFRS IN INDIAN BANKING INDUSTRY: A CRITICAL EXAMINATION**Dr. B. Neeraja¹, Arti Chandani² and Dr. Mita Mehta³**Associate Professor¹, Dr. MGR University, ChennaiAssistant Professor² & Associate Professor³, Symbiosis International University, Pune**ABSTRACT**

Change is constant and here we are to experience change in the language of business. Accounting, popularly known as the medium of communication to the outside world, is also not permanent. The change winds which impacted the businesses, products, services and operations across the globe have swept the global economies. The next thing to get affected by these changes is the accounting. The businesses were comfortable in using the procedures and policies for reported their business's performance in the manner which was stipulated by the host country however this has led to a situation where the investors are not able to comprehend the accounting information to a uniform standard.

IFRS (International Financial Reporting Standards) aims to bring the uniformity in the reporting of the business's' performances across globe to help the investors and various stakeholders to decode the data and information provided in the in the balance sheet and the income statement of these businesses.

The banking industry is one of the core industries of any economy and is more important for a country like India. The implementation of IFRS in India is going to be there in next few years. The present study focuses some of the important aspects of the IFRS which will have an impact on the banking industry in India. The paper also gives the detail analysis of the proposed IFRS in the banks and how it will improve the reporting statements of the banks. The paper also touches on the challenges which might come on its way of the implementation of the IFRS.

Keywords: IFRS, Banking Industry, IND-AS, Disclosures

1.0 INTRODUCTION

“I propose for adoption of the new Indian Accounting Standards (Ind AS) by the Indian companies from the financial year 2015-16 voluntarily and from the financial year 2016-17 on a mandatory basis. Based on the international consensus, the regulators will separately notify the date of implementation of AS Ind for the Banks, Insurance companies etc.”

Mr. Arun Jaitley, Finance Minister, July 2014: The announcement by the finance minister in the budget speech is of paramount importance for the business in India. This also highlights the importance of the fact that the companies need to gear up to embrace a new reporting system compulsorily from FY 2016-17 which is bound to have effect on many items of the accounts but majorly on the reported profits.

With the convergence of the IFRS India would join the league of 100 nations which are in the process of implementation of IFRS.

1.1 INDIAN BANKING INDUSTRY

The Indian banking industry comprises banks as public sector, private sector and foreign banks. The banking industry also includes cooperative banks, regional rural banks and development banks. These banks are the backbone of the economy being the support system of the industry and business. The banking industry has seen a sea change in the last 2 decades where the foreign banks have set up, Indian banks have crossed borders and the foreign investors have invested heavily in the Indian banks. This gives the landscape of the banking industry. Recently Reserve Bank of India (RBI) the apex body gave 2 new licenses for the banks to be opened up. We may expect few more banks coming up in the future making the industry a competitive one.

The size of banking assets in India totalled US\$ 1.8 trillion in FY 13 and is expected to touch US\$ 28.5 trillion in FY 25. Bank deposits have grown at a compound annual growth rate (CAGR) of 21.2 per cent over FY 06-13. In FY 13, total deposits were US\$ 1,274.3 billion.

In FY 14, private sector lenders experienced significant growth in credit cards and personal loan businesses. ICICI Bank saw 141.6 per cent growth in personal loan disbursement in FY 14, as per a report by Emkay Global Financial Services. The bank also experienced healthy growth of 20.8 per cent in credit card dues, according to the report. Axis Bank's personal loan business also grew 49.8 per cent, with its credit card business expanding by 31.1 per cent.

1.2 MEANING

IFRS stands for International Financial reporting standards. These IFRS are the accounting standards which have been developed by IASB which is a permanent body having 12 members. This is funded by various countries including India. Any accounting standard which passes out of IASB does not become important by a mere fact that it has been developed by the IASB but it is due to the rigor process which is involved not only in developing the standard but also in the implementing of the standard. The standards which have been recommended have been verified by the professionals and accounts & its implementation and impact has been analyzed and agreed upon.

1.3 CONVERGENCE

The convergence these standards would mean a lot to the banking industry which is regulated by RBI in India. The impact of the implementation of IFRS on banking industry would be more profound as banks deal with public money and are subject to the various control and statutory measures stipulated by the regulators. The implementation would necessary affect the capital adequacy ratios and Non-performing assets and its provision among others of the banks. It will also affect the disclosure made by the public with respect to the risk. Banks are exposed to the various types of risk namely, credit risk, liquidity risk, interest rate risk, market risk etc. The exposure of these risks will be quantified as per the convergence and the resultant disclosure.

1.4 NEED OF IFRS

The change in the business and organizations coupled with cross border transactions necessitated the need of a system which was comparable across globe with respect to the reporting of the financial information of the corporates. The international accounting standard board (IASB) was formed in the year 2002 with an objective to have the uniform standard of accounting across globs. There are more than 100 nations which are the member of IASB including India.

The IASB has adopted 41 standards which were in vogue in the form of the International accounting standards committee and has issued 9 more standards which are IFRS. All these standards are available to the nations which can apply these in their countries either in the form of full adopting or in the form of convergence. India has chosen the adoption of these rules by way of convergence where these rules will be merged with accounting standards. This is known as "Indian Accounting standard (Ind-AS).

In the present world, where the business are breaching boundaries and becoming global it is important to have the reporting structure which meets the needs of stakeholders which are across the globe. There might be an investor from Belgium who have done investment in the a company listed on Tokyo stock exchange, it would be extremely difficult for the investor to fully understand the financial statement as reporting in these statement may differ from his home (Belgium) country to the country of investment (Japan). Implementation of the IFRS would mean a common reporting and the resultant impact is common understanding for all the stakeholders.

2.0 REVIEW OF LITERATURE

The banking industry has always been an area of interest to the researchers. The primary reason for the same being is the integral part of the system and the economy. The banks are subject to the public scrutiny as they deal with the public money. It is expected that with the implementation of the IFRS the reporting quality of the banks should improve and will help the investors and the various stakeholders. Some of the important researchers in the areas of banking and IFRS are listed below:

Firoz, Ansari and Akhtar (2011) in a research study titled, "IFRS-Impact on Indian banking Industry" studied the impact of the various provisions of the IFRS and the corresponding accounting standards. They did a detailed analysis of those provisions of IFRS and the benefits which those provision are expected to bring to the reporting mechanism of the Indian banks.

Jain (2011) in a study titled, "IFRS implementation in India: Opportunities and challenges" did a research on the readiness of the India for the implementation of the IFRS. He explained in detail the various challenges being faced by the corporates which would pose a problem in the implementation of the IFRS. These challenges were changes in the law, lack of awareness, taxation and the use of the fair value. He also suggested various methods to overcome these challenge which will pave the way for the easy implementation of the IFRS.

Mehta, Neeraja and Chandani (2014) wrote a research paper "Women CEOs and performance of banks: An empirical research of Indian private sector banks". They emphasised the banks are the critical part of the system and help in the overall development of the economy. They used the CAMEL Model to gauge the efficiency of the selected private banks and compared with the predecessor CEOs.

3.0 THE IMPACT OF IFRS ON THE INDIAN BANKING INDUSTRY

The banks in India follow the GAAP issued by ICAI in addition to the various norms issued by the Apex bank. The Indian banks are subject to the reporting and provisioning laid by the RBI. The RBI has laid the guidelines for the losses of loan and the investments made by the banks.

Though each country to free is decide as to when to move towards the implementation of IFRS, earlier the better as the businesses will be able to compare its performance vis-a vis competitors if they have a uniform reporting mechanism, which will be provided by the IFRS. The banks will be able to attract more investment if the quality of reporting is improved. The banks have loans and the collateral. These loans and collateral have a long life and how these are reported in the balance sheet and income statement will affect the profitability of these banks. In addition to this, banks also face various types of risks such as interest rate risk, credit risk, and liquidity risk. The banks use various hedging instruments to minimise these risks. IFRS also spells out the way in which these hedging instruments are reported in the various statements of the banks.

The researchers have studies and discussed some of the important aspects of the IFRS implementation in the banks in India and these are listed below:-

4.1 CLASSIFICATION OF FINANCIAL ASSETS

IFRS 9 relates to the financial instruments: recognition and measurement. This is going to replace IAS 39 and the same has been notified by IASB in July 2014. This is a three phase process whereby the first phase deals with the classification and measurement of the financial assets and financial liabilities. This classification of financial assets is driven by cash flow characteristics and the business model in which the assets are held. The objective of this is to remove the ambiguity and complexity associated with the previous accounting standards. The second phase deals with the impairments which necessary means as soon as the credit loss is expected, it is to be reported. Moreover it also expect the banks to account for the expected credit losses from the time when the financial instruments are first recognized and this will help the banks to sustain the full expected losses. The third and final phase deals with Hedge accounting which deals with hedge instruments and items. This primary deals with the disclosure related to the risk management with an objective to increase the transparency for the benefit of stakeholders.

4.2 INVESTMENT

The investment made by the banks are presently shown at “amortized cost” while with the implementation of the IFRS, these investments would have to be shown at “fair value”. The “amortized cost” can be used to show the loans given by the banks provided these loans do not offer exotic derivatives from the traditional loans. There are some loans such as loans with convertible options, non-recourse loans cannot fit into the ambit of the amortized cost and will have to be shown at fair value. The investment made by the banks in the equity would also be required to be shown at fair value with the recognition of the profit and loss.

4.3 DISCLOSURES

The IFRS 7 deals with the disclosure requirement of the banks. The IFRS mandates a systematic way of disclosure for ensuring the transparency and for the good of the various stakeholders. These disclosures will range from the adoption of the various valuation techniques, disclosure on the various types of risks faced by the banks. This requires that the balances sheet and income statement to have the disclosure arranged in the category. This also stipulates the disclosures related to the fair values of the various collateral held by the banks which are used by these banks for minimizing the credit risk. The list of the disclosure as per the IFRS is quite exhaustive which is basically to enhance the transparency of the banks and will have the impact on the balance sheet as well as on the income of the banks. The disclosure may range from the risk management to accounting policy to hedge accounting to name a few. It also deals with the quantitative and qualitative risk disclosures.

4.4 DERIVATIVES AND HEDGE ACCOUNTING

Derivatives are the financial instrument whose value is derived from the underlying assets. The derivatives are measured and shown at the fair market value. The fair market value is the value at which the asset can be bought and sold but this does not include the transaction costs. We live in the real world where the transaction costs do occur and it would not be prudent to ignore something which is very much there. The IFRS takes cognizance of the very existence of the transaction costs and defines the fair market value ‘as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. This section of IFRS deals with the details of the market participants and the measurement date. The credit risk is universal in the case of banking industry and the credit risk is managed with the help of credit derivatives and the disclosure of those will undoubtedly improve the disclosures of the banks.

The IFRS 9 also deals with the hedge accounting where the objective is to align the hedge accounting with the risk management strategies which will require each bank to update the risk management policies continuously. With the implementation of this, it is expected that the underestimated risk exposure which were not reported on the balance sheet and income statement, will find a place there and will in turn affect the investor.

5.0 CHALLENGES IN THE IMPLEMENTING OF IFRS

The banks will have to go for the implementation of the IFRS by 2016-17 compulsorily while these banks have the choice to go for it on voluntary basis as of now. The pertinent question here is that are the Indian banks ready for the adoption of the new reporting structure? If yes, then, what are the changes required in the present system to make it happen. If no, then, how can we go for the same?

The researchers have studied the various challenges which the banks will be facing while going for the IFRS. The challenges range from the technology to the human resources to the monetary resources of the banks which will have the impact. The important and noteworthy challenges are mentioned here, and discussed below:

5.1 Infrastructure

The implementing of the IFRS in the banking sector will affect the infrastructure requirement of those banks. The infrastructure requirement may be in the form of the new set-up of the computers, new software to take care of the change in the reporting system. The change in the infrastructure will also affect the capital and financial requirement of these banks.

5.2 Control by Apex Banks

The banks in India are subject to the rigid and strict surveillance by the apex banks. The regulator has laid the various control mechanism with respect to the investment, loans, risk among others. The regulators itself will have to upgrade to a new system in order to ensure the proper monitoring of these banks. The way in which the capital adequacy ratios are calculated, will also be required to change.

5.3 Taxation

With the implementing of IFRS, the taxable income and recognition of the income of the banks will change. It may require some changes or addition to the existing law of taxations. It would also be required that the new law recognizes the IFRS statement of the banks and for that the tax authorities will have to arrange for the training of the employees of the department.

5.4 Training

The IFRS will also necessitate the training of the staff and employees of the banks so that they fully understand the shift from the existing reporting system to the new systems. This will add a huge financial burden on the banks as they will have to pay for the training costs. The banks will have to make themselves ready for the losses or error which will take place in the initial time period of the implementation of the IFRS.

5.5 Reporting system

The internal reporting systems of the banks will also be required to go through a change. All this will lead to a sea level change in the banking industry and the people with growing age will find it tough to handle a complete overhaul in the systems.

5.6 Fair value

The IFRS emphasizes the reporting of the assets on the basis of fair value instead of the historical value. The banks will have to make the policies for the fair value and will have to ensure that these are understood in the right spirit by all the users. The staff and employees will also be required to understand the fair value will keep on changing on the continuous basis and this will have to be incorporated in the balance sheet and the income statement of the banks.

6.0 CONCLUSION

The regulators have made their intentions clear for convergence of the IFRS and given the timeline for the business to go for the same. This will make the business more transparent and will improve the reporting quality thus making it par at international standards. The corporate governance is another form of monitoring the performance of the businesses

The implementation of the IFRS in the banking sector may result in the higher loan losses which will adversely affect the capital adequacy ratios. Some of the IFRS rule work on the principles of judgment where the policy to be followed is to be analyzed on case to case to basis, while our present system does not allow room for the subjective judgment and there are various classes defined and all needs to fit into that.

The implementation of IFRS into the banking industry will also affect the infrastructure requirement, financial requirement, changes in the existing law and rules. All this will require some time and the parties involved fully understanding and adapting these changes. The implementation is expected to bring the benefits to not only to all the investors but also to the various stakeholders as it will make the balance sheet and the income statements of the banks crystal clear.

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ANDROID BASED IDENTIFICATION OF NEAREST HOSPITALS, BLOOD BANKS AND DONORS**M. Anandhi, D. Gayathri and A. Subba Rayudu**

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ABSTRACT

In emergency situations the only thing was searching the nearest hospital based on generic purpose only. And hence our new proposed system aims at the search for nearest and most apt hospital as per their need. The admin will manage all forms of details and hospital management using effective cloud computing technique. As an additional feature it also tracks blood banks as a part of the project, along with the system will be extracting individual blood donors and also filters the donor's blood group and time period respectively. And also the application will provide various other options to search for x-ray, scan. This can be very helpful during the emergency conditions for the patients as it specifically targets their need and also it is effectively manageable.

Keywords— Network; cloud computing; android application(Blood bank).

I. INTRODUCTION

An application can be used to search the nearest hospitals for emergency patients which is much faster and provide accurate results. So our main aim is to develop android application taking “Medical Emergency” into mind.

A. User Groups

This application developed by health conscious personnel. By using our system the client will deal with emergency he/she is facing.

B. Client side

1. Graphical User Interface is used for filling personal and medical information on cloud.
2. The user will register their blood details using effective cloud computing techniques.
3. It is also useful for tracking like Blood banks and X-rays, Scans.

C. Server side

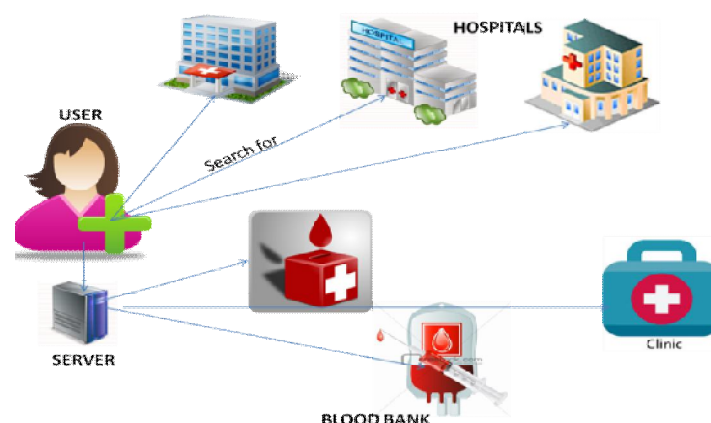
1. Server gets activated and searching for nearest hospitals, Blood bank and scan after accepting the request by client.
2. The location of patient is tracked.
3. Coordinates and type of emergency is fetched from client.
4. All hospital information is added into database which is present on cloud and update it regularly.

II. OBJECTIVE

The main objective of this application is to provide quick emergency service to the patient in case of emergency independent of his/her location and in a click of a button as well as, it also provide all health related information including medicinal prescription. And also it provides blood bank details, individual blood donor details, etc.

III. ARCHITECTURE

The architecture diagram for this project can be given as stated below along with their modules:



A. Administrator

An android mobile client is an application that access a service made available by a server. Form the back end application the administrator will upload all the details relevant to blood bank, blood groups available currently and store it in the cloud server using web services from the desktop application. The hospitals will have access to search for available blood group and send an request for particular blood group from android application.

B. Blood group suggestion

The android application will have facility to search the blood by proving either their blood group name. If they found any blood group available they can send a request SMS (Short Messaging Service) to the particular blood bank or hospitals which is nearer by. They don't found any particular blood group, alternative suggestions will be provided to the end user.

C. Mapping with last donated date

If the user is willing to donate his blood through this methodology we easily identify the last donated date and we come to conclusion wheather the person can give blood or not.

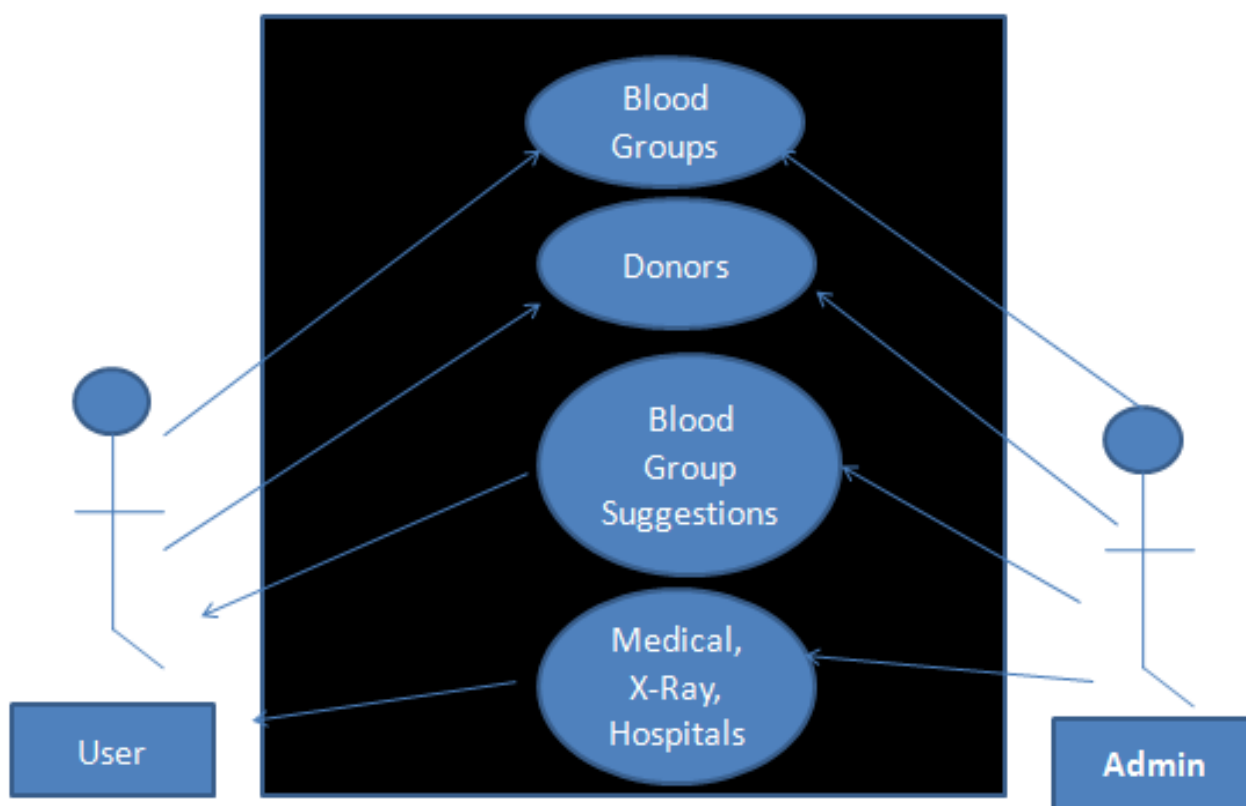
D. Servicing

The data's will be stored in cloud server. The patient after knowing the health condition he may search to find out the nearest hospital, lab, etc. The application gives open option to use all those facilities in the application itself.

IV. PROPOSED SYSTEM

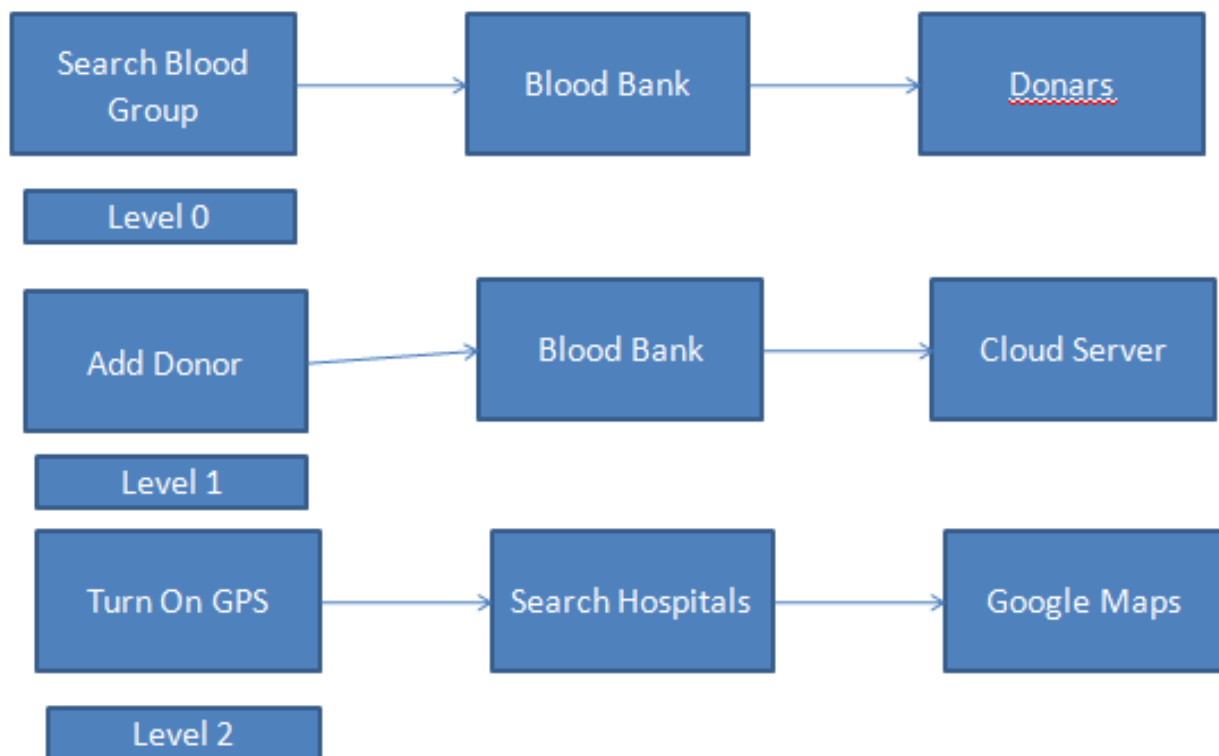
In this system the user can search the nearest hospital as per specific domain and their need. The admin will manage all details of hospital management. This system is also used to track the blood bank. In the modification part of the project, apart from extraction of blood bank data, it maintains individual blood donors details, X-ray, scan details also.

V. USECASE DIAGRAM



VI. DATAFLOW DIAGRAM

The data flow of this project will be going through the process of three levels from level-0 to level 2. Each classified depending upon their functionalities and characteristics. The level 0 for searching blood for donors based on their groups. And level 1 for storing them in blood banks and level 2 for searching the nearest hospitals relatively depending on the user requirements.



VII. DATABASE DESIGN

BANK

Field Name	Data Type	Description
<u>bank_id</u>	Int(5)	Blood Bank Id
<u>blood_type_id</u>	Int(5)	Blood Type Id
<u>blood_bank_id</u>	Int(5)	Blood Bank Id
<u>bank_availability</u>	varchar(256)	Blood Group Availability
<u>Created_by</u>	varchar(10)	Admin Id
<u>Created_date</u>	date	Date

BLOOD BANKS

Field Name	Data Type	Description
<u>Blood_bank_id</u>	int(5)	Blood Bank Id
<u>Blood_bank_name</u>	varchar(256)	Blood Bank Name
<u>Blood_bank_address</u>	varchar(500)	Blood Bank Address
<u>Blood_bank_phone</u>	varchar(14)	Blood Bank Phone
<u>Created_By</u>	varchar(20)	Admin Id
<u>Created Date</u>	Date	Date

BLOOD TYPE

Field Name	Field Name	Data Type
<u>blood_type_id</u>		Blood Type Id
<u>blood_type_name</u>	<u>varchar(14)</u>	Blood Type Name
<u>Created_by</u>	<u>varchar(20)</u>	Admin Id
<u>Created_date</u>	Date	Date

This shows the database blood groups stored in an assorted table.

CONCLUSION

Through this project we will be able to not only detect the nearest hospitals. But also we can be able to detect the hospitals which are most suitable for the user at that condition such as cardiology hospital for heart attack, x-ray facilitated hospital for fractures, etc. Along with this, it will also enable us to store the blood groups accordingly and retrieve whenever we need. And also these blood stored will be screened and disposed automatically within the stipulated time of three months.

ACKNOWLEDGMENT

We together express our sincere thanks and gratitude to our department, and especially to Mr. Subba Rayudu, who helped and have guided us to do our project. We also express our sincerest gratitude to Dr. S. Padmapriya, for supporting in doing the project in a successful manner.

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AN EMPIRICAL STUDY ON ISSUES AND CHALLENGES OF FINANCING FACED BY SME'S WITH REFERENCE TO SPORTS GOODS INDUSTRIES IN MEERUT DISTRICT, U.P INDIA

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ABSTRACT

Small and Medium Enterprises (SMEs) plays a crucial role in any developing economy. In Meerut about 40 percent of the SMEs are the source of employment. Although there is an increase in the SMEs but there are also numerous challenges associated with the growth, this research paper explores the specific challenges encountered by the SME's in financing and developing. In this study simple random sampling was adopted with the data sample size of 82 SME's, the data was collected with the help of structured questionnaire. The data is analyzed by using Chi- Squire Test and represented through graphs & tables. It was found that the majority of SMEs face challenges in the form of financing, results show different kinds of issues and challenges faced by SME's in financing, i.e. availability of credit is moderately difficult. SME's are also facing problems due to delay in the delivery of the loans by commercial banks. Growth of SME's is adversely affected by scarcity of suitable technology, infrastructure and availability of low cost labour.

Keywords: Financing challenges, Development, Credit and SME's

INTRODUCTION

Post globalization SMEs are exposed to greater opportunities than ever for expansion and diversification across the sectors. Indian market is growing rapidly and Indian entrepreneurs are making remarkable progress in various industries like Manufacturing, Food Processing, Textile & Garments, Retail, IT and Service sector. The small enterprise sector has continued to contribute immensely in creating large scale job opportunities across space and, in the process, helped reduce inter-regional and rural-urban disparities in growth. Certain products in this sector have also been consistently figuring in the export basket during the recent decades, although the export performance in the global market has been unimpressive and the level of threat has also enlarged.

An increasing emphasis upon external orientation, competitiveness and networking with agencies within and beyond the sector and nation seemed to have been the bedrock of current policy paradigm; the recent policy framework corroborates this notable shift in focus. It may, however, be pointed out at this stage that till as late as October 2006, by when the Micro, Small and Medium Enterprises Development (MSME) Act came to be legislated, the 'medium' category never had been formally defined; although, especially, in certain sub-sectors and regions many dynamic small enterprises had been operating at a much higher level of investment in plant and machinery and market reach. The exact trend in India can be seen from the following table:

MSME Act-2006

Particular	Manufacturing (investment in P&M)	Services (investment in equipment)
Micro enterprise	Up to 25 Lakh	Up to 10 Lakh
Small enterprise	Above 25 Lakh & up to 5 Crore	Above 25 Lakh & up to 2 crore
Medium enterprise	Above 5 Crore up to 10 Crore	Above 2 Crore & up to 5 Crore

Source: <http://dcmsme.gov.in> 15

*The SME sector has been contributing significantly to the manufacturing output, employment and export. Between 2003-2004 & 2007-2008 the SME sector registered average annual growth in the number of units & employment of around 4.1% & 4% respectively. SMEs always represented the model of socio-economic policies of Government of India which emphasized judicious use of foreign exchange for import of capital goods and inputs; Labour

*Economic survey 2008-2009

Intensive mode of production & employment generation. SMEs developed in a manner, which made it possible for them to achieve the following objectives such as high contribution to domestic production, significant export earning, low investment requirements, operational flexibility, Location wise mobility, low intensive imports, import substitution, technology – oriented industries, competitiveness in domestic and export markets. The SME sector is likely to generate one million jobs every year and will play a crucial role in garnering

demographic dividends, creating additional jobs for millions of skilled and unskilled workers and facing the challenges of globalization. The SME sector has established true Indian entrepreneurship and some of the biggest names in India Inc have their roots in the sector

- SME units in India are being funded by foreign and local fund providers.
- The advancement in technology has also contributed highly to the SME sector. There are numerous business directories and trade portals available online that contains a rich database of manufacturers, sellers and buyers
- To start and maintain these units, minimal investment is required.
- These SME units are now being funded by many government and private banks.
- The SME sector is one of the greatest contributors of domestic production as well as the export earnings. Many major mergers have taken place recently.
- Though the sector is flourishing and expected to grow further in the near future, there are however certain challenges that the SME sector will have to face.
- Though the SME industries are spread all over the urban areas, proper infrastructure needs to be developed in the rural areas to establish these industries there.
- The SME units are functioning efficiently and effectively, but even now there is lack of information regarding the inputs of these industries, like the raw materials, skills, machinery and equipment.
- There is need of high level research and development required to develop these sectors in both the urban and rural areas.

The SME sector is almost at the initial stage of its growth. With further advancements in technology, this sector is likely to grow further and contribute greatly to the economy of India. Though SMEs are being touted as the priority sector within the economy, they continue to face problems pertaining to finance. When it comes to banks, they have a very traditional way of lending to this segment against collateral and SMEs end up being under financed. Evidently, the biggest challenge before the SMEs today is to have access to non debt based and non-traditional financial products such as external commercial borrowings, private equity, factoring etc. Micro, small and medium enterprises (MSMEs) play a crucial role in the development of emerging and developed economies. In India, MSMEs contribute immensely to the economy in terms of output, exports and employment and thus have strategic significance. MSMEs account for nearly 45% of India's manufacturing output and more than 30% of total exports and provide employment to nearly 65.9 mn people, second to agriculture. With close to around 28.5 mn units in the sector, it is a driving force for long-term growth of the Indian economy.

OBJECTIVES OF THE STUDY

To make a systematic and targeted investigation, we have identified the following objectives of this study:

1. To identify the problems of sports goods SME's in raising funds from banks.
2. To assess the suitability of different sources of financing for SME's and their impact on overall growth and development of the sector.
3. To examine the major causes due to which growth of SME's is adversely affected.
4. To investigate the alternative sources of funds for SME's in the sports goods industries.

REVIEW OF RELATED LITERATURE (ANALYSIS & INTERPRETATION OF LITERATURE)

This chapter shows the past research work related to the topic which has been conducted both at national and international level. References have been enlisted at the end of the chapter.

Chung-Hua Shen, Haumin Chu, and Yu-Chun Wangv (Jul 2012) Who Furls the Umbrella on Rainy Days? The Role of Bank Ownership Type and Bank Size in SME

They have Investigated changes during the three recent recessions in the granting of loans to small and medium-size enterprises (SMEs) by privately owned banks (POBs), government-owned banks (GOBs), and foreign owned banks (FOBs). The effects of bank size on SME lending are also examined. The behaviour of cutting lending during the recession is referred to as "furling the umbrella on rainy days." The behaviour is found for FOBs during the last recession (covering the subprime crisis) but not for GOBs and POBs. On the contrary, GOBs even significantly increased SME lending during the crisis period. Finally, large banks make more SME loans than do small banks in both tranquil and crisis times in this study. In most countries, financing to small

and medium-size enterprises (SMEs) is important because SMEs provide more than two-thirds of employment (see. e.g., Beck et al. 2005; Berger et al. 2004). In the literature, studies typically compare the lending behaviour of foreign-owned banks (FOBs) and privately owned banks (POBs) during a crisis.

Pietro Calice, Victor M. Chando and Sofiane Sekioua (2012) found in a research paper on ‘**Bank Financing to Small and Medium Enterprises in East Africa: Findings of a Survey In Kenya, Tanzania, Uganda and Zambia**’ that the SME segment is a strategic priority for the banks in the region. SMEs are considered a profitable business prospect and provide an important opportunity for cross-selling. Banks consider that the SME lending market is large, not saturated and with a very positive outlook. A number of obstacles are, however, constraining banks’ further engagement with the SME segment, including SME-related factors, macroeconomic factors, business regulation, and the legal and contractual environment, the lack of a more proactive government attitude towards the segment, some areas of prudential regulation and some bank-specific factors.

SIDBI Chief Sushil Muhnot, SME WORLD, and Feb 2012- MSMEs Sector's Growth at 11% A Challenge for Policy Makers:

MSMEs are witnessing a paradigm shift from comparative to competitive era. Time is ripe for entrepreneurs in Indian MSME sector to embrace management-oriented business strategies for overall growth, as stated by S. Muhnot, Chairman & Managing Director, Small Industries Development Bank of India (SIDBI). In an interview with SME WORLD, the SIDBI Chief divulged on the bank's strategic plans for the MSME sector with thrust on inclusive growth. “MSMEs have exhibited inherent resilience, vibrancy and entrepreneurial zeal even during global slowdown. It is crucial to attend to their access to finance and non-financial services” he said. On micro finance sector in India he mentioned that “SIDBI is rising to the occasion to focus on the 'missing middle' for enabling micro finance entrepreneurs to rise up the value chain. With 'feet on field' and having sense of pulse of the sector, SIDBI is geared up to attend the crucial aspects with responsiveness

Neil Moore (2012) English professional football clubs: Can business parameters of small and medium-sized enterprises be applied:

In the last two decades sports studies and sports management journals have called for there to be research in sports management that explores sports links to mainstream management analyses. This paper argues that in many ways the sports sector is dominated by small and medium sized enterprises (SMEs), which have a different dynamic to larger entities and therefore should be analyzed accordingly. This paper applies an SME perspective on English professional football club. The main findings are : 1) The sports industry can be regarded as one that is largely constituted of elements that are ascribed with characteristics associated with small and medium sized business (SMEs) called archetypal SMEs, either in entity size, turnover or mentality; 2) Much analysis of the administration and management of the sports industry fails to assess the sector through the prism of SME ‘modelling’; 3) There are areas of engagement with SME literature that could be useful to the analysis of the management of the sports industry.

Govinda Sharma (2011) do SMEs need to strategize? – The study is prompted by the fact that most SMEs may not have the wherewithal or the willingness to devote time and resources to strategy formulation but are focused to reconsider this position by the pressures of globalization. And Findings – SMEs need strategy but the strategy depends on the complexity of the process. The case study points to the need for top management support and commitment. This paper attempts at filling research gaps on competitive strategies for SMEs

Jun Su, Yuefan Sun (2011) Informal finance, trade credit and private firm performance; The purpose of this paper is empirically tests the promoting effects of informal finance and trade credit on the performance of private firms in China. Finding- Informal finance and trade credit have positive effects on private firms' performance

Prof Björn Berggren, Lars Silver found in a Research paper in 2011 on “Financing entrepreneurship in different regions: The failure to decentralise financing to regional centres in Sweden. The purpose of the paper is to analyse the financial search behaviour of small and medium-sized enterprises (SMEs) in different regions and the perceived importance of different external financiers for these firms. The findings are that large differences exist in the financial search behaviour exhibited by firms in the four different types of regions. In the metropolitan areas, firms are more active in searching for new owners, especially professional investors. In smaller municipalities, banks dominate as the most important financier. The paper fulfils an important role in elaborating on the use and importance of different types of financing in various regions.

Factors constraining the growth and survival of SMEs in Nigeria (2011): Implications for poverty alleviation, Mr. John O. Okpara, has conducted a study the purpose of this paper is to investigate the factors that hinder the growth and survival of small businesses in Nigeria. The results of the study reveal that the most common constraints hindering small business growth and survival in Nigeria are lack of financial support, poor management, corruption, lack of training and experience, poor infrastructure, insufficient profits, and low demand for product and services

Professor David Pickernell, Dr. Gary Packham, Dr. Paul Jones, Dr. Christopher Miller, Dr. Brychan Thomas have investigated in a research paper in 2011 "Graduate entrepreneurs are different: they access more resources" This paper investigates whether, and in what areas, graduate entrepreneurs, are significantly different to non-graduate entrepreneurs, both generally and in terms of external resources the findings of this paper are that the graduate entrepreneur-owned firms were statistically significantly more likely (than non-graduate owned firms) to be younger, be running younger businesses, in high knowledge services, to have Intellectual Property, make more use of websites, and be of high growth potential. In terms of external resources graduate owned businesses were more likely to have received beneficial business advice from informal networks / trade associations, government business services, friends and family, customers and suppliers, and to have public procurement customers at the national / international level.

Hernández-Cánovas, Ginés ' Koëter-Kant, Johanna (10th Jan 2011) SME financing in Europe: Cross-country determinants of bank loan: This article examines the influence of cross-country differences on bank loan maturity for small and medium-sized enterprises (SMEs), using a sample of 3366 SMEs from 19 European countries. It analyses a country's legal and institutional environment while controlling for banking structure, economic situation and firm-specific characteristics. The study finds that SMEs in countries that protect its creditors and enforce existing laws are more likely to obtain long-term bank debt. It also shows evidence that banks seem to rely more on the institutional environment when determining loan maturity for micro-firms than for medium-sized firms. Policymakers should take these findings into consideration when proposing policy changes that are likely to impact the legal or institutional environment. For example, policy changes that affect creditor protection may have a direct impact on SME lending, and thus have economic consequences.

Mr. S.K. Chhabra, (2009) - has conducted the study on **Role of scheduled commercial banks in socio-economic development of Nagaland**, the paper also evaluate the performance of commercial banks in term of various parameters, in which SME is a part. Nagaland is an industrially backward state. Till date the state is industrially represented by 10 medium and large industries, 1900 SSI units, the government of state is desperately trying for the development of SME's in the state. Commercial banks are expected to provide adequate and timely assistant in view of the backwardness of state, both commercial bank and financial institution are also expected to adequate concession through the various condition and norms, for commercial banks and term loan. The finding of this paper , today's banks have cumulatively financial majority of loans and advance in the world, banks have to ensure increased credit flow into the economy of Nagaland and also to the vital agriculture sectors for inducing growth process.

B Sobha Rani* and D Koteswara Rao March 2008 Financing Small Enterprises: Recent Trends: investigated Small and Medium Enterprise (SME) sector is a vibrant and dynamic one, and an engine of growth for the present millennium. Recent trends in credit flow to SMEs, in particular, and medium enterprises, in a limited way, from commercial banks and the Small Industries Development Bank of India (SIDBI). inspite of the special efforts, only 14.3% of registered small enterprises have availed institutional credit, credit for SMEs has shown disturbing trends, despite the high level of liquidity in the banking system and the initiatives taken by the Union Government and Reserve Bank of India (RBI)

Dr. Sunil Kumar (2006) investigated the concept of small industrial & entrepreneurship in Meerut district to find out effect of organization setup & working district industries centre to propose the entrepreneurship in small scale industries. The objectives of the study were to evaluate and access the progress and to trace out the bottle necks of different programs and scheme launched by district industry centre and analyze the different policy governed to entrepreneurial development of SME's to find out the constraints and factors affecting the entrepreneurship development in SME's further to suggest the suitable measures to overcome them.

O'donohoe, Sheila hanley, aoife lyons, (2005) relationship banking within the irish sme sector and its implications: Access to and the availability of finance for small firms has received considerable attention from policy makers. Somewhat more neglected is the concept of relationship banking, which this paper examines across two Irish regions, using the dimensions of proprietary information and multiple interactions between small firms and their bank(s). Findings from the survey suggest that SMEs maintain long and exclusive banking

relationships and that bank overdraft interest margins vary significantly across firm size and duration of the banking relationship and with overdraft size. Smaller firms appear to pay more for their borrowings but it is unclear whether banks are discriminating excessively against them. This ambiguity is underpinned by the different composition of finance to smaller firms, who have smaller average overdrafts.

Smallbone, David Welter, Friederike Jul/Sep (2001) The Role of Government in SME Development in Transition Economies : Examines the **role** of government in relation to small- and medium-sized enterprise (SME) development in economies at different stages of market reforms in Central and Eastern European countries; ways in which the state can influence the nature and pace of SME development; nature and extent of the contribution of SME to economic development; views and experiences of SME managers.

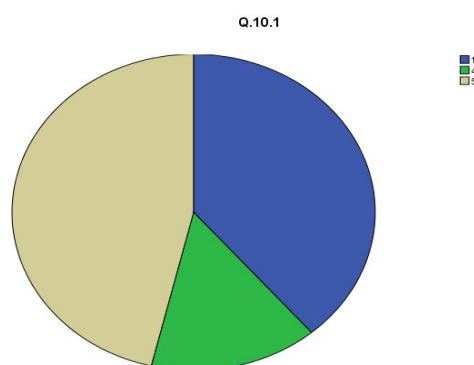
HYPOTHESIS

1. Null Hypothesis: - Loan facilities from the banks in Meerut District are not easily available.
2. Null Hypothesis: - Availability of loan facilities from the banks in Meerut District is full of constraints.
3. Null Hypothesis: - Availability of loan facilities from the banks in Meerut District is moderately difficult.
4. Null hypothesis: - SME’s are not facing problem due to delivery in loan.
5. Null Hypothesis: Growth of SME’s is not adversely affected by technology, infrastructure and low cost labour.

Availability of loan facilities from the banks in Meerut District:

Q.10.1 Easy Availability

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	31	38.8	38.8	38.8
	4	12	15.0	15.0	53.8
	5	37	46.2	46.2	100.0
	Total	80	100.0	100.0	

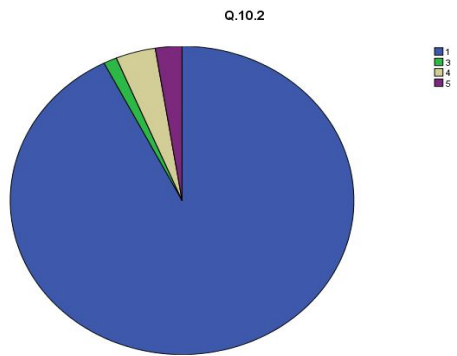


From the above pie chart we can say that majority of population agree with the fact that there is easy availability of loan. However around 38% of population strongly disagree with this fact. So we can conclude, SME’s have a mixed view about easy availability of loan.

FREQUENCY TABLE

Q.10.2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	74	92.5	92.5	92.5
	3	1	1.2	1.2	93.8
	4	3	3.8	3.8	97.5
	5	2	2.5	2.5	100.0
	Total	80	100.0	100.0	

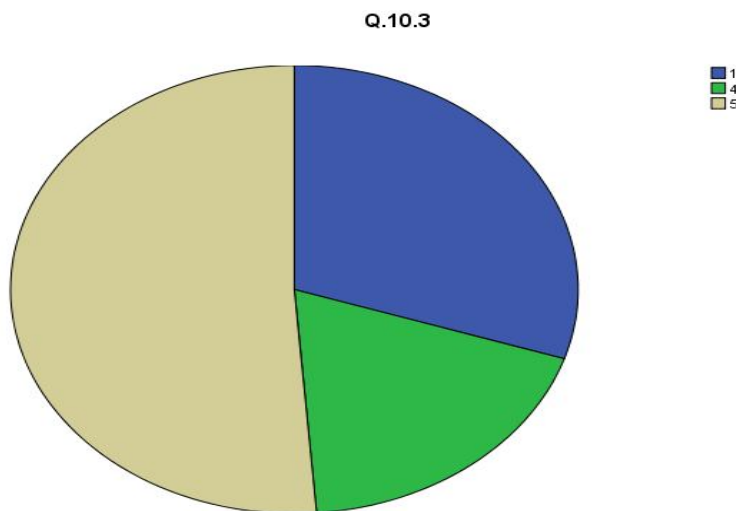


Majority of population strongly disagree with the fact that Availability of loan facilities from the banks in Meerut District is full of constraints

Q.10.3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	24	30.0	30.0	30.0
	4	15	18.8	18.8	48.8
	5	41	51.2	51.2	100.0
	Total	80	100.0	100.0	

Pie Chart



Majority of population strongly agree with the fact that Availability of loan facilities from the banks in Meerut District is moderately difficult to get.

SPSS output

Chi-Square Test

Test Statistics

	Q.10.1
Chi-Square	12.775 ^a
df	2
Asymp. Sig.	.002

a 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 26.7.

Frequencies Q.10.1

	Observed N	Expected N	Residual
1	31	26.7	4.3
4	12	26.7	-14.7
5	37	26.7	10.3
Total	80		

Frequencies

Q.10.2

	Observed N	Expected N	Residual
1	74	20.0	54.0
3	1	20.0	-19.0
4	3	20.0	-17.0
5	2	20.0	-18.0
Total	80		

Q.10.3

	Observed N	Expected N	Residual
1	24	26.7	-2.7
4	15	26.7	-11.7
5	41	26.7	14.3
Total	80		

Test Statistics

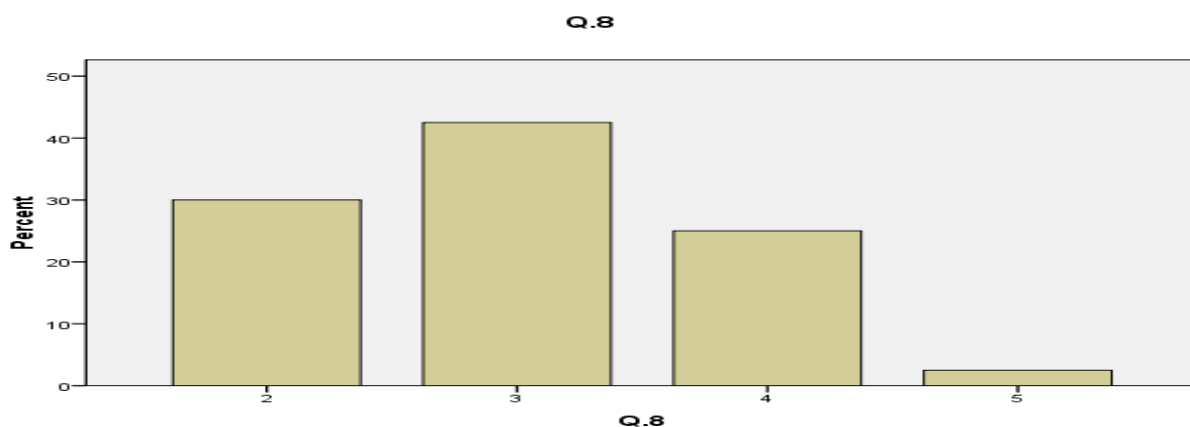
	Q.10.2	Q.10.3
Chi-Square	1.945E2 ^a	13.075 ^b
df	3	2
Asymp. Sig.	.000	.001

From above test statistics, it is concluded that p value is less than 0.05 level of significance, so hypothesis for Q.n.10.1, Q.n.10.2 and 10.3 are rejected.

The SME's are facing problems due to delay in the delivery of the loans by commercial banks

Q.8

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid 2	24	30.0	30.0	30.0
3	34	42.5	42.5	72.5
4	20	25.0	25.0	97.5
5	2	2.5	2.5	100.0
Total	80	100.0	100.0	



From above bar graph, it is concluded that majority of population have neutral view or disagree over whether SME's are facing problem due to delay in delivery of loan from commercial bank, followed by population who disagree with this opinion.

Null hypothesis: - SME's are not facing problem due to delivery in loan.

Chi-square test is performed using SPSS:-

Chi-Square Test Frequencies

Q.8

	Observed N	Expected N	Residual
2	24	20.0	4.0
3	34	20.0	14.0
4	20	20.0	.0
5	2	20.0	-18.0
Total	80		

Test Statistics

	Q.8
Chi-Square	26.800 ^a
df	3
Asymp. Sig.	.000

As we see in test statistics table, p value for each question is less than 0.05 level of significance, so we reject the entire null hypothesis and it is concluded that SME's are facing problem due to delivery in loans by commercial bank.

Q.7. Among the following reasons, in your opinion, growth of SME's is adversely affected due to

- (a) Scarcity of capital available (b) Scarcity of suitable technology
- (c) Availability of low cost labour (d) Scarcity of infrastructure.

Q.7 Frequencies

	Responses		Percent of Cases
	N	Percent	
Growth of SME's is a	15	11.0%	19.2%
adversely affected ^a b	41	30.1%	52.6%
c	24	17.6%	30.8%
d	56	41.2%	71.8%
Total	136	100.0%	174.4%

From the above frequency chart, it is concluded that scarcity of infrastructure is one of the reasons for affecting the growth of SME's followed by scarcity of suitable technology and availability of low cost labour respectively.

FINDINGS

It was found that p value is less than 0.05 level of significance so hypothesis for Q.n.10.1, Q.n.10.2 and 10.3 are rejected. For Q. no. 8, p value is less than 0.05 level of significance. So we reject the null hypothesis and it is concluded that SME's are facing some problems due to delivery in loans by commercial bank. For Q.no 7, it was found that scarcity of infrastructure is one of the reasons for affecting the growth of SME's, followed by scarcity of suitable technology and availability of low cost labour respectively.

CONCLUSION

In the decades to come, the SME sector will continue to be one of the engines of growth for the country's economy and presents a significant business opportunity for both banks and alternative finance providers. Access to adequate and timely credit from the banking system is still a critical problem being faced by this sector. Alternative sources of finance can, therefore, step in and assist SMEs in their growth and development. Access to finance is essential for improving SME competitiveness, as SMEs have to invest in new technologies, skills and innovation in growth and development. In recent years, they should improve their governance and risk management practices, maintain proper books of accounts, submit correct information to banks and all authorities, and make their operations more efficient and productive to get easier access to finance from banks and investors. This way the SME sector would become more competitive and efficient and contribute further to the economic development of our country. Greater and timely finance to SME's would enable them to develop innovative ways to overcome the current challenges to the growth of this market. This paper concluded that SME's are still facing some challenges in raising funds from commercial banks due to availability of funds, delay in delivery and lack of other resources like technology, infrastructure and low cost labour respectively

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RELEVANCE OF THE FACTORS OF JOB SATISFACTION IN RAISING EMPLOYEES' MOTIVATIONAL LEVEL – A CASE STUDY OF MULTI SPECIALTY HOSPITALS IN GUWAHATI, ASSAM**Dr. Ranjit Kr. Sarmah**Sr. Assistant Director, MC & MSS, ICAI, New Delhi

ABSTRACT

Motivational factors play an important role in increasing employee job satisfaction. Satisfied employees can help in improving organizational performance. Motivational factors have significant relationship with employee job satisfaction. When we study these factors, we find that factors like recognition of performance, job content and responsibility, advancement and possibility of growth, company's policy on leave rule and medical benefits, supervision and leadership, interpersonal relationship with the superiors, peers and with subordinates, working condition and salary, job security, autonomy at work, job status and prestige, training and development, job rotation etc. always have either positive or negative impact on the performance of the employees.

In the wake of post liberalization scenario, the health care industry is leading from the front. The giant business houses are showing keen interest in investing huge amount of money in this growing sector without compromising on the core values of this noble and human offering of holistic healthcare facilities. The changing scenario of health care industry is witnessing a paradigm shift. At the backdrop of all these issues, the present research study is an attempt to study the factors of job satisfaction which affect employee's motivational level with special impetus on selected multi specialty hospitals rendering their services at Guwahati, Assam, India and surrounding areas.

Therefore, this empirical study is undertaken to determine "the relevance of the factors of job satisfaction in raising motivational level of the employees of multi specialty hospitals at Guwahati, Assam".

Key words: job satisfaction, motivation, multi specialty hospital, productivity, reward.

OBJECTIVES OF THE STUDY

- (i) To determine the influence of various factors of job satisfaction such as recognition of performance, job responsibility, advancement and possibility of growth, interpersonal communication, working condition, salary and incentives, job security, policy on training and development, job rotation on the employees' motivational level.
- (ii) To test the hypothesis whether there is a relation between work motivation and job satisfaction.
- (iii) To suggest and recommend measures for improving employees' motivational level.

HYPOTHESIS OF THE STUDY

The null hypothesis of the study is –

“The multi specialty hospitals do not reward productivity”.

RESEARCH METHODOLOGY

The methodology for this research study will be as follows:

- (i) A random sample of size 500 was drawn from the existing employees (around 900) of the two multi specialty hospitals from various departments like Medical Records, Accounts, Marketing, Reception / EPBX, Housekeeping, Laboratory Technicians, Nursing, Administration and Doctors. The sample so collected is divided into two categories i.e., Technical and Non-technical on the basis of their work areas.
- (ii) A questionnaire was designed on the basis of 5-point rating scale to collect primary data from the selected sample of size 500 and the questionnaire was administered on the selected sample and the responses were sought.
- (iii) The primary data collected (received 487 responses only) through the questionnaire was arranged in a tabulated form with the help of tally marking. For each question in the questionnaire, the mean scores of the responses were determined statistically.

The next step was to determine the required score for all the questions in the questionnaire. Since, the key to answer in the questionnaire was indicating sufficiently effective/satisfactory/important to the issues in the questions, therefore required score in this study was considered to be 4.

(iv) The means scores calculated from the responses of each question will be compared with the required score of 4 and accordingly interpretations were made as under:

- 0.0 ----- 1.0 indicates not at all effective
- 1.1 ----- 2.0 indicates slightly effective
- 2.1 ----- 3.0 indicates somewhat effective
- 3.1 ----- 4.0 indicates sufficiently effective
- 4.1 ----- 5.0 indicates extremely effective

(v) On the basis of the responses, the hypothesis was tested with the help of Chi Square Test.

(vi) On the basis of the result, the suggestions and recommendations were offered.

LIMITATION OF THE STUDY

Irrespective of so much importance, this study had the following limitations:

- (i) Certain employees considered the project study as an unnecessary mental gymnastics and did not bother to reply to questionnaire as a sheer waste of time.
- (ii) Responses on the project study by the sample officials and employees might not come true cent percent and error in judgment was bound to occur.
- (iii) Some executives and employees were reluctant to give time out of their busy schedule to respond positively to the study. Moreover, they also avoided providing responses and gave incomplete answers and provided similar answers taking influences of their peers.

ORGANIZATION PROFILE

International Hospital

International Hospital, a modern high tech hospital was set up in the heart of Guwahati city in 1999 with a goal to reduce difficulties of the patients of North East seeking good healthcare facilities and to reduce the level of overall expenditure for tertiary care. With the emphasis on “People come first”, the hospital has recruited more than 500 staff whose training and development is a challenge that the hospital has well prepared itself for.

GNRC Ltd.

Guwahati Neurological Research Centre (GNRC) Ltd. was established in 1987 with active equity participation of AIDC, NEDFI, IDBI, IRCTC, Tata Tea Ltd. along with share holders from India and abroad. In 1997, GNRC, in collaboration with Madras Medical Mission, set up another super specialty institute in the name of GNRC Heart Institute to cater the competent services for cardiac ailments. In 2001, the GNRC set up the Institute of Critical Care with three sophisticated operation theatres. Today, GNRC is managing three full fledged super specialty hospitals with a team of more than 400 employees comprising of specialized Doctors and 150 Nurses and expert administrative employees.

FINDINGS AND INTERPRETATION OF THE STUDY

The statistical findings (mean scores of responses) regarding various factors of job satisfaction such as recognition of performance, job responsibility, advancement and possibility of growth, interpersonal communication, working condition, salary and incentives, job security, policy on training and development, job rotation are given below:

Factors	Mean scores of responses	
	International Hospital	GNRC Ltd.
Recognition of performance	4.2	4.3
Job responsibility	4.2	4.8
Advancement and possibility of growth	4.2	4.3
Interpersonal communication		
a) Superior	4.7	4.3
b) Peers	4.5	4.2
c) Subordinates	4.3	4.3
Working condition	3.5	3.7
Salary and incentives	3.8	3.8
Job security	4.2	4.1
Policy on training and development	3.4	4.1
Job rotation	2.3	3.3

INTERPRETATION

It has been observed from the table above that the mean scores of responses of employees of International Hospital and GNRC Ltd. on recognition of performance is 4.2 and 4.3 respectively which are higher than the required score of 4.

Similarly, the mean scores of responses of the employees of International Hospital and GNRC Ltd. on job responsibility, interpersonal communication with superior, peers and subordinates are higher the required score of 4. The mean scores of responses of the employees of International Hospital and GNRC Ltd. on job security, policy on training and development are also found to be higher than the required score of 4.

However, the mean scores of responses of employees of the two multi specialty hospitals on working condition, salary and incentives as well as on job rotation are found to be lower than the required score of 4.

SUGGESTIONS AND RECOMMENDATION

Based on the statistical findings, the suggestions for improving the problematic areas are as follows:

RECOGNITION OF PERFORMANCE

The presence of factor like recognition leads to job satisfaction and absence of this leads to job dissatisfaction. Recognition of performance is associated with high level of job satisfaction; hence it is called as “motivator”. The multi specialty hospitals should continue recognizing the performance of the employees so as to prevent negative reaction and improve motivation of the employees.

Job responsibility

The content of a job should add motivating factors to job. The job should provide the employees more challenge, more of a complete task, more responsibility, more opportunity for growth and more opportunity to contribute their ideas which can improve the quality of the work output, employee motivation and satisfaction. The multi specialty hospitals have adopted an approach to expand the job content giving the employees benefits for more satisfaction so as to enhance customer service with less error.

Advancement and possibility of growth

One of the important motivators of job satisfaction is advancement and possibility of growth. The absence of this factor de-motivates the employees and affects their commitment towards the organization. Since, the multi specialty hospitals have provided the employees opportunities to enrich and empower, promote from within, develop a sense of commitment that has generated a positive effect on organizational performance as a whole.

Interpersonal communication

Effective interpersonal relation can avoid interpersonal conflict which is a major reason of organizational conflict. Therefore, need for understanding the dynamics of interpersonal personal is quite important for every employee. This is also a effective tool to reduce the communication barrier between the superiors and subordinates. The multi specialty hospitals have created such an environment where superiors and subordinates have become complementary to each other thereby removing a situation of incompatible goals, attitudes, emotions or behavior which can lead to disagreement and serious conflict.

Working condition

Working conditions and job satisfaction are positively related. On the contrary, poor working conditions cause job dissatisfaction. Since, working condition covers physical and social environment of the work place as well as security and safety related with it, the work place should be cleaned at regular interval to make it a better work place. The multi specialty hospitals must understand that improvement of working environment is one of the factors for sound survival of the organization by providing actual amount of safety and security.

Salary and incentive

The employees are found satisfied with their jobs when they feel that they are remunerated in a fair manner. As far as job satisfaction is concerned, salary is the most important factors among all factors. Consideration should not be only the qualification and experience, but also the present cost of living index and employees' performance on the job also should be taken into account. Another important point is that the salary of the employees should be based strictly on performance. The multi specialty hospitals must consider these points while framing salary and compensation benefits for the employees

Job security

Job security is considered as the factor of dissatisfaction. In any organization, the employees are quite concerned about their future. As a result, they like to work in an organization where their future is secured. The multi specialty hospitals should continue encourage the employees to save something for their future.

Policy on training and development

Learning is considered as modern weapon to cope up with the fast changing environment. A well planned training and development programme improves knowledge and skills of the employees and develop them for future up gradation. The multi specialty hospitals should organize more training programmes on the basis of the appraisal of the employees

Job rotation

This practice implies the moving of employees from job to job without any change in the job. The advantages of job rotation are – it removes boredom, it broadens employees’ knowledge and skills, employees become competent in several jobs rather than one. Though the multi specialty hospitals have limited scopes for job rotation and the possibility of rotation of jobs is also rare, particularly for the technical staff; however, the non-technical staff may be given opportunities to be competent in several jobs rather than one.

Test of hypothesis: Chi Square Test

In this study, the hypothesis was tested using Chi Square (χ^2) Test. The formula of Chi Square (χ^2) test was used in the study as under:

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

Where ‘O’ is observed frequency and E is the corresponding expected frequency.

The hypothesis of this study was - “The Multi Specialty Hospitals do not reward Productivity”.

Statistical findings

The data received from employees of International Hospital and GNRC Ltd. was as under:

Hospitals	Responses of employees		Total
	Yes	No	
International Hospital	92	166	258
GNRC Ltd.	82	147	229
Total	174	313	487

Source: Primary data

Computation of χ^2

Sl. No.	Observed no. of responses (O)	Expected no. of responses (E)	(O - E)	$\frac{(O - E)^2}{E}$
1	92	$\frac{174 \cdot 258}{487} = 92.18$	- 0.18	0.00035
2	82	$\frac{174 \cdot 229}{487} = 81.82$	+ 0.18	0.00040
3	166	$\frac{313 \cdot 258}{487} = 165.82$	+ 0.18	0.00020
4	147	$\frac{313 \cdot 229}{487} = 147.18$	- 0.18	0.00022
Total	487			0.00117

Source: Primary data

Totals may not agree due to rounding off the figures

Therefore,

$$\chi^2 = \sum \frac{(-)^2}{E} = 0.00117$$

$$\text{Degree of freedom (d. f.)} = (2-1) (2-1) = 1$$

The table value of χ^2 for 1 degree of freedom at 5 percent level of significance is 3.841. Since, the calculated value of χ^2 (0.00117) is much less than the table value (3.841), hence it is insignificant. The result, thus, supports the hypothesis, i.e. the hypothesis is accepted.

Hence, the study revealed that the multi specialty hospitals do not reward productivity.

REWARD AND PRODUCTIVITY

Job satisfaction leads to increased productivity. These two factors are interrelated. Organizations with more satisfied employees tend to be more effective than organizations with less satisfied employees. There is a positive relationship between satisfaction and productivity. A happy worker is always a productive worker. Organization should always stress on productivity. Since reward is linked with productivity, the multi specialty hospitals should always reward a productive worker. Even a letter of appreciation from the management can do miracle. When the employees are satisfied to a certain level, they can be motivated to do better performance which will help in achieving over all organizational objectives or goals. Because it is always easier to motivate a satisfied worker than to motivate a dissatisfied worker.

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WORKING CAPITAL ANALYSIS OF INDIAN FMCG COMPANIES: A COMPARATIVE STUDY OF ITC & HUL LTD

Dr. Titto Varghese and Jayalekshmi R

ABSTRACT

The efficient management of working capital plays a crucial role in the successful functioning of a firm. . Firm should always keep monitoring the liquidity position as it projects the company's credit image. For making the analysis of Liquidity-profitability relationship of ITC & HUL Ltd, ratio analysis techniques of Financial Management and statistical techniques have been used.

By observation of this it can be seen that the working capital position of ITC was strong in comparison with HUL Ltd. The profitability position of ITC was much appreciable than HUL. Also the liquidity position of HUL is not up to the ideal level. The short term solvency position of ITC was much satisfactory than HUL. Stabilizing of these ratios facilitate the maximization of the wealth of the firm. From this study it can be concluded that there is no significant difference in the Working Capital & Profitability, profitability & liquidity position and risk & Profitability of the two companies during the period of study. The risk factor of the firm is high as compared to profitability of HUL. The total risk of the firm is also high as compared to the Profitability, which was not worthwhile for the future prospects of HUL.

Key Words: Liquidity, Profitability, Risk, Current ratio, Net Working Capital, Risk-return Trade Off.

INTRODUCTION

The Management of Fixed assets and Current assets has a great impact on future return and risk of the company. Managing fixed assets will help the concern in long term decisions. The current assets are the assets which can be used by the company to meet their short term obligations. Working capital refers to the firm's investment in short term assets i.e. cash, short-term securities, debtors etc. it is the fund needed to meet the day-to-day expenses. So it is vital ingredient to the business as the blood is to the human body.

There are two concepts of working capital: Gross Working Capital and Net Working Capital. The former means the firm's investment in current assets and later the excess of current assets over the current liabilities. Since the elements of working capital are short term in nature constant monitoring must be done for proper management. Working capital can also be defined as the working expenses that get blocked in current assets along the productive line of an enterprise. The Net Working Capital is that liquidity which takes care of the working expenses.

The working capital requirement of a firm will depend upon its operating cycle. It is a cycle having a continuous series of steps for conversion of sales into cash. The working capital is required maintaining its liquidity in day-to-day operation to ensure it's smooth running and meets its obligation (Eljelly, 2004). Yet, this is not a simple task since managers must make sure that business operation is running in efficient and profitable manner. There are the possibilities of mismatch of current asset and current liability during this process. If this happens and firm's manager cannot manage it properly then it will affect firm's growth and profitability. This will further lead to financial distress and finally firms can go bankrupt.

WORKING CAPITAL MANAGEMENT

A firm should maintain adequate level of working capital to meet the current obligations to maintain uninterrupted business operation. Firm should always keep monitoring the liquidity position as it projects the company's credit image. Lack of liquidity can create a bad image among the parties interested in the firms functioning. Also firm must ensure that there should be a proper balance between current assets and current liabilities, as it can affect the profitability of the firm. Greater investment in idle current assets can result in decrease in profitability.

So the goal of working capital management is to ensure that the firm is able to continue its day-to-day operations and it has the sufficient ability to satisfy its present and future short term expenses. There should be proper proportion between the level of current assets and current liability. So an efficient working capital management will enable the concern to maintain a good balance between the liquidity and profitability. Ezra Solomon states that "liquidity measures a company's ability to meet expected as well as unexpected requirement of cash to expand its assets, reduce its liabilities and cover up an operating losses".

RISK-RETURN TRADE OFF

Every financial Decision has different degree of risk. Return and Risk are directly proportional, as a higher degree of risk can lead to higher return and vice-versa. Risk return trade off in an enterprise can be sustained by maintaining a proper balance between liquidity and profitability. Liquidity in a firm represents the amount of investment in current assets and profitability the productivity of these current assets. Higher investment in unproductive current assets can lead to decrease in profitability. Working capital is to achieve desired trade off between liquidity and profitability (Smith 1980; Rehman & Nasr, 2007). Referring to theory of risk and return, Investment with more risk will result to more return. Thus, Firm's with high liquidity of working Capital many have to low risk then low Profitability. Conversely, Firm that has low liquidity of working capital, facing high risk results to high Profitability. The issue here is in managing working capital, Firm must take into consideration all the items in both accounts and try to balance the risk and return. So a proper management of Net Working Capital will ensure a good risk-return proportion.

JUSTIFICATION OF THE TOPIC

Proper management of working capital is required to ensure that the firm is able to continue its day-to-day operations and it has the sufficient ability to satisfy its present and upcoming short term expenses. The working capital position helps the investors, creditors, bankers, suppliers, financial institutions, government etc. judge the stability of the enterprise. The financial institutions and individuals may be interested in investing in that company which is financial strong to meet its present and upcoming short term expenses. Well maintained working capital will help to create good creditors image, avoid unwanted borrowing, healthy government support etc. An efficient working capital management will only help a firm to compete in the present global market. Working capital is the life blood and nerve centre of business. Just as circulation of blood is essential in the human body for maintaining life, working capital is very essential to maintain the smooth running of the business. No business can run successfully without an adequate amount of working capital. Working capital plays a vital role in the impact of the business. So there exist a number of implication and gaps for enquiry into working capital management of companies; against this background a study was conducted on analyzing the Working Capital position of FMCG Companies: A comparative study of ITC and HUL Ltd.

OBJECTIVES OF STUDY

This study has the following objectives:

- a. To examine the Working capital position of ITC & HUL Ltd.
- b. To analyze the effect of Working capital on Profitability of ITC & HUL Ltd.
- c. To analyze the effect Working capital on liquidity of ITC & HUL Ltd.
- d. To analyze the effect of Risk on Profitability and Liquidity of ITC & HUL Ltd.
- e. To give suggestions on the basis of findings of the study.

HYPOTHESES OF THE STUDY

This study is based on the following null hypotheses (H_0):

- I. There is no significant difference between Working Capital and profitability of HUL & ITC during the period of study.
- II. There is no significant difference between liquidity and profitability of HUL & ITC during the period of study.
- III. There is no significant difference between risk and profitability of HUL & ITC during the period of study.

PROFILE OF COMPANIES

ITC : It was incorporated on August 24, 1910 under the name Imperial Tobacco Company of India Limited. As the Company's ownership progressively Indianised, the name of the Company was changed from Imperial Tobacco Company of India Limited to India Tobacco Company Limited in 1970 and then to I.T.C. Limited in 1974. In recognition of the Company's multi-business portfolio encompassing a wide range of businesses - Cigarettes & Tobacco, Hotels, Information Technology, Packaging, Paperboards & Specialty Papers, Agri-business, Foods, Lifestyle Retailing, Education & Stationery and Personal Care - the full stops in the Company's name were removed effective September 18, 2001. The Company now stands rechristened 'ITC Limited'.

HUL: In 1931, Unilever set up its first Indian subsidiary, Hindustan Vanaspati Manufacturing Company, followed by Lever Brothers India Limited (1933) and United Traders Limited (1935). These three companies

merged to form HUL in November 1956; HUL offered 10% of its equity to the Indian public, being the first among the foreign subsidiaries to do so. Unilever now holds 67.25% equity in the company. With over 35 brands spanning 20 distinct categories such as soaps, detergents, shampoos, skin care, toothpastes, deodorants, cosmetics, tea, coffee, packaged foods, ice cream, and water purifiers, the Company is a part of the everyday life of millions of consumers across India. Its portfolio includes leading household brands such as Lux, Lifebuoy, Surf Excel, Rin, Wheel, Fair & Lovely, Pond's, Vaseline, Lakmé, Dove, Clinic Plus, Sunsilk, Pepsodent, Closeup, Axe, Brooke Bond, Bru, Knorr, Kissan, Kwality Wall's and Pureit.

VI. REVIEW OF LITERATURE

Gul, Khan, Rehman, Khan, Khan and Khan (2013) investigated the influence of working capital management (WCM) on performance of small medium enterprises (SMEs) in Pakistan. The duration of the study was seven years from 2006 to 2012. The data used in this study was taken from SMEDA, Karachi Stock Exchange, tax offices, company itself and Bloom burgee business week. The dependent variable of the study was Return on Assets (ROA) which was used as a proxy for profitability. Independent variables were Number of Days Account Receivable (ACP), Number of Day's Inventory

Almazari (2013) investigated the relationship between the working capital management(WCM) and the firms' profitability for the Saudi cement manufacturing companies. The sample included 8 Saudi cement manufacturing companies listed in the Saudi Stock Exchange for the period of 5 years from 2008-2012. Pearson Bivariate correlation and regression analysis were used. The study results showed that Saudi cement industry's current ratio was the most important liquidity measure which effected profitability, therefore, the cement firms must set a trade-off between these two objectives so that, neither the liquidity nor profitability suffers. It was also found, as the size of a firm increases, profitability increased. Besides, when the debt financing increased, profitability declined. Linear regression tests confirmed a high degree of association between the working capital management and profitability.

Akoto, Awunyo- Vitor and Angmor (2013) analyzed the relationship between working capital management practices and profitability of listed manufacturing firms in Ghana. The study used data collected from annual reports of all the 13 listed manufacturing firms in Ghana covering the period from 2005-2009. Using panel data methodology and regression analysis, the study found a significant negative relationship between Profitability and Accounts Receivable Days. However, the firms' Cash Conversion Cycle, Current Asset Ratio, Size, and Current Asset Turnover significantly positively influence profitability. The study suggests that managers can create value for their shareholders by creating incentives to reduce their accounts receivable to 30 days. It is further recommended that, enactments of local laws that protect indigenous firms and restrict the activities of importers are eminent to promote increase demand for locally manufactured goods both in the short and long runs in Ghana. Omesa, Maniagi, Musiega and Makori (2013) examined the relationships between Working Capital Management and Corporate Performance of manufacturing firms listed on the Nairobi securities exchange. A sample of 20 companies whose data for 5 years from 2007-2011

Sharma and Kumar (2011) examined the effect of working capital on profitability of Indian firms. They collected data about a sample of 263 non-financial BSE 500 firms listed at the Bombay Stock (BSE) from 2000 to 2008 and evaluated the data using OLS multiple regression. The results revealed that working capital management and profitability is positively correlated in Indian companies. The study further reveals that inventory of number of days and numbers of day's accounts payable are negatively correlated with a firm's profitability, whereas number of days accounts receivables and cash conversion period exhibit a positive relationship with corporate profitability.

Raheman, Afza, Qayyum and Bodla (2010) analyzed the impact of working capital management on firm's performance in Pakistan for the period 1998 to 2007. For this purpose, balanced panel data of 204 manufacturing firms was used which are listed on Karachi Stock Exchange. The results indicate that the cash conversion cycle, net trade cycle and inventory turnover in days are significantly affecting the performance of the firms. They concluded that manufacturing firms were in general facing problems with their collection and payment policies. Moreover, financial leverage, sales growth and firm size also had significant effect on the firm's profitability. They study recommended that effective policies must be formulated for the individual components of working capital.

Mathuva (2010) in his study on the influence of working capital management on corporate profitability found that there exists a highly significant negative relationship between the time it takes for firms to collect cash from their customers and profitability. He explained that the more profitable firms take the shortest time to collect cash from the customers. The study further revealed that there exist a highly significant positive

relationship between the inventory conversion period and profitability. It was explained that firms, which maintain sufficiently high inventory levels reduce costs of possible interruptions in the production process and loss of business due to scarcity and products. Finally, the study established that there exists a highly significant positive relationship between the average payment period and profitability. He held that the longer a firm takes to pay its creditors, the more profitable it is. In this study, a sample of 30 firms listed on Nairobi Stock Exchange for the periods 1993 to 2008 was used. Both the ported OLS and the fixed effects regression models were used.

Gill, Biger and Mathur (2010) analyzed the relationship between working capital management and profitability of 88 American firms listed on New York Stock Exchange for a period of 3 years from 2005 to 2007 was selected. The data was analyzed using Pearson Bivariate Correlation Analysis and Weighted Least Squares (WLS) Regression techniques. They found statistically significant relationship between the cash conversion cycle and profitability, measured through gross operating profit. It followed that managers can create profits for their companies by handling correctly the cash conversion cycle and by keeping accounts receivables at an optimal level.

Bonamyong (2005) highlighted that a company with a lower cash conversion cycle is more efficient because it turns its working capital over more times in a year, which means it generated more sales per unit of money invested in working capital management.

Garcia-Teruel and Martinez-Solano (2007) in their Study demonstrated that managers can create value by reducing their inventories and shortening the number of days for which their accounts are outstanding. Gupta (2010) observed that better working capital can significantly help companies improve their growth rates vis-à-vis competitors and ultimately increase the wealth of their share holders.

RESEARCH DESIGN & METHODOLOGY

In this study the sample companies taken for analysis of Working Capital position are ITC and HUL Ltd. Present study is based on secondary data i.e. published annual reports of the companies and statistical reports.. These financial data’s are edited, classified and tabulated as per the requirements of the study. This study has covered 10 years data’s from 2004 to 2013 for analyzing the Working Capital position of ITC Ltd and 2003 to 2013 of HUL. This change in study period was due to change in accounting period of HUL Ltd. Till 2009 HUL was following calendar year for preparation of its financial statements, then afterwards it shifted to financial year i.e. April-march. The year 2008-2009 annual accounts were prepared for 15 months.

The Liquidity and Profitability position have been measured to analyze the Working Capital position of ITC & HUL Ltd. The collected data have been analyzed by the various financial ratios for finding liquidity and profitability. For assessing the behavior of above ratios, Arithmetic Mean, Standard Deviation, Spearman’s Rank Correlation Co-efficient and Student t-test has been used.

LIMITATION OF THE STUDY

The following are the limitation of the study:

1. The study covers only 10 years period i.e. 2003-2004 to 2012-2013 for the Working Capital analysis of ITC Ltd and 2002-2003 to 2012-2013 of HUL Ltd.
2. The secondary data’s used in this study have been taken from published annual reports only.
3. As per the requirement and necessity some data’s have been grouped and sub-grouped.

IX. ANALYSIS OF WORKING CAPITAL MANAGEMENT OF ITC & HUL LTD

Liquidity

WORKING CAPITAL POSITION

Gross Working Capital and Net Working Capital. The former means the firm’s investment in current assets and later the excess of current assets over the current liabilities. The excess of current assets over the current liabilities provides measures of safety margin available against uncertainty in realization of current assets and flow of funds.

Table-I: Statement Showing Net Working Capital Position

Year	ITC (₹)	Year	HUL (₹)
2004	-47.36	2003	-368.81
2005	505.47	2004	-409.30

2006	1583.83	2005	-1355.30
2007	2432.13	2006	-1353.41
2008	2586.97	2007	-1775.46
2009	3456.1	2008-2009	-97.15
2010	78.84	2009-2010	-1276.74
2011	1621.19	2010-2011	-1192.04
2012	5341.74	2011-2012	1548.78
2013	7260.74	2012-2013	110.14
Arithmetic Mean	2481.97	Arithmetic Mean	-616.93
Avg Annual Growth Rate (%)	1543.95	Avg Annual Growth Rate (%)	12.90
S.D (σ)	2347.67	S.D (σ)	988.25

Source: Compiled from the annual reports of ITC and HUL Ltd.

INTERPRETATION

ITC: During the period of study working capital showed a fluctuating tendency. The highest value of working capital ₹260.74 Crores was in last year 2012-13 and least of ₹78.84 Crores in 2009-10. During the year 2003-04 working was negative with value of ₹- 47.36 Crores. The Gross Working capital of the firm had a mean value of ₹7547.41 Crores. The Net working capital of the firm had an average annual growth rate of 1543.95% and a high standard deviation of 2347.67. The Net working Capital of the firm had an average value of ₹2481.97crores.

HUL: During the period of study working capital showed a fluctuating tendency. The highest value of working capital ₹1548.78 Crores was in year 2011-12 and least of ₹-1355.30 Crores in 2005. During the final years 2012 & 2013 working was positive with value of ₹ 1548.78 Crores and 110.14 Crores respectively. The Gross Working capital of the firm had a mean value of ₹ 5017.83Crores. The Net working capital of the firm had an average annual growth rate of 12.90% and a high standard deviation of 988.25. The Net working Capital of the firm had an average value of ₹-616.93 crores.

CURRENT RATIO

Liquidity ratio is defined as the ratio if current assets to current liabilities. It is an index of technical solvency and an index of the strength of the working capital. A high current ratio is an assurance that a firm will have adequate funds to pay current liabilities and other current payments. It can be calculated as follows:

$$= \frac{\text{Current Assets}}{\text{Current liabilities}}$$

Table II: Statement Showing Current Ratio

Year	ITC (Times)	Year	HUL (Times)
2004	0.99	2003	0.90
2005	1.17	2004	0.89
2006	1.44	2005	0.67
2007	1.63	2006	0.70
2008	1.58	2007	0.66
2009	1.73	2008-2009	0.98
2010	1.01	2009-2010	0.81
2011	1.19	2010-2011	0.84
2012	1.59	2011-2012	1.23
2013	1.70	2012-2013	1.01
Arithmetic Mean	1.40	Arithmetic Mean	0.87
Avg Annual Growth Rate (%)	7.17	Avg Annual Growth Rate (%)	1.22
S.D (σ)	0.29	S.D (σ)	17.71

Source: Compiled from the annual reports of ITC and HUL Ltd.

INTERPRETATION

ITC: During the period of study it was observed that current ratio had a current ratio of above 1, except in the year 2003-04. The Highest ratio of 1.70 times was observed in the year 2012-13 and the least of 0.99 in the 2003-2004. The Current Ratio showed an increasing trend with an average ratio of 1.40 times with an average annual growth rate of 7.17%. The standard deviation of the ratio was low with a value of Rs. 0.29.

HUL: During the period of study it was observed that current ratio of the firm was below 1 for the first eight years of study, The Highest ratio of 1.23 times was observed in the year 2011-12 and the least of 0.67 in the 2005. The Current Ratio showed an increasing trend with an average ratio of 0.87 times with an average annual growth rate of 1.22%. The standard deviation of the ratio was high with a value of Rs. 17.71, which shows high degree of variability than ITC.

LIQUID RATIO OR QUICK RATIO

It is the ratio which shows the relationship between liquid assets and current liabilities. It firm's capacity to pay its obligation at time of emergency situation. The ideal ratio is 1:1 Times. The ratio can be expressed as given below:

$$= \frac{\text{Liquid Assets}}{\text{Current liabilities}}$$

Where Liquid Assets = Current Assets - (Stock + Prepaid Expenses)

Table No. III: Statement of Liquid Ratio

Year	ITC (Times)	Year	HUL (Times)
2004	0.55	2003	0.54
2005	0.51	2004	0.49
2006	0.71	2005	0.35
2007	0.76	2006	0.36
2008	0.67	2007	0.27
2009	0.76	2008-2009	0.54
2010	0.44	2009-2010	0.49
2011	0.57	2010-2011	0.46
2012	0.97	2011-2012	0.83
2013	1.06	2012-2013	0.68
Arithmetic Mean	0.70	Arithmetic Mean	0.50
Avg Annual Growth Rate (%)	9.27	Avg Annual Growth Rate (%)	2.59
S.D (σ)	0.20	S.D (σ)	16.38

Source: Compiled from the annual reports of ITC and HUL Ltd.

INTERPRETATION

ITC: The ratio had the highest value of 1.06 times in the year 2012-13 and the least of 0.44 times in 2009-10. During the period of study this ratio also observed a fluctuating tendency. The liquid assets had an average value of `3992.003 Crores with an average annual growth rate of 39.94%. The liquidity ratio had an average value of 0.70 times with an average annual growth rate of 9.27%. The standard deviation of the ratio was very low with a value of 0.20.

HUL: The ratio had the highest value of 0.83 times in the year 2011-12 and the least of 0.27 times in 2007. During the period of study this ratio also observed a fluctuating tendency. The liquid assets had an average value of `2938.80 Crores with an average annual growth rate of 15.65%. The liquidity ratio had an average value of 0.50 times with an average annual growth rate of 2.59%. The standard deviation of the ratio was high with a value of 16.38.

CASH POSITION RATIO

It shows how much of total assets is kept in the form of cash is revealed through this ratio. How much per rupee of total assets is kept in the form of cash. Higher the ratio shows less risk, but lower rate of return as cash by itself does not earn profit. The ratio can be denoted as given below:

$$= \frac{\text{Cash + Cash Equivalents}}{\text{Total Assets}}$$

Table IV: Statement of Cash Position Ratio

Year	ITC (Times)	Year	HUL (Times)
2004	0.002	2003	0.21
2005	0.005	2004	0.20
2006	0.065	2005	0.15
2007	0.06	2006	0.15
2008	0.033	2007	0.16
2009	0.053	2008-2009	0.72
2010	0.049	2009-2010	0.75
2011	0.088	2010-2011	0.66
2012	0.097	2011-2012	0.18
2013	0.106	2012-2013	0.16
Arithmetic Mean	0.06	Arithmetic Mean	0.33
Avg Annual Growth Rate (%)	520.00	Avg Annual Growth Rate (%)	-2.38
S.D (σ)	0.04	S.D (σ)	0.26

Source: Compiled from the annual reports of ITC and HUL Ltd.

INTERPRETATION

ITC: Cash position ratio also showed similar fluctuating tendency like the above ratios. It had a mean value of 0.06 times with an average annual growth rate of 520.00%. The highest ratio of 0.106 times was observed in 2012-13 and least of 0.002 in 2003-04. The firm maintained the highest cash of `3615.00 Crores in 2012-13 and the least of `34.04 in 2003-04. Cash had an average value of `1139.57 Crores with an average annual growth rate of 673.07%. The ratio had a very low degree of standard deviation with value of 0.04.

HUL: Cash position ratio also showed similar fluctuating tendency like the above ratios. It had a mean value of 0.33 times with a negative average annual growth rate of -2.38%. The highest ratio of 0.75 times was observed in 2009-10 and least of 0.15 in 2005 & 2006. The firm maintained the highest cash of `2012.38 Crores in 2009-10 and the least of `262.42 crores in 2007. Cash had an average value of `1209.98 Crores with an average annual growth rate of 13.57%. The ratio had a very low degree of standard deviation with value of 0.26.

WORKING CAPITAL TURNOVER RATIO

This ratio reveals the overall picture of the operational capital necessary for maintaining a level of its sales. Higher ratio indicates quick conversion of working capital into sales. Also greater the ratio, shorter is the working capital cycle and better is working capital management. It can be expressed as follows:

$$= \text{Annual Sales} / \text{Average Working Capital}$$

Table V: Statements of Working Capital Turnover ratio

Year	ITC (Times)	Year	HUL (Times)
2004	-184.71	2003	-14.34
2005	13.96	2004	-13.28
2006	5.50	2005	-4.57
2007	4.56	2006	-4.79
2008	5.09	2007	-4.11
2009	4.24	2008-2009	-111.99

2010	212.72	2009-2010	-6.98
2011	12.13	2010-2011	-8.47
2012	4.30	2011-2012	8.07
2013	3.75	2012-2013	127.81
Arithmetic Mean	8.15	Arithmetic Mean	-3.26
Avg Annual Growth Rate (%)	10.20	Avg Annual Growth Rate (%)	99.2
S.D (σ)	93.79	S.D (σ)	57.15

Source: Compiled from the annual reports of ITC and HUL Ltd.

INTERPRETATION

ITC: The above table shows the sales generated per amount of working capital of the firm. This Ratio also showed a fluctuating tendency during the period of study. The Ratio had an average value of 8.15 times with a negative average annual growth rate of 10.20%. Net Working Capital turnover ratio observed the highest value of 212.72 times in 2009-10 and least of -184.71 times in 2003-04. The Ratio had a high standard deviation of 93.79.

HUL: This Ratio also showed a fluctuating tendency during the period of study. The Ratio had an average value of -3.26 times with a average annual growth rate of 99.2%. Net Working Capital turnover ratio observed the highest value of 127.81 times in 2012-13 and least of -111.99 times in 2008-09. The Ratio had a high standard deviation of 57.15.

PROFITABILITY

It indicates the percentage of return in the business. A high Return on Investment shows the company is having a higher rate of profit as percentage of capital employed. It is calculated as follows:

$$= \frac{\text{EBIT}}{\text{Net Sales}} \times 100$$

Table-VI: Statement Showing Operating Profit Ratio

Year	ITC (%)	Year	HUL (%)
2004	26.80	2003	17.91
2005	38.48	2004	13.26
2006	37.65	2005	11.92
2007	35.47	2006	12.54
2008	34.78	2007	12.65
2009	33.02	2008-2009	12.21
2010	36.25	2009-2010	13.42
2011	37.32	2010-2011	10.91
2012	39.05	2011-2012	13.88
2013	39.60	2012-2013	14.68
Arithmetic Mean	35.84	Arithmetic Mean	13.34
Avg Annual Growth Rate (%)	4.78	Avg Annual Growth Rate (%)	-1.80
S.D (σ)	3.77	S.D (σ)	1.92

Source: Compiled from the annual reports of ITC and HUL Ltd.

INTERPRETATION

ITC: The above table shows the earning capacity of the firm. Operating Profit ratio also showed an increasing tendency during the period of study. It had a mean value of 35.84 % with an average annual growth rate of 4.78%. The highest ratio of 39.60% was observed in 2013 and least of 26.80 in 2004. The ratio had a low degree of standard deviation with value of 3.77.

HUL: Operating profit ratio also showed similar fluctuating tendency like the above ratios. It had a mean value of 13.34% with a negative average annual growth rate of -1.80%. The highest ratio of 17.91% was observed in 2003 and least of 10.91 in 2010-11. The firm maintained the highest operating profit of `3963.76 Crores in 2012-13 and the least of `1318.88 in 2005. Operating profit had an average value of `2197.52 Crores with an average annual growth rate of 11.83%. The ratio had a low degree of standard deviation with value of 1.92.

RISK ANALYSIS OF HUL

The risk associated with the concern can be calculated by the following method:

$$R_k = \frac{(E+ LTL) - FA}{CA}$$

CA

Where R_k = risk

E = Equity + Reserve % Surplus

L = Long term loan

FA= Fixed Assets

CA= Current assets

In the aggressive approach the current assets are financed by short term sources and in case of conservative approach the current assets are financed by both long term and short term sources. The risk faced by the firm can be measured with the above formula

Table-VII: Statement Showing Risk

Year	ITC (%)	Year	HUL (%)
2004	92.75	2003	73
2005	118.39	2004	64
2006	97.24	2005	35
2007	93.7	2006	44
2008	86.95	2007	1.5
2009	81.37	2008-2009	15.7
2010	74.18	2009-2010	8
2011	75.56	2010-2011	7.7
2012	67.64	2011-2012	29
2013	63.35	2012-2013	20
Arithmetic Mean	85.11	Arithmetic Mean	29.79
Avg Annual Growth Rate (%)	-3.17	Avg Annual Growth Rate (%)	-7.26
S.D (σ)	16.31	S.D (σ)	24.32

Source: Compiled from the annual reports of ITC and HUL Ltd.

INTERPRETATION

ITC During the period of Study concern’s highest risk of 118.39% generated a return of 38.48% and the least risk of 63.35% generated a return of 39.60%. The risk taken by the company showed a decreasing tendency from 2004-05 onwards. The average risk taken by the company was 85.11% with a negative average annual growth rate of -3.17. The standard deviation of the risk taken by firm during the period of the study was 16.31.

HUL: During the period of Study concern’s highest risk of 73% generated a return of 17.91% and the least risk of 12.65% generated a return of 1.5%. The risk taken by the company showed a decreasing tendency from 2004-05 onwards. The average risk taken by the company was 29.79% with a negative average annual growth rate of -7.26. The standard deviation of the risk taken by firm during the period of the study was 24.32.

X. ANALYSIS OF LIQUIDITY, PROFITABILITY AND RISK USING SPEARMAN’S RANK CORRELATION AND STUDENT T-TEST

Spearman’s rank correlation is the relationship between different rankings of the same set of items. A rank correlation coefficient measures the degree of similarity between two rankings, and can be used to assess its significance.

$$r = 1 - \frac{6 \sum D^2}{n(n^2-1)}$$

Where D= R1-R2, R= Rank

Student t – Distribution is a small test used for testing of hypotheses of sample size less than 30. If the calculated value of t is less than the table value. The null hypotheses will be accepted and vice-verse; for a given significance level. It can be calculated as follow:

$$t = \frac{r}{\sqrt{1-r^2}} \times \sqrt{n-2}$$

Where r = Spearman’s Rank Coefficient of Correlation
n = No. Observation

TESTING OF IST NULL HYPOTHESIS

Table VIII

Companies	ITC		HUL
Variables	Working Capital and Operating Profit	and	Working Capital and Operating Profit
Rank Correlation r	0.39		0.52
Calculated t value	1.21		1.70
Table Value of t	2.305		2.305
Significance Level	5%		5%
Significant	Yes		Yes

Source: Compiled from the annual reports of ITC and HUL Ltd.

INTERPRETATION

ITC: The Spearman’s rank coefficient of correlation (r) between Working Capital & Operating Profit ratio has been calculated. The “t” test is applied for determining significance of r. Then computed value of ‘t’ has been compared with the tabulated value of ‘t’. In the above table r= 0.39 and value of t = 1.21. The table value of ‘t’ at 5% level of significance for 8 degrees of freedom (Where n=10) is equal to 2.305. Since the computed value of t is less than the table value the null hypothesis (Ho) is accepted and alternate hypothesis is rejected.

HUL The Spearman’s rank coefficient of correlation (r) between Working Capital & Operating Profit ratio has been calculated. The “t” test is applied for determining significance of r. Then computed value of ‘t’ has been compared with the tabulated value of ‘t’. In the above table r= 0.52 and value of t = 1.70. The table value of ‘t’ at 5% level of significance for 8 degrees of freedom (Where n=10) is equal to 2.305. Since the computed value of t is less than the table value the null hypothesis (Ho) is accepted and alternate hypothesis is rejected.

Testing of IInd Null Hypothesis

Table IX

Companies	ITC	HUL
Variables	Current ratio and Operating Profit	Current ratio and Operating Profit
Rank Correlation r	0.18	0.52
Calculated t value	0.50	1.70
Table Value of t	2.305	2.305
Significance Level	5%	5%
Significant	Yes	Yes

Source: Compiled from the annual reports of ITC and HUL Ltd

INTERPRETATION

ITC: The Spearman’s rank coefficient of correlation (r) between Current Ratio & Operating Profit ratio has been calculated. The “t” test is applied for determining significance of r. Then computed value of ‘t’ has been compared with the tabulated value of ‘t’. In the above table r= 0.18 and value of t = 0.50. The table value of ‘t’ at 5% level of significance for 8 degrees of freedom (Where n=10) is equal to 2.305. Since the computed value of t is less than the table value the null hypothesis (Ho) is accepted and alternate hypothesis is rejected.

HUL The Spearman’s rank coefficient of correlation (r) between Current Ratio & Operating Profit ratio has been calculated. The “t” test is applied for determining significance of r. Then computed value of ‘t’ has been compared with the tabulated value of ‘t’. In the above table r= 0.52 and value of t = 1.70. The table value of ‘t’ at 5% level of significance for 8 degrees of freedom (Where n=10) is equal to 2.305. Since the computed value of t is less than the table value the null hypothesis (Ho) is accepted and alternate hypothesis is rejected.

Testing of IIIrd Null Hypothesis

Table X

Companies	ITC	HUL
Variables	Risk and Operating Profit	Risk and Operating Profit
Rank Correlation r	0.31	-0.37
Calculated t value	0.92	1.12
Table Value of t	2.305	2.305
Significance Level	5%	5%
Significant	Yes	Yes

Source: Compiled from the annual reports of ITC and HUL Ltd

INTERPRETATION

ITC: The Spearman's rank coefficient of correlation (r) between Operating Profit ratio & Risk factor has been calculated. The "t" test is applied for determining significance of r. Then computed value of 't' has been compared with the tabulated value of 't'. In the above table $r = 0.31$ and value of $t = 0.92$. The table value of 't' at 5% level of significance for 8 degrees of freedom (Where $n=10$) is equal to 2.305. Since the computed value of t is less than the table value the null hypothesis (H_0) is accepted and alternate hypothesis is rejected.

HUL The Spearman's rank coefficient of correlation (r) between Operating Profit ratio & Risk factor has been calculated. The "t" test is applied for determining significance of r. Then computed value of 't' has been compared with the tabulated value of 't'. In the above table $r = -0.37$ and value of $t = 1.12$. The table value of 't' at 5% level of significance for 8 degrees of freedom (Where $n=10$) is equal to 2.305. Since the computed value of t is less than the table value the null hypothesis (H_0) is accepted and alternate hypothesis is rejected.

XI. FINDINGS AND SUGGESTIONS

- The Net working Capital of ITC during the period of study was satisfactory even though it showed frequent fluctuations in its values. Except in the first year of study it had a positive direction of its working. ITC must try to keep regular check to ensure that excess cash is not locked up in it.

The Net working Capital of HUL during the period of study was adequate as it showed frequent fluctuations in its values. It was negative during the first eight years of study, which shows that company was able to use outsider's fund. HUL must strongly keep regular check on its working capital, so as to continue its operations without any discrepancies.

- Liquidity position of ITC was moderate because the average value of this Current Ratio was 1.40 times which is below the ideal ratio of 2:1 times. Which indicates that, even though it is in a position to meet its short term obligations with the existing current assets, but it is in the verge of break even? So the firm must increase the position of its current assets to maintain a current ratio of at least the ideal value.

Liquidity position of HUL was not adequate because the average value of this Current Ratio was only 0.87 times which is well below the ideal ratio of 2:1 times. This indicates that, even though it is in not in a position to meet its short term obligations with the existing current assets. So the firm must increase the position of its current assets to maintain a current ratio of at least the ideal value, else it will become unstable to withstand its obligations.

- The Liquid ratio of ITC was also not up to the level due to a lower amount of liquid assets during the period of study. The arithmetic mean of the liquid ratio was 0.73 times which is below the ideal value of 1:1 times. So the firm should maintain the liquid assets atleast to the current liabilities to stabilize the short solvency position.

The Liquid ratio of HUL was also not appreciable to the level due to a lower amount of liquid assets during the period of study. The arithmetic mean of the liquid ratio was 0.50 times which is only half the ideal value of 1:1 times. So the firm should increase the portion of the liquid assets to stabilize the short solvency position.

- The cash position ratio of ITC was also not satisfactory as it was not able to generate adequate amount of cash from its assets. The average value of the ratio was only 0.05 times. The firm must try to keep regular check on its assets to identify whether they are staying idle or obsolete. Only the liquid cash will help the firm to face any uncertainties at the times of emergencies.

The cash position ratio of HUL was also moderate as it was able to generate a better amount of cash from its assets. The average value of the ratio was only 0.33 times. The firm must try to keep regular check on its assets to identify whether they are staying idle or obsolete.

- Working capital turnover ratio of ITC was satisfactory as it was able to generate on an average 8 times the amount of working capital deployed. It should try to at least maintain this situation or to increase its sales turnover.

Working capital turnover ratio of HUL was not satisfactory as it was able to generate on an average -3.26 times the amount of working capital deployed. It should try to improve this situation or to increase its sales turnover.

- The profitability position of ITC was satisfactory because its operating profitability position was 36.78% of its turnover, which is well above the risk free bank rate. The capital employed in the firm was appropriately used. It should maintain and stabilize the present profitability position.

The profitability position of HUL was not satisfactory because its operating profitability position was 13.34% of its turnover, which is near the risk free bank rate. The capital employed in the firm was not appropriately used. It should stabilize the present profitability position. It should increase the earning capacity of its idle assets.

- When student's t test was applied between Working Capital and Profitability, it showed that the calculated value of t is less than the table value of t. Hence the null hypothesis was accepted and alternate hypothesis was rejected. It says that there was no significant difference between Working Capital and profitability of the firm during the period of research study. Also the correlation between the two variables was low, i.e. the proportionate variation between the two was low in the same direction.

When student's t test was applied between Working capital and Profitability, it showed that the calculated value of t is less than the table value of t. Hence the null hypothesis is accepted and alternate hypothesis was rejected. It says that there was no significant difference between Working Capital and profitability of the firm during the period of research study. Also the correlation between the two variables was moderate, i.e. the proportionate variation between the two was moderate positive correlation.

- Applying of student's t test between Current Ratio and profitability of ITC, it showed that the calculated value of t is less than the table value of t. Hence the null hypothesis was accepted and alternate hypothesis was rejected. It says that there was no significant difference between liquidity and profitability of the firm during the period of research study. Also the correlation between the two variables was very low, i.e. the proportionate variation between the two was very low in the same direction.

Applying of student's t test between Current Ratio and Profitability of HUL, it showed that the calculated value of t is less than the table value of t. Hence the null hypothesis is accepted and alternate hypothesis was rejected. It says that there was no significant difference between liquidity and profitability of the firm during the period of research study. . Also the correlation between the two variables was moderate, i.e. the proportionate variation between the two was moderate in the same direction.

- When student's t test was applied between Risk and Profitability of ITC, it showed that the calculated value of t is less than the table value of t. Hence the null hypothesis was accepted and alternate hypothesis was rejected. It says that there was no significant difference between profitability and risk of the firm during the period of research study. the correlation between the two variables was low, i.e. the proportionate variation between the two was low in the same direction.

When student's t test was applied between Risk and Profitability of HUL, it showed that the calculated value of t is less than the table value of t. Hence the null hypothesis is accepted and alternate hypothesis was rejected. It says that there was no significant difference between risk and profitability of the firm during the period of research study. The rank correlation coefficient showed a moderate negative value i.e. higher the risk taken by HUL lower was the profitability which is not worthwhile for the firm.

- The analysis of standard deviation among the ratios showed that HUL had a high degree of variability. This indicates that ratios values of HUL showed lesser consistency than that of ITC during the period of study.

Since the amount and risk involved in capital investment decision are very high, the firms give little importance to the issues related with working capital. From the above study it is clear that financial stability of ITC is much stronger than that of HUL. So HUL must give more concentration towards its working capital management

policies. HUL must improve its present liquidity position to remain stable at the time of discrepancies or recession. It should also try to generate higher returns from its assets. The company must keep an optimum balance between liquidity and profitability for efficient use of its working capital. At the same time it should not stop formulating certain policies to keep a well-monitored working capital for better profitability, stability, reliability, growth and consistency.

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**AN INSIGHT INTO HUMAN RESOURCE ACCOUNTING MODELS –
NEED TO MEASURE HUMAN RESOURCE AS AN VALUABLE ASSET****Dr. Abid Yunus Salati**Associate Professor, S. S. Danchand Ghodawat Charitable Trust's Group of Institutes, Kolhapur

ABSTRACT

The success of any organization is contributed by physical, financial and human resources; however, the contribution of human resources is not truly recognized by traditional accounts. The traditional accounting practices consider human resource as an item of expense (just like any other revenue expenditure) and not as an asset. Therefore, only physical and monetary assets are included in financial statements. Thus, by expensing such a resource, the matching concept and by not disclosing the human resource as an asset, the convention of disclosure is violated by financial accounts. The absence of human resource as an asset in the balance sheet violates the accrual principles, discards matching principles, defies the principle of disclosure, and underrates the firm's net worth current income and thereby not reflecting the true and fair view of the organization (Verma, 1999).

This paper is an attempt to discuss some Human resource accounting models and exhibit its practical implementation (a HRA model adopted in SAIL) in measuring Human as an asset and live pillars of organizations.

Key words: Traditional accounting practices, physical and monetary assets, Human Resource Accounting.

HUMAN RESOURCE MANAGEMENT AS AN ASSET

Assets signify economic resources of an enterprise that are accepted and considered in conformity with generally accepted accounting principles. The Institute of Chartered Accountants of India defines assets as “tangible objects or intangible rights owned by an enterprise and carrying probable future benefits”.

Human resources are not only the assets but the live pillars of any organization, because:

- a) Even though the services of human resources cannot be stored, those can be received and used simultaneously. The organization has the right to receive the services during the tenure of their service.
- b) Ownership is not so important because both the entities (organization and human resources) are legally bound to protect each other. At the same time, the particular organization can control the human resources as long as they are in the service.
- c) The organization can receive the services of human resources as long as they are in their jobs. Thus, they are the present assets; their services are intangible and can be used by the organization.

Even though, attempts were made by many thinkers in this field years ago, the real work regarding consideration of human resource as an asset had started only after the evolution of behavioral approach after 1960. Many models are available under the title Human Resource Accounting (HRA). Some models have been discussed as follows:

COST BASED MODELS

The cost based approach focuses on cost parameters.

1. The Historical Cost Model of Brummet and others suggests that the actual cost incurred on recruiting, selecting, hiring, training and developing the human resources of an organization are capitalized and amortized over the expected useful life of the human resources (Mamoria and Gavkar, 2001). The amortization and write off policies of conventional accounting methods shall be applied to human assets as well (Rao, 1993). This model was implemented by Barry Corporation of U.S. during 1968-1974.
2. The Replacement Cost Method advocates capitalizing and amortizing the replacement costs that would have to be incurred today to replace the existing employees with the substitutes capable of doing or performing an equivalent set of services. Replacement could mean personal replacement of the employee with another employee or replacing the particular skills of an employee with those of another. Critics argued that “It was difficult to assess the replacement cost of the employees as the value, which they generated over a period of time and their contribution to the organization was difficult to measure in relation to the cost incurred to employ them. It was also felt that replacement cost was applicable and valid only for key employees in the organization.

MONETARY VALUE- BASED MODELS

1. Harmanson's Adjusted Discount Future Wages Method suggests that the total present value of future salaries and wages multiplied by the average efficiency rate represents the estimated present value of human resources. A period of five years is considered for valuation purpose. According to this method the total present value of future salaries and wages multiplied by the average efficiency ratio represents the estimated present value of human resources.

An efficiency ratio is the weighted average ratio of the return on investment of the given firm to all the firms in the economy for a specified period – usually the current year and the preceding four years. Highest weight is given to the current year and in a diminishing manner to the remaining years, i.e. 5, 4, 3, 2, 1, etc. The efficiency ratio is calculated with the help of following formula,

$$\text{Efficiency Ratio}^{13} = 5RF_0/RE_0 + 4RF_1/RE_1 + 3RF_2/RE_2 + 2RF_3/RE_3 + RF_4/RE_4$$

Where:

RF_0 = Return on firms assets for current year.

RE_0 = Return on assets of the economy for current year.

RF_1 = Return on firms assets for second year.

RE_1 = Return on assets of the economy for second year, and so on.

The model is criticized on the following grounds:

- a. The efficiency ratio is subjective.
 - b. The weighting scheme is purely arbitrary.
 - c. The valuation period of five years is also without justification.
2. The present value of Future Earnings Method of Lev and Schwartz valued human capital as the present value of the future earnings of the people till retirement. The companies in India adopting this model use to discount the future earnings at the rate of cost of capital. The present value of the future earning model is also known as economic model.

Given the uncertainty and the difficulty associated with determination of the value of human capital, Lev and Schwartz have suggested the use of an individual employee's future compensation as a substitute of his value. They have given the following formula for calculating the value of human resources.

$$V_x = \sum_{t=x}^T I(t) / (1+r)^{t-x}$$

Where:

V_x = the human capital value of a person x year old

$I(t)$ = the person's annual earnings up to the retirement

r = a discount rate specific to the person

T = retirement age

The experts have criticized the model on the grounds that the model is based on the strong assumption of continuity of service of an employee till retirement and that too without making role changes, which seems to be highly unrealistic. They further felt that "Assigning a definite value to each individual may not be proper because the knowledge of each individual differed from that of another".

3. Stochastic Rewards Valuation Model advocated by Flamholtz is based on the presumption that a person's value to an organization depends on the positions to be occupied by him in the organization. The movement of people from one organizational role to another is a stochastic process with rewards.

There were four steps in the valuation of human assets:

- i. Employee Mapping into Service States.
- ii. Determination of the number of years of tenure in each service state.
- iii. Estimate the wage rates relevant to each service state.
- iv. Estimation of the human resource value.

The movement of manager from one level in hierarchy to another is a stochastic process with rewards. He considered the movement of employees from one position to another over a time period. The value of human resource as established by Flamholtz is equal to the present value of future rewards adjusted with the probability of mobility and separation. "As people move and occupy different organizational roles (i.e.

service states), they render services (i.e. rewards) to the organization. However, the roles they will occupy in future will have to be determined probabilistically for each individual”.

The demerits of this model are that “there are many difficulties in the application of this model such as obtaining valid data regarding the value of a service state, a person’s expected tenure and probabilities of occupying various service states at specified times”

4. According to the Net Benefit Model suggested by Morse, the value of human resources is equivalent to the present value of net benefits derived by the organization from the service of its employees. The value of human resources under this model is calculated in the following manner.

Net Benefit = Gross value of services rendered by employees
Less (-) Total Future payment to be made to employees

5. Certainty Equivalent Net Benefit Model of Ogan is an extension of Net Benefit Model. According to this model, the certainty with which the net benefits in future will accrue should also be taken into account while determining the value of human resources. The net benefits from all the employees multiplied by their certainty factor will give certainty equivalent net benefits.

Monetary Value Based Models suggest that the future salaries and wages are to be projected considering the promotional policies, annual increments, periodical agreements etc., and the present value of such projected salaries and wages are to be calculated. This calculated present value of future earnings is called as the Value of Human Resources. In order to calculate the value of human resources different models use different formulae. The methods of calculation and duration of valuation are different in different models.

(A) Non-Monetary Value- Based Models:

1. Causal, Intervening and End-Result Varia Model suggests that if a meaningful relationship among the three (causal, intervening and end – results) variables is established, the trend in earnings can be predicted. The predicted earnings can be discounted to determine the present value of the firm and the human resources.
2. In case of Statistical Based Model, no accounting is involved but descriptive information containing statistics about human resources are collected, used and presented as per the requirement of management.

HUMAN RESOURCE ACCOUNTING IN THE INDIAN SCENARIO

It is recognized that Human Resource Accounting (HRA) is in its infancy stage in our country. However, some interest has been shown by a few Indian companies in this concept and some organizations have also attempted to value their human resources.

It is vividly observed that the companies following HRA spare a separate section in their annual reports (un-audited) for a detailed account of their human resources. Companies like Steel Authority of India Limited (SAIL) have adopted Flamholtz’s Stochastic Rewards Valuation Model”

SAIL'S HRA MODEL

SAIL valued its human resources based on Flamholtz's Stochastic Rewards Valuation Model. According to this model there were four steps in the valuation of human assets.

Step 1

The first step is grouping all the employees of the organization into different service states. The employees are grouped into six different levels, namely, Managers, Executives, Officers and Supervisory Staff, Administrative Departmental Staff, Skilled Workers and Semiskilled Workers. Each of the above mentioned levels are again divided into different grades on certain criteria, which differed from company to company, called a “service state”. These service states are then re-grouped into various segments on the basis of the age of the employees.

Step 2

The second step is to determine the remaining number of years of service of an employee in the company in each service state. In this step, it is assumed that employees would retire after certain age and the employee turnover rate is also approximately estimated. Using this information, the number of remaining years of service of an employee is calculated. However, it is assumed that any vacancy arising out of transfer would be filled by those within the organization. It is also assumed that the total number of posts at any time in a particular service state would be fixed.

Step 3

Here, the remuneration that is to be spent in future on maintaining each service state is estimated according to the relevant age group. The remuneration rate is taken as the average of highest and lowest remuneration in each service state and included the basic pay, other allowances and social security benefits in the future. A provision is made for normal increase in remuneration and services by including an increment multiplier, approximately 5 per cent per annum. This annual increment is also taken in calculating the remuneration rate. A provision is also made to include occasional or frequent wage hikes and dearness allowances during inflation. Individual discrepancies arising out of leave pay, overtime work and target specific incentive payments are ignored.

Step 4

The fourth step is the assessment of the total human resources value of the organization. In this step, the number of employees working in each service state is multiplied with three indices, viz., and number of remaining years of service, the remuneration rate and the Employee Efficient Factor (EEF). The total of all the individual service states is aggregated to arrive at the overall value of the human resources of the organization.

CONCLUSION

In spite of its benefits, a majority of companies in various industries in India were not valuing their human assets. One of the major reasons for not adopting HRA was that The Companies Act, 1956, did not have a provision for the inclusion of human assets value in the financial statements. Moreover, there was no legal requirement for Indian companies to publish their human resources accounting information. Due to the absence of a prescribed format and guidelines, the awareness level of this concept seemed to be very low. Thus, human resources should be valued properly and shown in the balance sheet and other financial statements of a business enterprise as valuable assets”.

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CYBER CRIME IN INDIA: ISSUES AND CHALLENGES**Dr. Sudhansu Ranjan Mohapatra**

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Cybercrime is one of the emerging branches of law which is becoming socially relevant at a rapid pace as it is the result of boom in Information technology whose impact is all pervasive and with far reaching consequences in different areas. In the era of globalization and liberalization, with the convergence and advent of new technologies, the traditional laws have become insufficient. With the advent of online transmission of electronic data, electronic commerce, mobile commerce and mobile communications, governance have become much popular and appreciated throughout the world. This has also attracted not only the educated but also general populous of the world. This boom has also made paper transaction outdated in the era of this communication explosion. Cyber space has no specific location and net users can visit the world with a fraction of seconds. The era of Globalization and liberalization has made e-commerce and e-governance the order of the day. It has become the sole media for global communication and has brought in a new type of crime which was completely unheard of before cyber criminal's very often unauthorized access; alter computer system, computer programme, software network and other related matters. This novel type of crime is posing a great harm to the society. The list of cybercrimes is not exhaustive rather it is expanding with every passing moment. Now it has reached such an alarming state that its prevention has not only become a national problem but also an international legal challenge. The Association of South East Asian Nations (ASEAN) Cyber Crime Unit, Interpol, European Union, and United Nations are fighting to prevent and control cyber terrorism. At the global level also UK, USA, Pakistan, Australia are trying to fight with this dangerous social evil worldwide.

NATURE OF CYBER CRIME:

The term 'cyber' is derived from the term 'cybernetic' which means science of communication and control over machine and man. Cyberspace is the new horizon which is controlled across the world. Therefore, crime committed in cyberspace relating to machines or devices or cyber technology related crimes are to be treated as cybercrimes. Information technology and electronic commerce are widely used to facilitate crime or to commit crime. In wide sense cybercrime is a crime on the internet which includes hacking, terrorism, fraud, illegal gambling, cyber stalking, cyber theft, forgery, flowing of viruses, cyber pornography.⁴⁶ According to Wingersky, Melvin, "It is very essential to emphasize here that the world is not run by weapons any more, or energy, or money. It is run by ones and zeros....little bits of data...it is all electrons. There's a war out there, a world war. It is not about who has the most bullets. It is about who controls the information-what we see and hear, how we work, what we think. It is all about information."⁴⁷ Cyber crime a threat to national and international socio-economic, political and security system.⁴⁸ According to Loader B.D..., a flexible communications system designed to withstand attack by means of rerouting message has also difficult for the governments to control. Sources illegal activity often requires advanced computer skills to be detected as a consequence of their anonymous character.⁴⁹

Professor S.T. Viswanathan has given three possible definitions of cybercrimes. They are: (1) any illegal action in which a computer is a tool or object of the crime. (2) Any incident associated with technology in which a victim suffered or could have suffered loss and a perpetrator by intention, made or could have made a gain. (3) Computer abuse is considered as any illegal, unethical or unauthorized behavior relating to the automatic processing and transmission of data.⁵⁰

Don Parker identified four forms of computer abuse namely; (1) computer might serve as the victim of crime; (2) computer might constitute the environment within which a crime is committed; (3) computer might provide

⁴⁶Dr. M. Dasgupta, Cyber Crime in India, 2009, EBC, p.8

⁴⁷A Treatise on Law of Crimes, (Challaghan and Co.) Chicago, 1958, p. 79

⁴⁸ D.Thimas & B.D.Loader: Cyber-crime law enforcement, security and Surveillance in the Information Age,, London & N.Y. Routledge, 2000, p. 3 as quoted in Dr. M. Dasgupta, Cyber Crime in India, 2009, EBC, p.9

⁴⁹Ibid.

⁵⁰S.T. Viswanathan, The Indian Cyber Laws: With Cyber Glossary, (BLH), New Delhi, 2001, p.81

the means by which a crime is committed; and (4) Computer might symbolically be used to intimate, deceive or defraud victims. There are several ways of classification of cybercrime.⁵¹ They are classified as (1) Unauthorized access, (2) Hacking and phishing, (3) cracking, (4) cyber fraud, (5) Cyber theft, (6) cyber terrorism, (7) Flowing of viruses, Trojan horses, Logic Bombs etc., (8) cyber pornography, defamation, (9) Cyber stalking and (10) Spamming.⁵²

Nobody is authorized to access or use unauthorized the computer, computer system, computer network of others to commit any cybercrime. This is as good as criminal trespass and attracts section 441 of the Indian Penal Code relating to Criminal Trespass. The Computer fraud and Abuse Act of 1984 were amended in 1996 to prevent and control cybercrimes in America. Section 65 of the Information Technology Act, 2000 in India prohibits tampering with computer source documents and prescribes punishments.

Cracking: Cracking is a type of fraud wherein the crackers maliciously hack the network security. They surreptitiously enter into the security system of to cause damage. The hackers normally have specialized ideas and skills about the computer system and using the expertise they create trouble into the computer system.

Hacking: To use the computers, the computer database system, network of others is considered as a crime under the cyber laws. Hackers originally are professionals in computer who adopted the word hack as a synonym for computer work executed with a certain level of craftsmanship. Hacking is a type of crime where hackers advance to sabotage, espionage, credit card theft and fraud after gaining unauthorized control of victim's computers or when they are recruited by serious criminals to advise and assist them. Now a day, the meaning has changed. To hack meant to break into or sabotage a computer system and a hacker was the perpetrator of such activities. Section 65 and 66 of the Information Technology Act, 2000 in India prohibits hacking and other cybercrimes. The Computer Misuse Act 1990 and Computer Fraud and Abuse act 1984 in USA prohibit hacking. Section 66 of the Information Technology Act says that (1) whoever with the intent to cause or knowing that he is likely to cause wrongful loss or damage to the public or any person destroys or deletes or alters any information residing in computer resource or diminishes its value or utility or affects it injuriously by any means commits hacking. (2) Whoever commits hacking shall be punished with imprisonment up to three years or with fine which may extend up to two lakh rupees or with both.

Hacking, therefore, unauthorized access to computer. When a person destroys or deletes or alters any information residing in a computer resource or diminishes its value or utility or affects it injuriously by any means with intent to cause or knowing that he is likely to cause wrongful loss or damage to the public or any person, he is said to have committed an offence of hacking.

FLOWING OF VIRUSES

Flowing of viruses is a type of cybercrime wherein the criminals flow programmes through computer network by human agents such as virus, Trojan horse, logic Bombs etc. To cause damage, alter; destroy computer, computer system, computer databases. They are popularly known as file infectors through spreadsheet programmes or games. The England Court in the case of R v. Thompson⁵³ held that 'Logic Bomb' is a kind of imputation of a programme into the computer with the intention that when the leaving data was entered into the system on that day this input will cause message which is to be displayed on the screen. Sometimes it may cause more harm and even collapse the system because flowing computer viruses are notorious form of misconduct or misuse which are transmittable from one computer to another computer.

STALKING:

Cyber stalking involves using the Internet, cell phone, and/or any other electronic communication device to stalk another person. It may involve threats, identity theft and damage to data or equipment, solicitation of minors for sexual purposes, and any other form of repeated offensive behavior. There are a number of definitions of stalking that exist, each differing slightly. Stalking as "a course of conduct directed at a specific person that involves repeated (two or more occasions) visual or physical proximity, nonconsensual communication, or verbal, written, or implied threats, or a combination thereof, that would cause a reasonable

⁵¹Don Parker: Crime by Computer, (NY:Scribner) 1976 cited in Dr. M. Dasgupta, Cyber Crime in India, 2009, EBC, P. 12

⁵²Dr. M. Dasgupta, Cyber Crime in India, 2009, EBC, p.12

⁵³ (1984) 3 All ER 565

person fear". It is interesting that the definition excludes most electronic forms of stalking as there is often a lack of visual or physical proximity in such cases.⁵⁴

The definition used in the British Crime Survey⁵⁵ is that stalking is "two or more incidents causing distress, fear or alarm of obscene/threatening unwanted letters or phone calls, waiting or loitering around home or workplace, following or watching, or interfering with, or damaging personal property carried out by any person." In parallel, the psychiatric literature has defined stalking as a course of conduct by which one person repeatedly inflicts on another unwanted intrusions to such an extent that the recipient fears for his or her safety.⁵⁶

CRIMINAL LAW (AMENDMENT) ACT, 2013

Before February, 2013, there were no laws to directly regulate cyberstalking in India. Indian Parliament in the year 2013 made amendments to the Indian Penal Code, 1860 making cyberstalking as a criminal offence.⁵⁷ After the Delhi gang rape case (Nirbhya case), the government of India took initiative to amend the Criminal laws and for the purpose, a committee under the chairmanship of Justice Verma was constituted. Basing upon the report of the committee, several new laws were introduced. The Criminal law (Amendment) Act, 2013 added Section 354D in the Indian Penal Code, 1860 to define and punish the act of stalking. The section is as follows:

Whoever follows a person and contacts, or attempts to contact such person to foster personal interaction repeatedly, despite a clear indication of disinterest by such person, or whoever monitors the use by a person of the internet, email or any other form of electronic communication or watches or spies on a person in a manner that results in a fear of violence or serious alarm or distress in the mind of such person, or interferes with the mental peace of such person, commits the offence of stalking:

Provided that the course of conduct will not amount to stalking if the person who pursued it shows-

that it was pursued for the purpose of preventing or detecting crime, and the person accused of stalking had been entrusted with the responsibility of prevention and detection of crime by the state; or

- (i) that it was pursued under any law or to comply with any condition or requirement imposed by any person under any law; or
- (ii) That in the particular circumstances the pursuit of the course of conduct was reasonable.

Whoever commits the offence of stalking shall be punished with imprisonment of either description for a term which shall not be less than 1 year but which may extend to 3 years, and shall also be liable to fine.

CYBER PORNOGRAPHY

we are somehow or other aware of cyber pornography, it has become a menace in the society. Even though section 67 of the Information Act 2000 prohibits cyber pornography, there is no specific rule has been made to prevent and control it. However, as per the Information Technology Act 2008, fine has been increased up to 5 lakhs and imprisonment reduced to 3 years for 1st instance and for subsequent instance fine of Rs. 10 lakhs and imprisonment up to 5 years. Two important cases need mention here. In the first case of Dr. L. Prakash⁵⁸, the Court convicted the accused under section 67 of the Information Technology Act. The accused was arrested by the Tamil Nadu police for forcefully making cyber pornographic images of his clients. In another case of Mr.

⁵⁴Patricia Tjaden and Nancy Thoennes, stalking in america: Findings from the National Violence against

Women Survey (1998), <http://www.ncjrs.gov/pdffiles/169592.pdf> as quoted in Bharati Law Review, Vol.II, Issue.I, 2013, p.88

⁵⁵ K Smith, K. Coleman, S. Eder and H.Hall, Homicides, Firearm Offences and Intimate violence, 2 CRIME IN ENGLAND AND WALES 1-97(2009/10.) as quoted in in Bharati Law Review, Vol.II, Issue.I, 2013, p.88

⁵⁶ Ibid, p.88

⁵⁷ Criminal law (Amendment) Act, No.13 of 2013

⁵⁸<http://www.naavi.org.www.ciol.com/cybercrimes/news etc.> accessed on 1.3.15

Jayesh S Thakkar v. State of Maharashtra⁵⁹ the High Court of Bombay acting upon a *suo moto* petition about a pornographic site on the internet passed an order appointing a committee to suggest and recommend ways for prevention and control of cyber-pornography. The court in the case of Life Insurance Corporation of India v. Prof. M.D.Shah⁶⁰ was of the opinion that the basic and fundamental right of individuals which they acquire by virtue of birth as human beings, and in a democratic country any attempt to gag this right except under Art. 19(2) is a violation of democracy and Art. 19(1) (a). Therefore, we can say rights are not absolute in this universe whether in the natural world or cyber world. Rights are subject to reasonable restrictions because without restrictions if rights are allowed it will ruin society.

Cyber terrorism: Cyber terrorism is a kind of cyber threat that has a great bearing throughout the world. The terrorists by using new technologies make targets. It has national as well as international repercussions. The incidents caused by the terrorists by attacking Indian parliament and world Trade Centre are the examples of cyber terrorism. Though the definition of cyber terrorism is not clear, the Information Technology (Amendment) Act 2008 by inserting section 66 F introduced Cyber Terrorism as an offence and prescribed life imprisonment. Following the United Nation's Model law 1997, the Computer Fraud and Abuse Act 1986 of the USA, the Computer Misuse Act 1990 and the Data Protection Act, 1984 of the UK, and International Convention and treaties, the Indian Parliament enacted and passed the Information Technology Act 2000 which was amended twice in the year 2006 and 2008 with the object to evolve world standard security measures to regulate cyber world and to prevent and control cybercrimes but not yet enforced.

The constitution of India is the basis and supreme law of the land and guarantees to citizens of India in Article 19(1) freedom of speech and expression. It provides that all the citizens have the right to freedom of speech and expression. Article 19(2) provides that in the interest of decency or morality reasonable restrictions may be imposed by law upon this freedom.

The Indian Penal Code in sections 292, 293 and 294 provide for limitations and prohibitions of certain things which are obscene with some exceptional cases. Section 292 prohibits sale, distribution, publication, export, import etc. of obscene books, pamphlets, papers, writing, drawings, painting, representations and the like except justifications under this section. Section 293 prohibits sale etc. of the obscene objects to young persons and prescribes punishments on first conviction with imprisonment for a term which may extend to three years and with fine which may extend to two thousand rupees, and on second conviction with imprisonment for a term which extend to two thousand rupees, and on second conviction with imprisonment for a term which may extend to seven years and also with fine which may extend to five thousand rupees. Section 294 prohibits obscene acts and songs to annoyance of others in or near any public place and prescribe punishments with imprisonment for term which may extend to three months or with fine or with both. Section 67 of the Information Technology Act 2000 is as follows:

whoever publishes or transmits or causes to be published in the electronic form, any material which is lascivious or appeals to the prurient interest or if its effect is such as to tend to deprive and corrupt persons who are likely, having regard to all relevant circumstances, to read, see or hear the matter contained or embodied in it, shall be punished on first conviction with imprisonment of either description for a term which may extend to five years and with fine which may extend to rupees one lakh and in the event of a second or subsequent conviction with imprisonment of either description for a term which may extend to ten years and also with fine which may extend to two lakh rupees.

CONCLUSIONS

Advent of Information technology in the era of globalization is beneficial for the society because a society is to be an informed society. It has made out daily life rather easier, quick and cheaper. Computers are in a number of ways beneficial for the society but it gives rise to a number of criminal activities. In the past starting from Parliament House attack to attack on world Trade Centre in America, we have experienced how it has encouraged the terrorists and other deviants in the society to use it as their tool to fulfil their ends. Therefore, stringent laws should be made to prevent its abuse. Very important is the need to create awareness on information technology education and training among people who use net. To check the crimes in cities where internet cafes are mushrooming, the café owners should be asked to file details of the visitors/. In this regard,

⁵⁹<http://www.cyberlaw.org/cybercrimes, www.opera.com> accessed on

⁶⁰AIR 1993 SC 171

the State of Karnataka has passed law requiring cyber café patrons to provide proof of identity and other details such as name, age, address, time of use etc.

Cybercrime is an emerging issue that corresponds with the improvement and expansion of the Internet. Apart from the individual lawsuits, public interest litigation is an important and viable legal method in India of ensuring justice and protection of the general public against cybercrime. Since the enactment of the Information Technology Act, several PIL law suits have been filed addressing issues such as online child pornography and Internet fraud. With the increased awareness among the masses about online crimes and offenses, a significant rise is expected in the number of lawsuits. These PILs will serve as powerful tool to curb online cybercrimes. In India, the National Association of software and Service Companies (NASSCOM) are working in association with the Ministry of Information Technology to fight such cybercrimes. A significant portion of the Indian information Act, 2000 is dedicated to adjudication, liability and defining the powers of the Cyber Regulations Appellate Tribunal.

But research has shown that no law can be put in place to effectively eradicate the scourge of cyber-crime. Attempts have been made locally and internationally but these laws still have short-comings. What constitutes a crime in a country may not be in another, so this has always made it easy for cyber criminals to go scot-free after being caught. Therefore to eradicate cyber-crime, it is required to harmonize international cooperation and the law. The terrorists cannot be fought by education because they are already established criminals. The only appropriate way to fight them is by enacting new laws and to harmonize international legislations and encourage coordination and cooperation between national law enforcement agencies.

PREVENTING JAMMING ATTACKS BASED ON JADE SYSTEM

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ABSTRACT

Wireless networking for emerging cyber-physical systems, in particular the smart grid, has been drawing increasing attention in that it has broad applications for time-critical message delivery among electronic devices on physical infrastructures. However, the shared nature of wireless channels unavoidably exposes the messages in transit to jamming attacks, which broadcast radio interference to affect the network availability of electronic equipments. An important, yet open research question is how to model and detect jamming attacks in such wireless networks, where communication traffic is more time-critical than that in conventional data-service networks, such as cellular and Wi-Fi networks. In this paper, we aim at modeling and detecting jamming attacks against time-critical wireless networks with applications to the smart grid. In contrast to communication networks where packets oriented metrics, such as packet loss and throughput are used to measure the network performance, we introduce a new metric, message invalidation ratio, to quantify the performance of time-critical applications. Our modeling approach is inspired by the similarity between the behavior of a jammer who attempts to disrupt the delivery of a time-critical message and the behavior of a gambler who intends to win a gambling game. Therefore, by gambling-based modeling and real-time experiments, we find that there exists a phase transition phenomenon for successful time-critical message delivery under a variety of jamming attacks. That is, as the probability that a packet is jammed increases from 0 to 1, the message invalidation ratio first increases slightly, then increases dramatically to 1. Based on analytical and experimental results, we design the Jamming Attack Detection based on Estimation (JADE) scheme to achieve robust jamming detection, and implement JADE in a wireless network for power substations in the smart grid.

Key Terms: Mobile computing, data security, Strong Hiding Commitment Scheme ,Cryptographic Puzzle Hiding Scheme, Gambling-based model.

1. INTRODUCTION

Wireless is one of the most emerging and make most interactive part in the entire world. But the wireless transfer of the data is also very easy for the hacker to hacking. this the insecure transfer of the data is being mostly hacked by the hackers on the wireless network. However, the shared nature of wireless channels unavoidably exposes the messages in transit to jamming attacks, which broadcast radio interference to affect the network availability of electronic equipment's. An important, yet open research question is how to model and detect jamming attacks in such wireless networks, where communication traffic is more time-critical than that in conventional data-service networks, such as cellular and Wi-Fi networks.

In this paper, we aim at modeling and detecting jamming attacks against time-critical wireless networks with applications to the smart grid. In contrast to communication networks where packets oriented metrics, such as packet loss and throughput are used to measure the network performance, we introduce a new metric, message invalidation ratio, to quantify the performance of time-critical applications.

Our modeling approach is inspired by the similarity between the behavior of a jammer who attempts to disrupt the delivery of a time-critical message and the behavior of a gambler who intends to win a gambling game. the shared nature of wireless channels unavoidably exposes the messages in transit to jamming attacks, which broadcast radio interference to affect the network availability of electronic equipment's. Therefore, by gambling- based modeling and real-time experiments, we find that there exists a phase transition phenomenon for successful time-critical message delivery under a variety of jamming attacks. That is, as the probability that a packet is jammed increases from 0 to 1, the message invalidation ratio first increases slightly, then increases dramatically to 1. Based on analytical and experimental results, we design the Jamming Attack Detection based on Estimation (JADE) scheme to achieve robust jamming detection, and implement JADE in a wireless network for power substations in the smart grid. deployed by the Cloud Service Provider (CSP), no matter how secure they seem to be, in that it will provide the verifier a piece of direct, trustworthy and real-timed intelligence of the integrity of the cloud user's data through a challenge request. It is especially recommended that data auditing is to be conducted on a regular basis for the users who have high-level security demands over their data.

2. SCOPE OF PAPER

Scope of the project is to prevent the jamming node from classifying m in real time, thus mitigating J's ability to perform selective jamming. Our goal is to transform a selective jammer to a random one. To prevent jamming attacks in wireless network using Jamming Attack Detection based on Estimation (JADE) system.

2.1 MOBILE COMPUTING

Mobile computing is human-computer interaction by which a computer is expected to be transported during normal usage. Mobile computing involves mobile communication, mobile hardware, and mobile software. Communication issues include ad hoc and infrastructure networks as well as communication properties, protocols, data formats and concentrate technologies. Hardware includes mobile devices or device components. Mobile software deals with the characteristics and requirements of mobile application.

Mobile computing is a "talking computer and all necessary files and software out into the field".[1] There are several different dimensions under which mobile computers can be defined.[i] in terms of physical dimensions.[ii] in terms of how devices maybe hosted.[iii] in terms of when the mobility occurs.[iv] in terms of how devices are networked.[v] in terms of the type of computing that is performed.

A tablet or laptop computer connected via Wi-Fi can move while staying connected within the range of its WLAN transmitter. To move between multiple different located WLANs, the device must interrupt, suspend, or close its current user session before connecting to other WLAN transmitter in another session.

A device such as a tablet or mobile phone can move much further while staying connected within the range of GSM network as it can seamlessly move between multiple GSM transmitters or base stations. Mobile computer may also support or form part of a more local network that moves as the devices.

Some of the most common mobile computing devices are as follows. Portable computers, compact lightweight units. Mobile Phones including a restricted key set primarily intended but not restricted to for vocal communications. Smart cards that can run multiple applications but typically payment, travel and secure access.

2.2 SECURITY ISSUES INVOLVED IN MOBILE

Mobile security or mobile phone security has become increasingly important in mobile computing. It is of particular concern as it relates to the security of personal information now stored on the smartphone.

More and more users and businesses use smartphones as communication tools but also as a means of planning and organizing their work and private life. Within companies, these technologies are causing profound changes in the organization of information systems and therefore they have become the source of new risks. Indeed, smartphones collect and compile an increasing amount of sensitive information to which access must be controlled to protect the privacy of the user and the intellectual property of the company.

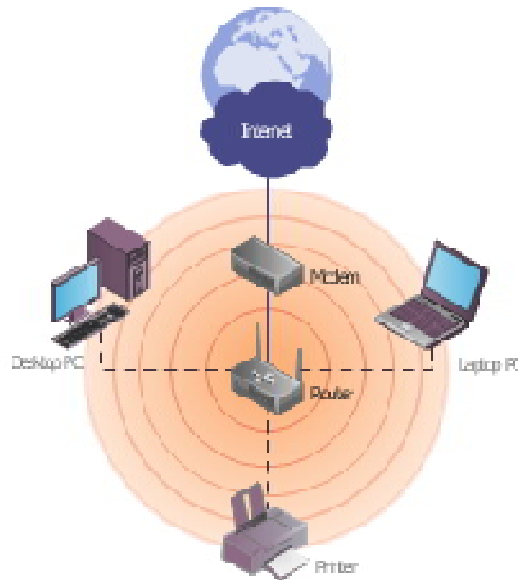
All smartphones, as computers, are preferred targets of attacks. These attacks exploit weaknesses related to smartphones that can come from means of communication like SMS, MMS, wifi networks, and GSM. There are also attacks that exploit software vulnerabilities from both the web browser and operating system. Finally, there are forms of malicious software that rely on the weak knowledge of average users.

Different security counter-measures are being developed and applied to smartphones, from security in different layers of software to the dissemination of information to end users. There are good practices to be observed at all levels, from design to use, through the development of operating systems, software layers, and downloadable apps.

2.3 WIRELESS DATA COMMUNICATIONS

Wireless data communications are an essential component of mobile computing.[11] The various available technologies differ in local availability, coverage range and performance,[12][13] and in some circumstances, users must be able to employ multiple connection types and switch between them. To simplify the experience for the user, connection manager software can be used,[14][15] or a mobile VPN deployed to handle the multiple connections as a secure, single virtual network.[16] Supporting technologies include:

Wi-Fi is a wireless local area network that enables portable computing devices to connect easily to the Internet.[17] Standardized as IEEE 802.11 a,b,g,n, Wi-Fi approaches speeds of some types of wired Ethernet. Wi-Fi has become the de facto standard for access in private homes, within offices, and at public hotspots.[18]



3. RELATED WORKS

There are two key observations that drive our modeling of reactive and non-reactive jammers. (i) In a time critical application, a message becomes invalid as long as the message delay D is greater than its delay threshold σ . Thus, we define a metric, message invalidation ratio, to quantify the impact of jamming attacks against the time critical application. (ii) When a retransmission mechanism is adopted, to successfully disrupt the delivery of a time-critical message, the jammer needs to jam each transmission attempt of this message until the delay D is greater than σ . As a result, such behavior of the jammer is exactly the same as the behavior of a gambler who intends to win each play in a game to collect enough fortune to achieve his gambling goal of σ dollars.

4. PROBLEM ANALYSIS

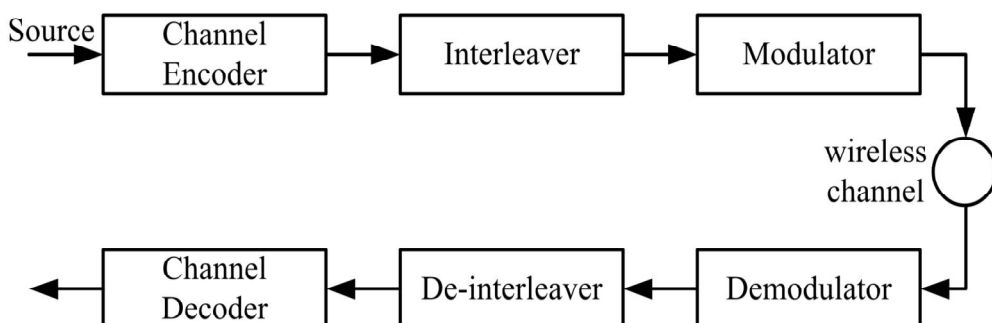
4.1 NETWORK MODULE

We address the problem of preventing the jamming node from classifying m in real time, thus mitigating J 's ability to perform selective jamming. The network consists of a collection of nodes connected via wireless links. Nodes may communicate directly if they are within communication range, or indirectly via multiple hops. Nodes communicate both in un-cast mode and broadcast mode. Communications can be either unencrypted or encrypted. For encrypted broadcast communications, symmetric keys are shared among all intended receivers. These keys are established using pre-shared pair-wise keys or asymmetric cryptography.

4.2 REAL TIME PACKET CLASSIFICATION

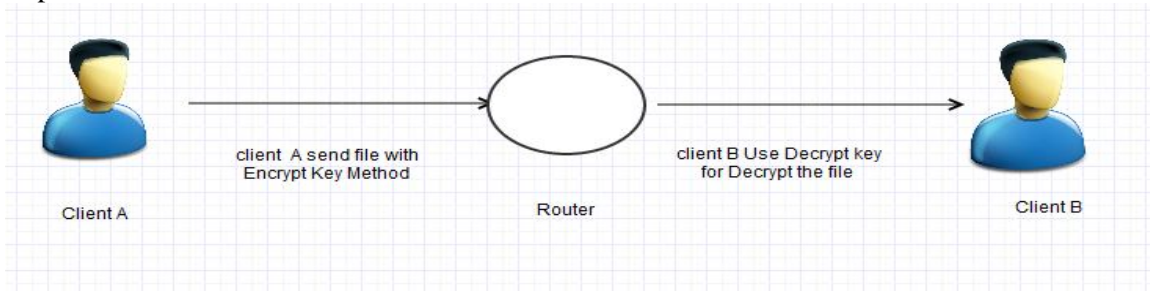
Consider the generic communication system depicted in Fig. At the PHY layer, a packet m is encoded, interleaved, and modulated before it is transmitted over the wireless channel. At the receiver, the signal is demodulated, deinterleaved, and decoded, to recover the original packet

Moreover, even if the encryption key of a hiding scheme were to remain secret, the static portions of a transmitted packet could potentially lead to packet classification. This is because for computationally-efficient encryption methods such as block encryption, the encryption of a prefix plaintext with the same key yields a static cipher text prefix. Hence, an adversary who is aware of the underlying protocol specifics (structure of the frame) can use the static cipher text portions of a transmitted packet to classify it.



1.3 SELECTIVE JAMMING MODULE

We illustrate the impact of selective jamming attacks on the network performance. Implement selective jamming attacks in two multi-hop wireless network scenarios. In the first scenario, the attacker targeted a TCP connection established over a multi-hop wireless route. In the second scenario, the jammer targeted network-layer control messages transmitted during the route establishment process selective jamming would be the encryption of transmitted packets (including headers) with a static key. However, for broadcast communications, this static decryption key must be known to all intended receivers and hence, is susceptible to compromise. An adversary in possession of the decryption key can start decrypting as early as the reception of the first cipher text block



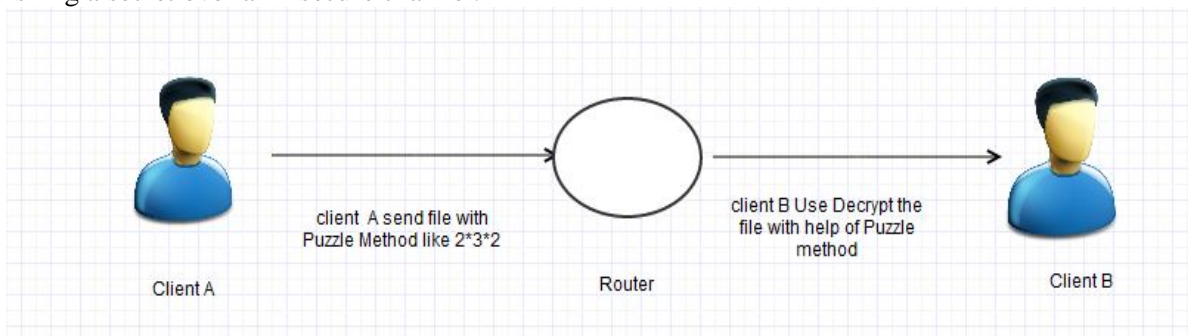
4.4 STRONG HIDING COMMITMENT SCHEME

We propose a strong hiding commitment scheme (SHCS), which is based on symmetric cryptography. Our main motivation is to satisfy the strong hiding property while keeping the computation and communication overhead to a minimum.

The computation overhead of SHCS is one symmetric encryption at the sender and one symmetric decryption at the receiver. Because the header information is permuted as a trailer and encrypted, all receivers in the vicinity of a sender must receive the entire packet and decrypt it, before the packet type and destination can be determined. However, in wireless protocols such as 802.11, the complete packet is received at the MAC layer before it is decided if the packet must be discarded or be further processed. If some parts of the MAC header are deemed not to be useful information to the jammer, they can remain unencrypted in the header of the packet, thus avoiding the decryption operation at the receiver.

4.5 CRYPTOGRAPHIC PUZZLE HIDING SCHEME

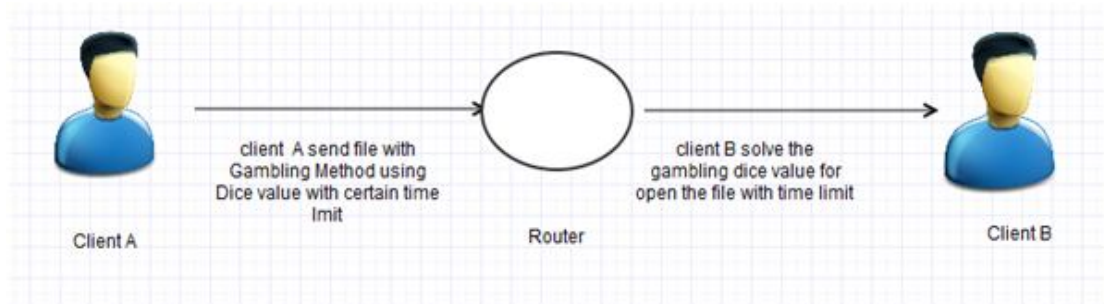
We present a packet hiding scheme based on cryptographic puzzles. The main idea behind such puzzles is to force the recipient of a puzzle execute a pre-defined set of computations before he is able to extract a secret of interest. The time required for obtaining the solution of a puzzle depends on its hardness and the computational ability of the solver. The advantage of the puzzle based scheme is that its security does not rely on the PHY layer parameters. However, it has higher computation and communication overhead. We consider several puzzle schemes as the basis for CPHS. For each scheme, we analyze the implementation details which impact security and performance. Cryptographic puzzles are primitives originally suggested by Merkle as a method for establishing a secret over an insecure channel.



4.6 GAMBLING-BASED MODEL

Motivated by the two observations, we develop a gambling-based model to derive the message invalidation ratio of the time-critical application under jamming attacks. We validate our analysis and further evaluate the impact of jamming attacks on an experimental power substation network by examining a set of use cases specified by the National Institute of Standards and Technology (NIST). reliable jamming detection for the experimental substation network.

5. OUR SCHEME



We develop a gambling-based model to derive the message invalidation ratio of the time-critical application under jamming attacks. We validate our analysis and further evaluate the impact of jamming attacks on an experimental power substation network by examining a set of use cases specified by the National Institute of Standards and Technology (NIST). Based on theoretical and experimental results, we design the jamming attack detection based on estimation (JADE) system to achieve efficient and reliable jamming detection for the experimental substation network. Our contributions in this paper are three-fold.

For reactive jamming, we find that there exists a phase transition phenomenon of message delivery performance: when jamming probability p (the probability that a physical transmission is jammed) increases, the message invalidation ratio first increases slightly (and is negligible in practice), then increases dramatically to 1. For non-reactive jamming, there exists a similar phenomenon: when the average jamming interval (the time interval between two non-reactive jamming pulses) increases, the message invalidation ratio first has the value of 1, then decreases dramatically to 0.

6. CONCLUSION

It provided an in-depth study on the impact of jamming attacks against time-critical smart grid applications by theoretical modeling and system experiments. We introduced a metric, message invalidation ratio, to quantify the impact of jamming attacks. We showed via both analytical analysis and real-time experiments that there exist phase transition phenomena in time-critical applications under a variety of jamming attacks. Based on our analysis and experiments, we designed the JADE system to achieve efficient and robust jamming detection for power networks.

7. FUTURE ENHANCEMENT

Here we prevent jamming attacks in particular network. In future work we will prevent jamming attacks in more networks and add broadcasting facility to multiple client and server.

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OVERVIEW OF HRM & ROLE OF LINE MANAGER IN HRM**D. P. Basu¹ and Nataraj Ray²**Faculty¹, Management Studies & LawResearch Scholar², Singhania University, Rajasthan

SYNOPSIS

“Human Resource” usually means development of human capital in terms of qualitative and quantitative. In the changing scenario HRM has to focus its attention on the basic skill development of the human assets or employee in an organization. In the present skills and capabilities should be assessed through assessment or performance appraisal systems. All competency models describe the knowledge skills and attitudes required for the effective performance of a job. The present discussion is on the large-scale organization who tried to be effective in its function for the improvement of organizational members according to the company policy.

Here lies the essence of the issues & concern of HRM in future. HRM has to face the challenge of bringing about a reconciliation of employee needs, management’s expectations and society’s requirement. In the changing scenario, the greatest challenge to HRM is that of placing the influence of these three major streams of influences – Reconciliation of employee needs, Management’s expectations and Society’s requirement.

In the present article, we discussed elaborately the role of line managers who create the organizational culture for their teams. If managers focus on their employees’ strengths and encourage open communication, they are more likely to engage and encourage their employees. Even where a company employs an HR specialist, it is line managers who have day-to-day responsibility for implementing HR initiatives.

The term “Human Resource” usually means total Quantitative & Qualitative human assets or people in an organization.

HRM ISSUES & CONCERNS IN FUTURE

Basic concern of human resource is not merely upgradation of skills, but to take care of the wholesome change in the environment the velocity of the technology revolution, the magnitude of information explosion and the organizational dynamics. As the globalization process is progressing at a breakneck speed, HRM must be consistent with the newly emerging techno-economic and social-cultural scenario.

In changing scenario – HRM has to focus its attention on the basic issues of its obligation to protect and enhance human resources, and its commitment to the task of improving QWL. In future HRM has to integrate all the major functions of an organization as well as integration of people into a work situation. So as to accomplish individual, organizational as well as societal objectives. Here lies the essence of the issues & concern of HRM in future.

CHALLENGES TO HRM

HRM has to face the challenge of bringing about a reconciliation of employee needs, management’s expectations and society’s requirement.

In the changing scenario, the greatest challenge to HRM is that of placing the Confluence of these three major streams of influences – Reconciliation of employee needs, Management’s expectations and Society’s requirement.

The skill in Understanding, predicting and controlling human and organizational behavior will become vital for HRM practitioners.

Increasingly committed to improve work culture and productivity by applying Behavioural Science Knowledge, have to face the challenge to create positive work climate.

GROWING CONCERN ABOUT TOTAL QUALITY MANAGEMENT (TQM)

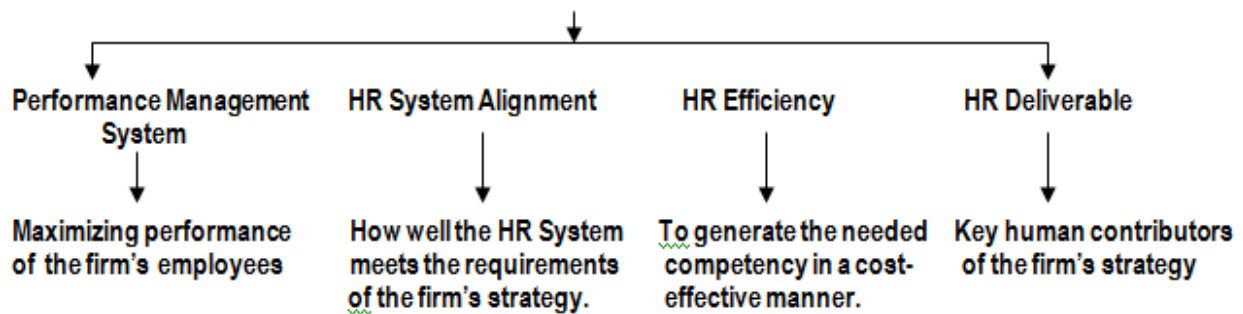
Challenge to increase participation and quality of life. Aim more for achieving relational harmony, rather than relational hierarchy among people and challenge to increase participation and quality of life.

DEVELOPMENT ROLE OF HUMAN RESOURCE MANAGERS

Developmental role of human resource management thus could be considered as an attempt to develop the capabilities of an employee as an individual. Healthy development of human resources and enhancement of human dignity and growth.

Primary focus of HRs strategic role is Value Creation. The firms are developing corporate Scorecard & HR Scorecard.

INDICATORS OF HR SCORECARD



Present skills and capabilities should be assessed through assessment and development centres.

COUNSELLING & COACHING SKILLS

Courses in this area will cover the required competencies – like counseling and coaching skills at par some other major companies, common to Supervisors and Managers. When a manager takes an active role in guiding another manager, this activity is referred to as coaching. Effectiveness of this method relies on the ability of the coach.

COMPETENCY

For effective job discharge, skill is prerequisite factor. It is called the Competency of the Employee. It includes skill, knowledge, experience, attitude and feed back. All competency models describe the knowledge skills and attitudes required for the effective performance of a job.

In case of individual, it is required to ensure the minimum acceptable performance in a position matching with various process of the organization like training, recruitment and job evaluation.

This is not a new idea/thought. In 1950 Benjamin Bloom of USA introduced this concept, subsequently other authors like David McClellan also made a major contribution in developing the concept for use of Business Organisation and making it an important management.Motives, self concept, traits, knowledge, skill varied from each other individual. Therefore the competency of a person often compared with “ICE BERG” as only a small portion is visible at the surface.

COMPETENCE & COMPETENCY

“Competence” means a skill and the standard of performance reached.

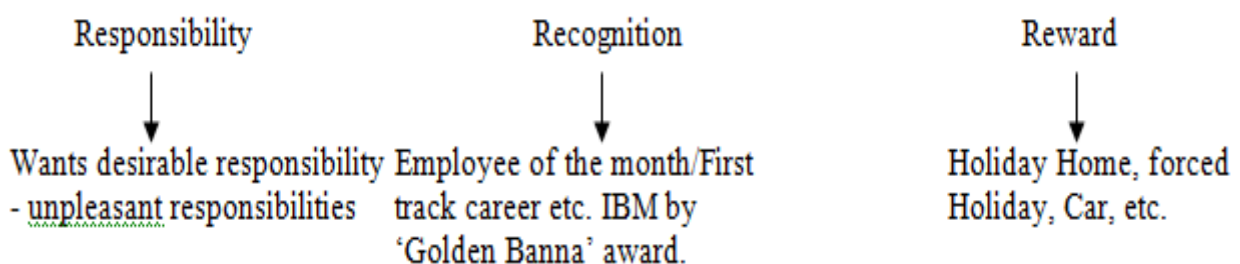
“Competency” means a behavior by which the skill and performance standard is reached.

Competency mapping is defined “as a process an individual uses to identify and describe competencies that are the most critical to success in a work situation or work role.” – Daniel Katz.

World of work, be it industry or agriculture, the achievement depends on the human factor called motivation.

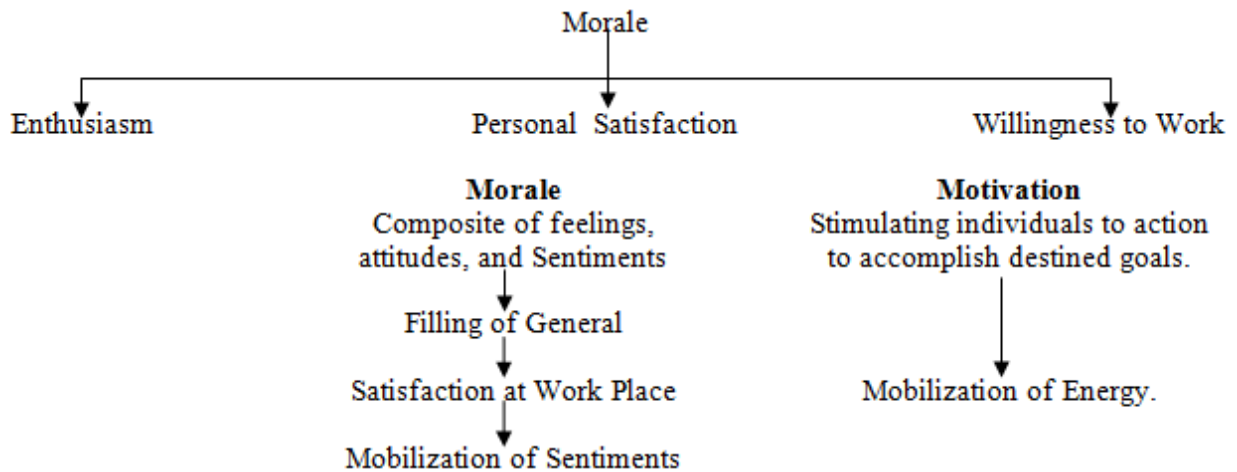
CARE 3 Rs

The question, there is why people do not work up to the desired level.



HR manager not Industrial Relations Man moreover as a “Business Partner”.

MORALE & MOTIVATION



High morale indeed an idea of good human relations in an organization. Total satisfaction, a person derives from his job, his workgroup, his boss, his organization and his environment.

DEVELOPING COMMITTEE

Individual get acquainted with each other. After knowing the goals of the team, the members make effort to achieve the same.

CHANGING BUSINESS SCENARIO AND ORGANISATINAL CULTURE

Today when we are on the verge of 21st Century, very rapid and unprecedented changes are occurring. Most of Managers to-day have recognized the inevitability of the rapid, pervasive and profound changes in several aspects of human life, only permanent part of their work life is “Change” itself. The changing global scenario has various forces, which are changing the new world politics and changing nature of competition.

Organisational will have to learn manage diversity. HR resource policies and practicing will have to change in order to attract and keep this more diverse work force. Socio-Economic & environmental changes influence an organization in the world of work, on their cultures, on their human resources, on their Quality Work of Life (QWL).

Under the circumstances stated above, HRM –

Reasonable, reconciliation of individual, organizational and social interests concerned with developing programmes that fulfill the interest for all the employees, organization and the society at large.

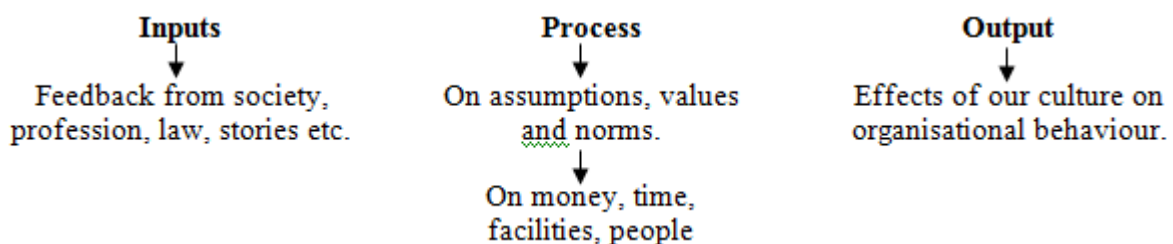
ORGANIZATIONAL CULTURE & LEARNING

Globalisation is a process by which capital, goods, services and sometimes labour cross national boundaries and acquire a transitional character What is needed in a fairer distribution of the fruits of globalization (A. Sen – Development as freedom – Oxford Press – N.D. 2002).

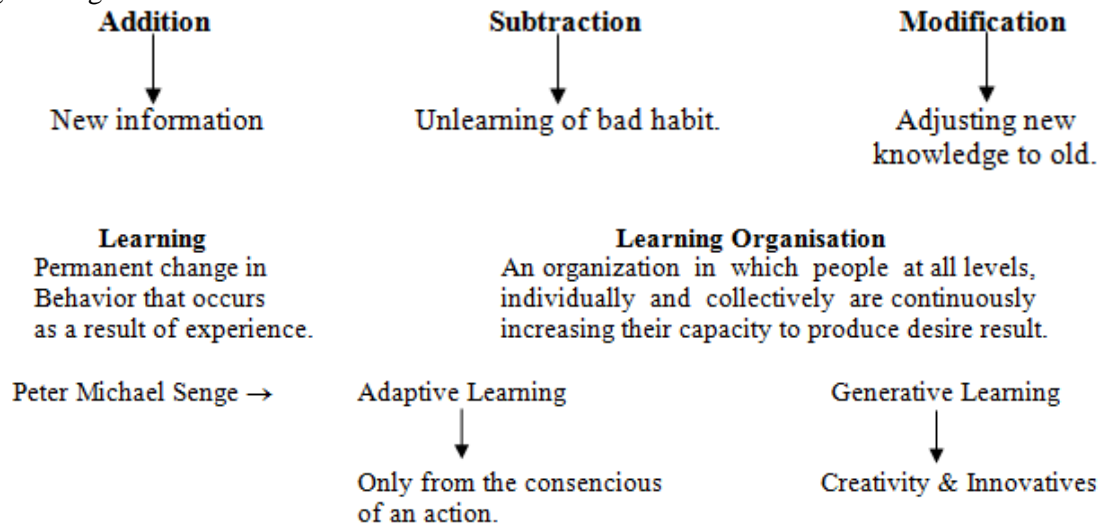
“Culture” has been adopted Latin word ‘cultura’ means ‘the result of human action’. The term organisational culture refers to a system that members share and that distinguishes the organisation from others.

O.C. Which human beings interpret their experience and guide their action.

Organisational culture is the personality of the organisation, corporate culture can be looked at as a system having



Most important topic in the world is Learning, a relatively permanent change in behavior. It is essential for knowledge management.



Organisations are becoming increasingly competitive, dynamic, innovative and productive.

To meet it successful – organisations need to innovate HR practices.

In the changing business world, HRM is undergoing massive transformation in the job titles and roles.

Future, HR jobs will be :

- Internal Customer Service
- Managing outsourcing
- Networking with stakeholders
- Transmission of Business Goals

BUILDING LEARNING ORGANISATION

Need for developing and retaining performing employee.

HR professionals read the winds of change.

Management principle should be Customers First, Employee Second and Investors Third.

Level 3 leadership – Leaders from Line. Find yours ‘He-Man’ from Within organizations & prepare them for CEO.

AUTHORITY RELATIONSHIP

Relationship is the cementing agent that binds the human elements to build up the structure on the organisation.

TYPE OF AUTHORITY

Line, Staff and Functional.

Line Authority → Old, drawn from Army.

Staff Authority → Renders his specialist level, it is more of service type. Idea of appointing staff. Authority became more popular since after great ‘Depression’.

As a Specialised Staff he is Staff Authority at the same time he has Line Authority over his own departmental subordinates. Real life force of the organisation operates through line authority and staff authority just assists it. Staff have the authority over ideas while line have authority over command.

“Staff think, lines do”

“Staff advise, lines work”

ROLE OF LINE MANAGERS

'Role' means Actor's part in a play, person's task and duty in an undertaking.

Line Managers have an important role to play in ensuring the realization of HRD objectives. Have responsibility to develop and utilize their employees.

In relation to development of employees, HRD department and Line Managers play complimentary role. Each supplement what others does.

TRAINING

Line Manager's responsibility is:

- (a) Analyse each role under him, outlining the managerial, technical & behavioural capabilities required to perform.
- (b) Identify training needs of each employee.
- (c) Encourage employee to take responsibility & provide opportunities for the same.
- (d) Provide continuous on-job coaching and help each employee develop problem solving skills.
- (e) Sponsor the subordinates for training.
- (f) Get feedback, after returning from training.
- (g) Help subordinate to learn to work as a team.

PERFORMANCE APPRAISAL

- (a) Identify and clarify key performance areas of subordinates.
- (b) Help subordinates, set challenging goals.
- (c) Help subordinates experience success.
- (d) Appraisal & counseling discussion.
- (e) Understand the difficulties of his subordinates to perform and provide necessary support.
- (f) Generate a climate of openness, mutual trust & use capabilities by subordinates.
- (g) Conduct timely appraisal.
- (h) Invest time on Performance Appraisal & review discussion.

ORGANISATION DEVELOPMENT

- (a) Identify sub-systems that need to be strengthened through Organisational Development (OD) efforts and bringing them to the note of HRD Dept. or top level.
- (b) Respond to organisational diagnosis surveys freely and frankly.
- (c) Participating actively in discussions arranged by process specialists.
- (d) Prepare realistic plans & implement them.

REINFORCEMENT

Retention of new capabilities or behavior learnt is possible only when they are reinforced.

- (a) Recognise the contributions of the subordinates and appreciate good performance.
- (b) Assign challenging functions and tasks.
- (c) Reward team work.
- (d) Encouraging interaction between employee & his immediate boss.

CAREER DEVELOPMENT

- (a) Identify career opportunities in the organisation for each of the subordinates.
- (b) Help the subordinates assess their own capabilities.
- (c) Give feedback to them about their potentials.
- (d) Encourage them to acquire & develop new potentials.

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- (e) Provide them opportunities to learn and develop new capabilities.
 - (f) Help them those who have reached saturation level and do not have any further career opportunities.
 - (g) Motivate employees by reminding them continuously, how their own contributions and performance, facilitate their growth.
 - (h) Organise job rotation through which employees will get opportunity to involve themselves in variety of jobs.

CONCLUSION

Hence, it can be said that the Role of Line Manager is vital in the growing concern & target activities or function of the organisation. for organizational development through changing business environment and organization Culture.

REFERENCE

- Some portion of the daily news paper – 2014.
- Business Magazine & Management Books.

STUDY AND EVALUATION OF STRATEGIC MANAGEMENT IN INDIAN CONSTRUCTION INDUSTRY**Naveen Thomas Abraham¹ and A. Arokia Prakash²**Student¹ & Assistant Professor², Construction Engineering and Management, SRM University, Chennai

1. ABSTRACT

Strategic Management is a concept that concerns with making decisions and taking corrective actions to achieve long term targets and goals of an organization. The importance of strategic management in a firm can be answered by analyzing relationship between strategic management and organizational performance. Generally strategic management can improve the efficiency in various organizations. The objective of this paper is to study and evaluation of strategic management in Indian construction industry. The Construction industry of India is an important indicator of the development as it creates investment opportunities across various related sectors. The construction industry has contributed an estimated INR 6708 billion to the national GDP (a share of around 8%). This paper introduces the need for the strategic management, the focus groups selected for the survey, the data tabulations, and the analysis of the data collected. A questioner survey was conducted in 40 construction companies based upon the results and the critical factors that affect the different phases of strategic management are mentioned. Finally, the paper addresses the need for action within these organizations to achieve a greater level of effectiveness in the area of strategic management.

Keywords: Construction industry, Data collection, Analysis Strategic Management, Organization Performance.

2. INTRODUCTION

Strategic Management is a concept that concerns with making decisions and taking corrective actions to achieve long term targets and goals of an organization. The importance of strategic management in a firm can be answered by analyzing relationship between strategic management and organizational performance. Generally strategic management can improve the efficiency in various organizations. The Construction industry of India is an important indicator of the development as it creates investment opportunities across various related sectors. This paper introduces the need for the strategic management, the focus groups selected for the survey, the data tabulations, and the analysis of the data collected. Finally, the paper addresses the need for action within these organizations to achieve a greater level of effectiveness in the area of strategic management. (McGraw-Hill Irwin, 2009). Strategic management involves the formulation and implementation of the major goals and initiatives taken by a company's top management on behalf of owners, based on consideration of resources and an assessment of the internal and external environments in which the organization competes. As a central component of long-term planning, the development of strategies is integrated into every facet of business organizations. The basic concept of strategy is that of an idea that sets in place a path that responds to multiple internal and external influences. In contrast to the execution and control plans developed for individual projects, strategies are concepts that contain no intrinsic steps to achieve the final destination. Originally developed by rulers and Military leaders attempting to broaden their empires, the concept of strategy can be traced to the beginnings of recorded history. (McGraw-Hill Irwin, 2009). Strategic management can be defined in various ways. According to Wheelen and Hungers' study (2006, 3), strategic management is a set of managerial decisions and actions that determines the long-term performance of a corporation. It involves environmental scanning (both external and internal), strategy formulation (strategic or long range planning), strategy implementation, and evaluation and control. They emphasize the analysing and evaluating of external opportunities and threats in terms of an organization's strengths and weaknesses. (Wheelen & Hunger 2006, 3.)

The main objectives of this paper is to study the practice of strategic management in Construction industry, identify the barriers in existing strategic management system and identify critical factors which helps in effective implementation of strategic management in construction industry.

3. PROBLEMS OF STRATEGIC MANAGEMENT IN CONSTRUCTION INDUSTRY

Poor strategic management in construction industry has a significant effect on following:

- Project Feasibility
- Project Schedule
- Human Resource Management
- Quality Control
- Controlling cost overrun

3.1 Project Feasibility

A Feasibility Study is the first stage of the product or service development cycle. Its aim is to analyse the viability of a proposed project, product or service. It analyses the proposed project, product or service with respect to the performance objectives expected by the organization, and may include an evaluation of a current system. The Feasibility Study may produce a cost benefit report and a project charter to be used as a guide during the analysis phase. A Feasibility Study is the process of defining exactly what a project is and what strategic issues need to be considered to assess its feasibility, or likelihood of succeeding. Feasibility Studies are useful both when starting a new business, and identifying a new opportunity for an existing business, such as a new product, service or branch. A key factor in any Feasibility Study must be ensuring that you are dealing with correct facts, correct assumptions and up to date financial data. Many projects fail because assumptions were based on incorrect facts. Rodney Overton (2010)

3.2 Project Schedule

Project scheduling is intended to match the resources of equipment, materials and labor with project work tasks over time. Good scheduling can eliminate problems due to production bottlenecks, facilitate the timely procurement of necessary materials, and otherwise insure the completion of a project as soon as possible. In contrast, poor scheduling can result in considerable waste as laborers and equipment wait for the availability of needed resources or the completion of preceding tasks. Many owners require detailed construction schedules to be submitted by contractors as a means of monitoring the work progress. The actual work performed is commonly compared to the schedule to determine if construction is proceeding satisfactorily. After the completion of construction, similar comparisons between the planned schedule and the actual accomplishments may be performed to allocate the liability for project delays due to changes requested by the owner, worker strikes or other unforeseen circumstances. Chris Hendrickson (2009)

3.3 Human Resource Management

Human Resource Management (HRM) is of strategic importance in all organizations. It contributes to the success of the organization and creates competitive advantage for the organization. The way HRM practices and policies take shape also affects the employee's experiences of work and the employment relationship. HRM is therefore important in any organization. Within the mainstream HRM literature, there is a long tradition of research arguing that in order to make an optimal contribution to firm performance, HRM policies and practices should be integrated both with firm strategy, so-called vertical strategic integration and with each other, so-called horizontal integration. The orientation of the HRM function, its goals and aims, need to be aligned with the strategy of the organization. If we consider "managing by projects" as the strategy of the project-oriented company this would imply that the HRM policies, processes, and practices in the project-oriented company are in some way supportive of project-oriented working and are different from more traditional HRM processes and practices which are designed for the classically-managed organization where the emphasis is not on projects but instead on routine products and services and where the job requirements are well defined and stable. J. Rodney Turner (2007)

3.4 Quality Control

Quality is the symbol of human civilization, and with the progress of human civilization, quality control will play an incomparable role in the business. It can be said that if there is no quality control, there is no economic benefit. Construction projects are an extremely complex process, involving a wide range. There are plenty of factors affecting the quality of construction, such as design, materials, machinery, topography, geology, hydrology, meteorology, construction technology, methods of operation, technical measures, management systems, and so on. Construction companies must adhere to the principle of quality first, and insist on quality standards, with the core of artificial control and prevention, to provide more high quality, safe, suitable, and economic composite products. Cao Ying (2010)

3.5 Controlling Cost Overrun

Construction industry now-a-days is facing severe problem of poor cost management resulting in huge amount of cost overrun. The problem of poor cost management and overrun in project cost is serious issue in both developed and developing countries. This needs serious attention for improving the construction cost performance as rarely projects are completed within budget. In order to explore the problem of cost performance in construction projects worldwide, Flyvbjerg et al. (2003) studied 258 projects in 20 nations with an approximate worth of US\$ 90 billion (size of projects range from US\$ 1.5 million to 8.5 billion) and found that cost escalation was a common practice and happens in almost nine out of 10 projects with an average of 28% higher than forecast costs. They concluded that average cost escalation in Europe was 25.7%, North America 23.6% and other geographical areas was 64.6%, while cost performance in construction projects has

not improved over time and it is in the same order of magnitude today as it was 70 years ago. World Bank also reported that 63% of the 1778 construction projects financed faced poor performance with overrun in budget at an average of 40% as cited by Amehet al. (2010) and Zujoet al. (2010).

4. METHODOLOGY

Methodology is the systematic, theoretical analysis of the methods applied to a field of study, or the theoretical analysis of the body of methods and principles associated with a branch of knowledge. It, typically, encompasses concepts such as paradigm, theoretical model, phases and quantitative or qualitative techniques. A methodology does not set out to provide solutions but offers the theoretical underpinning for understanding which method, set of methods or so called "best practices" can be applied to a specific case. It has been defined also as the analysis of the principles of methods, rules, and postulates employed by a discipline, the systematic study of methods that are, can be, or have been applied within a discipline, and the study or description of methods.

The methodology of project is about study and evaluation of strategic management in Indian construction industry, to understand the current strategic position of a firm within the competitive environment and formulate strategies for better performance, to plot the future direction of a firm and prepare long term plans based on systematic approaches, better coordination of all operational and functional units within organization. It also include the study based on the effects due to project feasibility, project schedule, human resource management, quality control and controlling cost overrun. It also includes collection of literature, identification of problem-hypothesis, investigation on hypothesis, preparation of questionnaire, visiting various construction companies for doing questionnaire survey, analysing of data collected from construction companies through questionnaire survey, results and discussions will be made on analysed data. The methodology of this project is explained in a flow chart as Figure.

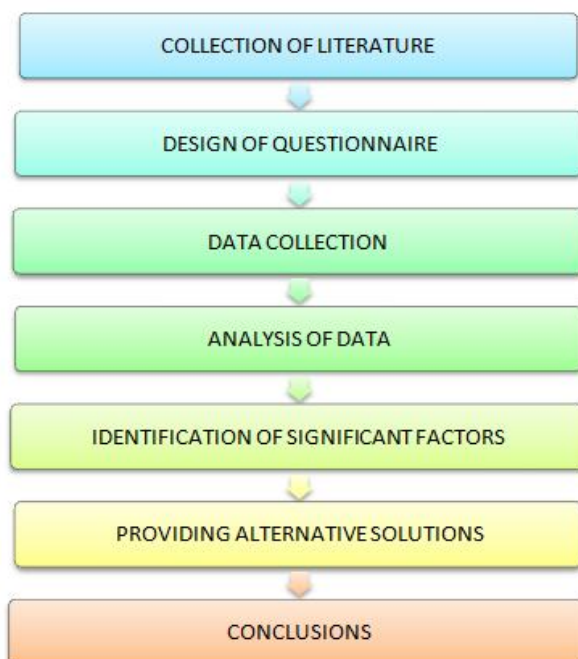


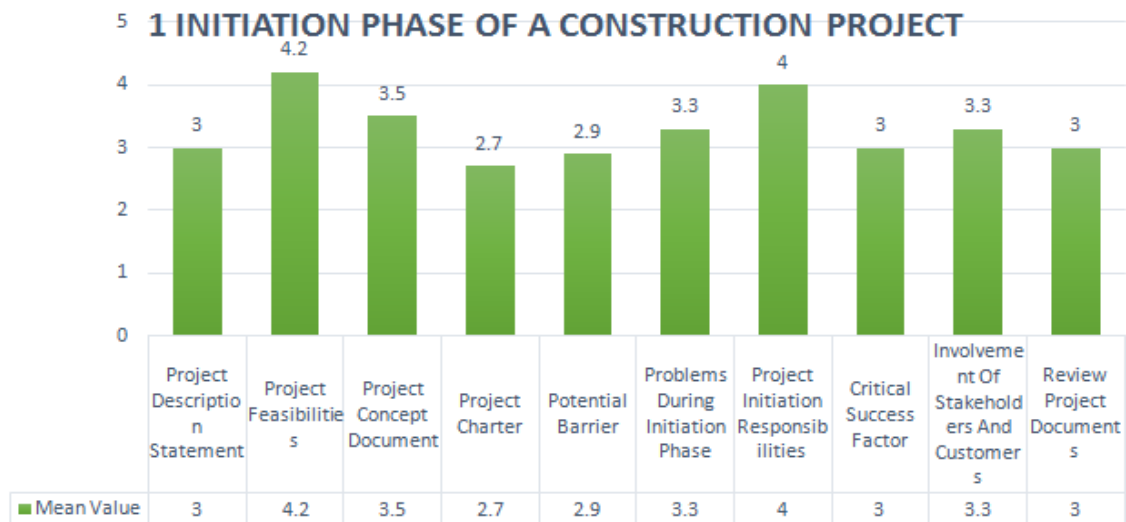
Figure-1

Questionnaire is the main mode of data analysis considered in phase of the project. The analysis of the collected data was made by using SPSS software (Statistical Product and Service Solutions). SPSS is a window based program that can be used to perform data entry and analysis and to create tables and graphs. SPSS is capable of handling large amounts of data and can perform all the analyses. All the data collected from 40 samples were provided as input for the software and the analysis is arrived at by considering the mean values.

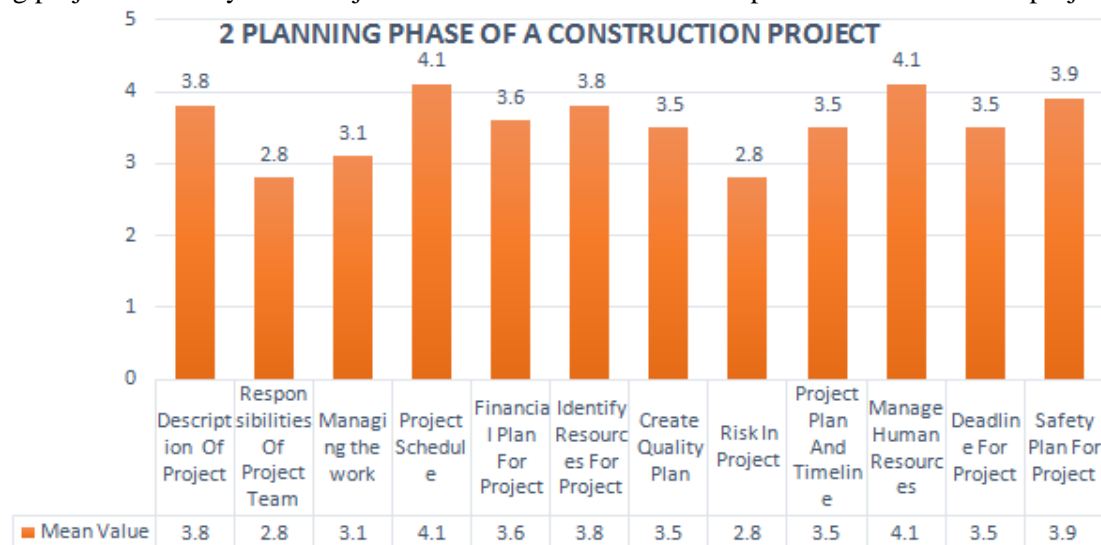
The Mean value is defined as the average value of observed data. The mean for the data is obtained from the descriptive analysis. The questionnaire was designed by giving 5 options. They are

- 1- "STRONGLY AGREE"
- 2- "AGREE"
- 3- "NEUTRAL"
- 4- "DISAGREE"
- 5- "STRONGLY DISAGREE"

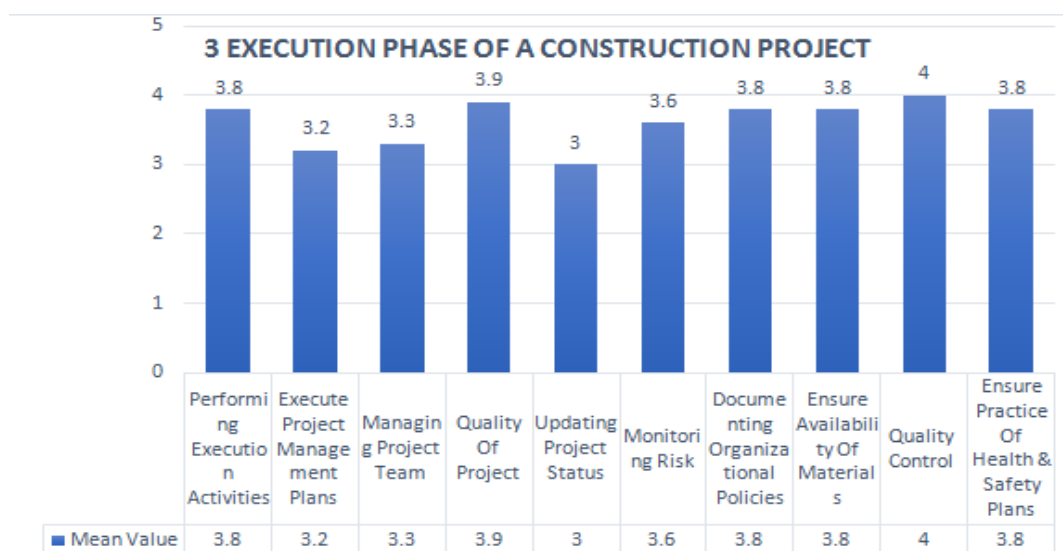
5. RESULTS AND DISCUSSIONS



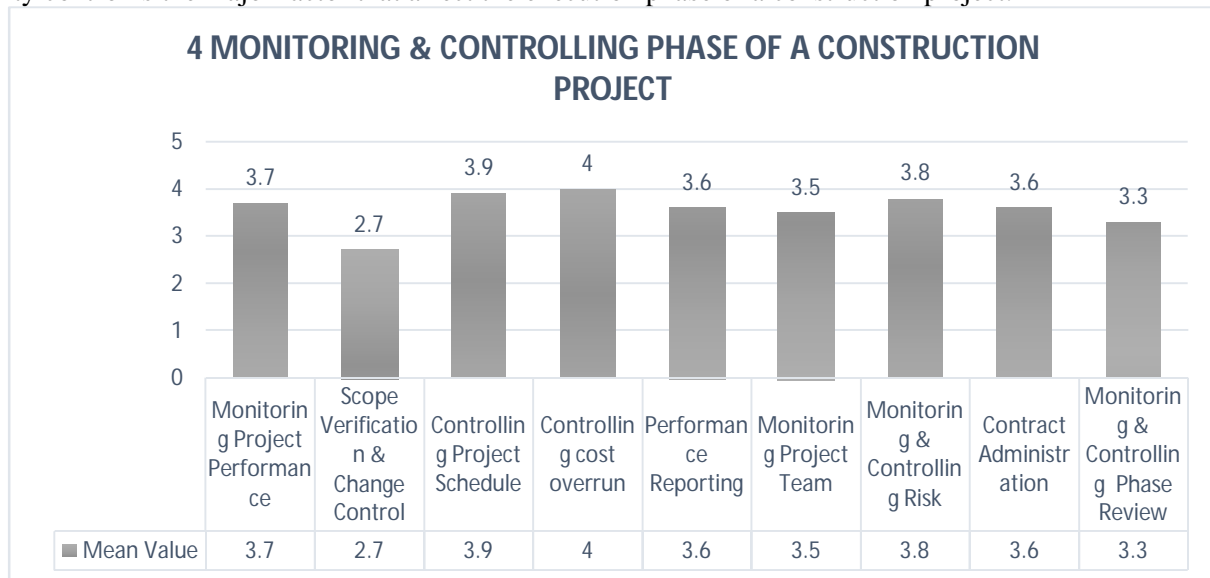
In the graph, project feasibility has a mean value of 4.2, which means most of the companies agree that conducting project feasibility is the major factor that affect the initiation phase of a construction project.



In the graph, project schedule has a mean value of 4.1, and Human resource management has a mean value of 4.1, which means most of the companies agree that project schedule and Human resource management are the major factors that affect the planning phase of a construction project.



In the graph, quality control has a mean value of 4.0, which means most of the companies agree that conducting quality control is the major factor that affect the execution phase of a construction project.



In the graph, controlling cost overrun has a mean value of 4.0, which means most of the companies agree that controlling cost overrun is the major factor that affect the monitoring and controlling phase of a construction project.

6. CONCLUSIONS

This paper revealed that the major causes of construction project failures due to poor strategic management in construction like not having proper project feasibility study, poor quality control, improper project schedule and poor human resource management.

The above mentioned causes of failures can be overcome by adapting SWOT (strengths, weaknesses, opportunities and threats) Analysis. A SWOT analysis is a structured planning method used to evaluate the strengths, weaknesses, opportunities and threats involved in a project. It involves specifying the objective of the project and identifying the internal and external factors that are favourable and unfavourable to achieve that objective. SWOT Analysis is an effective tool for improving the strategic management in a construction industry.

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FINANCIAL INCLUSION INDIA: SIGNIFICANCE IN THE REFORMS ERA

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Abstract

There has been a perception that globalisation and liberalisation policies initiated in the country have given more emphasis to market and as a result it has excluded many sections of the population from the arena of real growth. Financial inclusion is an important aspect of inclusive growth. What is the role of banking sector in attaining financial inclusion in our economy? Though, India has emerged as the second fastest growing economy in the world, there are concerns regarding the fact that the fruits of growth are not equally distributed. This study intent to provide an overview of the various aspects that are related to inclusive growth and also tries to assess the role of banking sector in widening and strengthening the target of financial inclusion. An effort is also made to describe the various policies needed for achieving more inclusive growth in the financial sector.

Keywords: Inclusive growth, Financial Inclusion, Equitable Development.

1. Introduction

The Indian economy has moved on a high growth path over the last two and a half decades as a result of wide ranging structural reforms initiated in the early nineties. During the last few years, India has emerged as the second fastest growing economy in the world. Even though the economy is on the road of economic development with a high moderate rate of growth for the last several years, there are concerns regarding the fact that the fruits of growth are not equally distributed. Policy makers of the country have responded to these concerns arguing for inclusiveness in the Eleventh Five Year Plan. For attaining sustainable economic growth in the economy, it requires inclusive growth. The concept of Inclusive growth stresses on equitable opportunities for economic participants during economic growth with benefits incurred by every section of society. The definition of inclusive growth implies direct links between the macroeconomic and microeconomic determinants of the economy and economic growth. The microeconomic dimension captures the importance of structural transformation for economic diversification and competition, while the macro dimension refers to changes in economic aggregates such as the country's gross national product (GNP) or gross domestic product (GDP), total factor productivity, and aggregate factor inputs. Attainment of inclusive growth and its preservation is sometimes difficult because economic growth may give rise to several negative externalities, such as a rise in corruption, which is a major problem that exists in various segment of the economy, especially in the administrative sphere. However, an emphasis on inclusiveness especially on equality of opportunity in terms of access to markets, resources, and an unbiased regulatory environment, is an essential ingredient of successful growth. The inclusive growth approach takes a longer-term perspective, as the focus is on productive employment as a means of increasing the incomes of poor and excluded groups and raising their standards of living.

Inclusive growth is a broad concept which covers economic, social and cultural aspects of development. Inclusive growth can be treated as synonyms with 'equitable development' and in this frame work there is complementarity between growth and equity. Agricultural growth, employment generation, poverty reduction, development in social sector, reduction in regional and other disparities is the various interrelated components of inclusive growth. The "inclusive" approach is not a new thing for the modern world. Even though, the approach of growth with equity has been emphasised in the country since independence, still it remains as an unattained target. There has been a perception that globalisation and liberalisation policies initiated in the country have given more emphasis to market and as a result it has excluded many sections of the population from the arena of real growth. There are limits to economic analysis regarding inclusive approach. Non-economic factors like norms, culture and beliefs can also influence in the level of inclusion or exclusion (Mahendra Dev 2007).

2. Objectives of the Study

The objective of this study is to provide an overview of the various aspects related to inclusive growth and to assess the role of banking sector in widening and strengthening the target of financial inclusion. An effort is also made it tries to describe the various policies needed for achieving more inclusive growth in the financial sector. The experience of the economic reforms initiated in the country in the last two and a half decades indicate that while there have been improvements in the growth front, foreign exchange earnings, IT sector,

export sector etc, the income distribution has been unequal and only some sections of the population are benefited more from higher growth and prosperity. Since the challenges for achieving inclusive growth are much more than raising economic growth, it also argues that public policy should give priority to these sectors rather concentrating on policies to improve lop-sided growth benefiting few sections of the population. The role of state as facilitator and provider is much more important for attaining inclusive growth. The international experience shows that countries have followed different development policies to achieve growth and equity.

3. Core aspects of Financial Inclusion

The objective of financial inclusion is to extend the scope of activities of the organized financial system to incorporate the deprived people with low incomes. The committee on financial inclusion, of government of India, has defined financial inclusion as the process of ensuring timely access to financial services and adequate credit where needed by vulnerable groups such as the weaker sections and low income groups at an affordable cost (Rangarajan Committee, 2008). Financial inclusion indicates the delivery of different kinds of financial services at an affordable cost to the vast sections of the disadvantaged and low-income groups. The various financial services include credit, savings, insurance and payments and remittance facilities. The process of financial inclusion consists of ensuring bank accounts to each household and offering their inclusion in the banking system (Reddy, 2007). Access to financial services promotes social inclusion, and builds self-confidence and empowerment. Dr. K. C. Chakrabarty, Deputy Governor, Reserve Bank of India has mentioned that financial inclusion is no longer a policy choice but it is a policy compulsion today and the banking sector can act as a drive to attain inclusive growth in the country. Unrestrained access to public goods and services is the end products of an efficient society. As banking services are in the character of public good, it is essential that availability of banking and payment services to the entire population without discrimination is the principal objective of the public policy.

During the year 2004, the Reserve Bank of India setup a commission known as Khan Commission to look into Financial Inclusion and the recommendations of the commission were incorporated into the Mid-term review of the policy of RBI in the financial year 2005-06. In the report RBI exhorted the banks with a view of achieving greater Financial Inclusion to make available a basic "no-frills" banking account. The RBI directed the commercial banks in to start a cent percent Financial Inclusion campaign on a pilot basis in various regions. As a result of this campaign states like Himachal Pradesh and Kerala have announced cent percent financial inclusion in all the districts of the states. Reserve Bank of India's vision for 2020 is to open nearly 60 crores new bank accounts and provide various kinds of services to the customers with the help of Information Technology. It is a fact that the existence of low level literacy and the low income savings and lack of bank branches in rural areas continue to be a road block to financial inclusion in many regions of the country.

The data provided by the NSSO reveals that out of a total of 89.3 million households in the country around 50 million farmer households do not have the access to credit, either from institutional or non institutional sources. Furthermore, only 27 per cent of total farm households are getting credit facilities through formal sources.

4. A Comparison of the Intensity of Financial Inclusion in Various countries

The intensity of financial inclusion based on certain selected indicators such as the number of bank branches, number of ATMs, the volume of credit provided by the banks and the volume of deposits with the banks, among ten selected countries, are illustrated in Table I.

Table I: Selected Indicators of Financial Inclusion- Cross country Analysis

Sl. No	Country	Number of Branches (Per 0.1 Million Adults)	Number of ATMs (Per 0.1 Million Adults)	Bank Credit (Percentage of GDP)	Bank Deposit (Percentage of GDP)
1	India	10.91	5.44	43.62	60.11
2	Austria	11.81	48.16	35.26	32.57
3	Brazil	13.76	120.62	29.04	47.51
4	France	43.11	110.07	56.03	39.15
5	Mexico	15.22	47.28	16.19	20.91
6	U K	25.51	64.58	46.97	47.49
7	U S	35.74	173.75	46.04	53.14
8	Korea	18.63	250.29	84.17	74.51

9	Afghanistan	2.25	0.50	11.95	21.4
10	Philippines	7.69	14.88	27.57	53.02

(Source: World Bank Financial Access Survey-2009)

Regarding the intensity of branches, the number of branches is 10.91 per 0.1 million adult people, which ranked eighth place among the ten countries listed in the in the Table. In the case of leading countries the figures were France (43.11), US (35.74) and UK (25.51).the number of ATMs per 0.1 million adult peoples in India was 5.44 while it was 250.29 in Korea, 173.75 in US, 120.62 in Brazil and 110.07 in France. Among the ten countries listed in the Table India's rank in terms of financial inclusion based on the number of ATMs is 9th. Financial inclusion measured in terms of credit provided by banks as a percentage of GDP in India was 43.62, while in the case of UK it was 46.97 %. Bank deposits in India as a percentage of GDP was 60.11 in countries like Korea and US this share was 74.51 % and 53.14 % respectively. The analysis of the available data reveals that the intensity of financial inclusion in India is very low compared to other countries, even in the era of economical liberalisation and globalisation.

5. RBI's Strategies to Ensure Financial Inclusion in India

In India, the banking sector has shown tremendous growth in volume and complexity after the inception of liberalisation policies. Financial inclusion is delivery of banking services at an affordable cost that is 'no frills' accounts, to the vast sections of deprived and low income categories of the society. Despite making significant improvements in all the areas relating to financial viability, profitability and competitiveness, there are concerns that banks have not been able to reach and bring vast segment of the population, especially the marginalised sections of the society, into the fold of basic banking services. In the global level also there various efforts are being made to study the causes of financial exclusion and design strategies to ensure financial inclusion of the poor and disadvantaged. The reasons may vary from country to country and so also the strategy but all out efforts are needed as financial inclusion can truly lift the standard of life of the poor and the disadvantaged.

When the nationalised banks fail to give the desired attention to various remote and distant areas, the supervisory body have to step in to remedy the situation. In our country, the Reserve Bank of India has placed a lot of emphasis on financial inclusion. With a view to enhancing the financial inclusion, as a proactive measure, the RBI in its Annual Policy Statement of the year 2005-2006, insisted the banks to review their existing practices to bring into line them with the objective of financial inclusion. During the financial year 2005-2006, in the Mid Term Review of the Policy of the RBI urged the banks, with a view to achieving greater financial inclusion, to make available a basic banking 'no frills' account either with 'NIL' or very minimum balances as well as charges that would make such accounts accessible to vast sections of the population. The nature and number of transactions in such accounts would be restricted and made known to customers in advance in a transparent manner. All banks were urged to give wide publicity to the facility of such 'no frills' account, so as to ensure greater financial inclusion.

As per the directions of the RBI, banks are required to provide a choice of a 'no frills account' where the minimum balance is nil or very small but having restrictions on number of withdrawals, etc., to facilitate easy access to bank accounts. Further, in order to ensure that persons belonging to low income group both in urban and rural areas do not face difficulty in opening the bank accounts due to the procedural hassles, the 'KYC' ('Know Your Customer') practice for opening accounts for those persons who intend to keep balances not exceeding Rs.50,000 in all their accounts taken together and the total credit in all the accounts taken together is not expected to exceed Rs. 1,00,000 in a year has been simplified to enable those belonging to low income groups without documents of identity and proof of residence to open banks accounts. In such cases banks can take introduction from an account holder on whom full KYC procedure has been completed and has had satisfactory transactions with the bank for at least six months. Photograph of the customer who proposes to open the account and his address need to be certified by the introducer.

As the Reserve Bank has been receiving several representations from public about unreasonable service charges being levied by banks, the existing institutional mechanism in this regard is not adequate. Accordingly, and in order to ensure fair practices in banking services, the RBI has issued instructions to banks making it obligatory for them to display and continue to keep updated, in their offices/branches as also in their website, the details of various services charges in a format prescribed by it. The Reserve Bank has also decided to place details relating to service charges of individual banks for the most common services in its website.

6. Role of Banks in Financial Inclusion

Commercial banks play a vital role in the economic development of a country like India. Indian economy in general and banking services in particular have made rapid strides in the recent past. However, a sizeable

section of the population, particularly the vulnerable groups, such as weaker sections and low income groups, continue to remain excluded from even the most basic opportunities and services provided by the financial sector. To address the issue of such financial exclusion in a holistic manner, it is essential to ensure that a range of financial services is available to every individual. Financial Inclusion should not be seen as a social responsibility of the Governments and the banking system, but it is a potentially viable business proposition today which provides the poor with opportunities to build savings make investments and get credit. Table I shows the number of commercial banks in India over the period 2008-2013. The data reveals that the number of commercial banks in India during the year 2008 was 173 and it has come down to 155 in 2013. During this period, the number of scheduled commercial banks has also come down from 169 in 2008 to 151 in 2013.

Table I Number of Commercial Banks in India

Sl.No	Item	2008	2009	2010	2011	2012	2013
1	Number of Commercial Banks	173	170	167	167	173	155
2	Scheduled Commercial Banks	169	166	163	163	169	151
3	Of Which RRBS	90	86	82	82	82	64
4	Non Scheduled Commercial Banks	4	4	4	4	4	4

Source: RBI, *Statistics Relating to Commercial Banks*

The number of commercial banks provides an opportunity for the people to participate in the formal financial services of formal financial system. There is a long history of financial inclusion in India. It has traditionally been understood to mean opening new bank branches in rural and unbanked areas. Nowadays, however, financial inclusion is seen to be something more than opening bank branches in unbanked areas to take formal financial services across the length and breadth of the country. In the context of the various shortcomings in delivering subsidies, direct transfers using technology have been thought of. The beneficiary needs to have at least one bank account. Since in a logistics point of view it is impossible to open that many physical branches, the brick and mortar type, the accent will be on opening electronic accounts. Technology adaptation would be a key feature in this scheme for financial inclusion. Table II shows change in the number of bank offices in India over the period 2008-2013. The data reveals that the number of branches has increase by 39.37 per cent during this period.

Table II: Number of Bank Offices in India

Sl. No	Area	2008	2009	2010	2011	2012	2013
1	Rural	30927	31598	32529	33868	36503	39439
2	Semi Urban	18027	19337	21022	23299	26144	28961
3	Urban	15566	16726	18288	19046	20650	21720
4	Metropolitan	14267	15236	16364	17806	19080	19961
5	All India Level of Bank Offices	78787	82897	88203	94019	102377	109811
6	Change in Per cent	0.00	5.20	11.95	19.33	29.94	39.37

Source: RBI, *Statistics Relating to Commercial Banks*

As per Census Report 2011, only 58.7 per cent of households are availing banking services in the country. However, as compared with previous census 2001, availing of banking services increased significantly largely on account of increase in banking services in rural areas. Table III shows the population per bank offices in India over the period 2008-2013. The data indicates that during the year 2008, the population per bank office in the country was 15000 and that gradually declined to 14000 in 2010, 13000 in 2012 and it again declined to 12000 in the year 2013, that clearly spell out the extension of banking survives in the country. It is a positive sign of developments that are taking place in the banking sector and it can ensure much for attaining the target of financial inclusion in the country.

Table III: Population per Bank Office in India

Year	2008	2009	2010	2011	2012	2013
Population	15,000	15,000	14,000	13,000	13,000	12,000

Source: RBI, *Statistics Relating to Commercial Banks*

NSSO 59th Round Survey Results show that 51.4 per cent of farmer households are financially excluded from both formal/ informal sources. Of the total farmer households, only 27 per cent access formal sources of credit; one third of this group also borrowed from non-formal sources. Overall, 73 per cent of farmer households have no access to formal sources of credit. Across regions, financial exclusion is more acute in Central, Eastern and North-Eastern regions. All three regions together accounted for 64 per cent of all financially excluded

farmer households in the country. Overall indebtedness to formal sources of finance of these three regions accounted for only 19.66 per cent. However, over the period of five decades, there has been overall improvement in access to formal sources⁴ of credit by the rural households. The trends in demand deposits, time deposits, bank credit and percentage of credit allowed by commercial banks in the country over the period 2008 – 2013 is furnished in Table IV. During the year 2008, the aggregate deposits with the commercial banks in the country were Rs.31964.40 billion and it has increased to Rs.67504.54 billion in 2013. Along with that the percentage of credit allowed by the commercial banks were 73.88 in the year 2008 and it has increased to 77.93 per cent in 2013. It also specifies the increasing role of commercial banks in attaining the target of financial inclusion in the country.

Table IV: Aggregate Deposits and Credit Level of Scheduled Commercial Banks

(Rs. In Billion)

Sl. No	Item	2008	2009	2010	2011	2012	2013
1	Demand Deposits	26726.30	33110.25	38472.16	45662.64	52837.52	60881.55
2	Time Deposits	5243.10	5230.85	6456.10	6417.05	6253.30	6622.99
3	Aggregate Deposits	31969.40	38341.10	44928.26	52079.69	59090.82	67504.54
4	Bank Credit	23619.13	27755.49	34447.88	3940.83	46118.52	52604.59
5	Credit Allowed (%)	73.88	72.39	72.22	75.69	78.04	77.93

Source: RBI, *Statistics Relating to Commercial Banks*

7. Concluding Remarks

In spite of the relatively satisfactory performance in some of the macro economic variables, fast reform period witnessed slow rate of reduction in poverty, low quality of employment growth, increase in rural-urban disparities inequalities across social groups and regional disparities, agricultural growth was low in the last ten years. Farmer suicides are more evident now than before. Although there has been some progress in education, the rate of growth in health indicators was lower in the post reform period as compared to pre reform period. There was an increasing feeling that only few sections of the population such as rich and middle class particularly in urban areas, corporate sector, foreign institutional investors, IT sector have benefited from the economic reforms. There is some sort of consensus now that growth should be shared by all sections of the society rather than limiting to few categories of population.

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**CHEQUE TRUNCATION IN BANKS: AN INNOVATIVE TOOL FOR ENHANCED
COMPETITIVENESS IN BANKING OPERATIONS**

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Introduction

From time immemorial, trade and commerce has been a part of human civilization. In respect of the mode of effecting the payments in business transactions, however, there have been many changes over the years, a few of which being quite radical and revolutionary in their nature. Accordingly, on a closer analysis, it may be observed that the humanity have so far come across three very prominent landmarks in our journey towards improvising payment settlements; starting from the earliest form of trade known as 'barter' system to the ever-latest form called 'e-commerce' system. Firstly, because of the increase in the number and kind of transactions barter goods became unwieldy to carry and trade, and thus barter systems gave way to the 'currency' system as a more convenient mechanism for conducting business. Secondly, owing to safety and convenience problems associated with currency, 'cheques' replaced currency as the most preferred payment mode for business transactions, thus resulting in tremendous increase in cheque-based transactions across the sound banking channels connecting different parts of the globe. The delay in realization of money after the business transaction is the main drawback of cheque-based transactions. Traditionally, cheques have to traverse through a series of stages before it reaches the payee bank and fund transfer is effected. This process normally takes considerable time ranging from one week to a fortnight. Further, the infrastructure that should be maintained for facilitating the entire clearing process as above also posed problems for banking institutions. However, with the advent of computers and wide area networks (WAN) that linked banking institutions via secure and private networks like 'INFINET'- regulators and banking professionals wanted a new generation technology to get rid of the above-mentioned problems associated with cheque-based transactions. This has paved the way for the third major shift in the mode of effecting business payments, by developing an alternative which is primarily based on the latest advances in the field of Information and Communication Technology (ICT) as pointed out above. This methodology can very effectively replace the current paper-based (and also 'MICR'ised) banking transactions involving physical movement of cheques with one that is in the electronic form and revolutionize clearing and settlement transactions of banks. This process is known as the 'Cheque Truncation'. Cheque Truncation has already proven to be a superior alternative to the current paper-based systems and in many of the progressive banking systems of the world, the same is currently operational at varying levels. More importantly, because of the explosive growth in the number of banking transactions day by day, the existing systems are becoming more and more cumbersome and unwieldy. This has made cheque truncation an imperative for banks rather than a choice. Moreover, apart from the convenience that it provides, there are unmatched benefits in terms of huge reduction in transaction cost and time. Quite naturally, banking systems the world over have either adopted or are very seriously in the process of switching over to cheque truncation systems from their respective traditional systems.

In India banks have been following the traditional practice of paper-based transactions for payment and settlements. This procedure being based on physical movement of cheques has been causing such problems as procedural delays, high cost of maintaining the requisite infrastructure etc. In India, the development of a more safe, secure and sound payment and settlement system has been one of most important policy objectives of the central bank viz. the Reserve Bank of India (RBI). Accordingly, in view of the unwieldy and cumbersome procedures involved in the existing system as well as to achieve high operational efficiency by way of tremendous cost and time savings and in the meantime to catch up with the best global practices in the field, the RBI has been initiating a number of measures to enhance the efficiency in payment settlements by promoting functionality and modernisation of the payment and settlement systems on an on-going basis. For instance, it had rightly constituted a Working Group on Cheque Truncation and E-Cheques in January 2003. In order to provide focused attention to the payment and settlement systems, the Reserve Bank constituted the Board for regulation and supervision of Payment and Settlement Systems (BPSS) as a Committee of its Central Board, vide. the Reserve Bank of India (Board for regulation and supervision of Payment and Settlement Systems) Regulations, 2005. (Gazette of India dt. February 18, 2005.) Further, the RBI's Vision Document released in May 2005 details the action points for upgradation of the payment systems with definite milestones over a period of three years. As per the latest (November 2005) position in this regard, RBI envisages the Cheque

Truncation Systems (CTS) to be implemented by the next fiscal viz. 2006-'07; the pilot CTS project being planned by end-March, 2006 in New Delhi. .

Objectives of the Paper

In view of the foregoing, the objectives of this paper have been set as follows: (i) to study the concept of cheque truncation and also the benefits of cheque truncation, (ii) to analyse in detail the process involved in cheque truncation vis-à-vis the recommendations of the Working Group constituted by the RBI regarding the modus operandi of implementation of CTS by Indian banks, (iii) to study the present level of implementation of CTS in India.

Analytical Significance

Worldwide, cheque truncation may be observed to be one of the most vital activities involved in the replacement of legacy systems in banks. Moreover, this would continue to account for a sizeable chunk of IT-based investment in the banking and financial services industry. Globally, the investment in this regard is to the tune of 8% of the worldwide technology spends and the same is estimated to reach the level of 17% by 2010. Indian scenario in this regard is not an exception. As mentioned in the earlier paragraph, RBI has already announced that the pilot project for Cheque Truncation System (CTS) would be implemented in New Delhi by end-March 2006. Indian banks have started investing heavily in IT during the last few years and the same is expected to continue in future; to keep in pace with the regulatory requirements and hence to align themselves with the international banking practices.

In view of the foregoing, it appears quite relevant to understand the concept of 'Cheque Truncation', the benefits deriving from adoption of cheque truncation systems, the process of cheque truncation and such other relevant aspects; with reference to India – the emerging global service hub. An analysis on the above lines, essentially within the broad framework provided by the relevant regulatory norms / stipulations (like, the recommendations of RBI's Working Group in this regard, for example); but incorporating the popular international practices in this regard also, wherever found appropriate, would be quite useful especially from the perspective of banking and finance professionals as well as researchers in this field.

Methodology and Data Sources

Methodology is descriptive (ex post facto research) to the extent that it is a fact-finding enquiry relating to the relevance and significance of the concept of cheque truncation in the Indian scenario. Accordingly it involves an in depth study of all the relevant regulatory initiatives, while at the same time fully appreciating all the major global practices as well as market developments in this regard. Research approach adopted is of qualitative nature. Data sources include the all the relevant publications of the Reserve Bank of India (RBI) – the central bank of the country over the last few years till November 2005; publications of Federal Reserve Board (FRB), USA; publications of BIS (Bank for International Settlements) and BCBS (Basle Committee for Banking Supervision); relevant bare acts like Check 21 Act, 2003⁰¹ (US); reputed business dailies and journals like the Economic Times, Business Line etc.

Organisation of the Paper

The paper is organized into four major parts; apart from the preliminary section comprising of the introduction, analytical significance, objectives of the paper and organization of the paper. Part – I discusses the concept of cheque truncation and also the benefits thereof. Part – II explains the process of cheque truncation in detail with the help of a process diagram and also links the process with the recommendations of the RBI's Working Group on cheque truncation. Part – III traces the level of implementation of CTS in India and the related aspects. Lastly and finally Part – IV offers the concluding remarks of the authors.

Part – I

Cheque Truncation System (CTS) – Concept and Benefits

Cheque truncation is the process in which the physical movement of cheque within a bank, between banks or between banks and the clearing house is curtailed or eliminated, being replaced in whole or in part, by electronic records of their content (with or without the images) for further processing and transmission (RBI, 2003). The term "truncate" means to remove an original paper cheque from the cheque collection or return process and send to a recipient, in lieu of such original paper cheque, a substitute cheque or, by agreement, information relating to the original cheque (including data taken from the MICR line of the original cheque or an electronic image of the original cheque), whether with or without subsequent delivery of the original paper cheque (Check 21 Act, 2003)⁰¹. Cheque Truncation compels any party in the chain to truncate any cheque (business or commercial) and convert it to an image at the presenting bank level.

Benefits of cheque truncation include:

1. **Clearing and forwarding times will reduce:** The existing cheque realization time span varies from 1 to 10 days and even a fortnight. The cheque truncation system will try to minimize this to T + 1 (or, even T+0 in some cases) where the T is the cheque receiving date. In a large country like ours the process of clearing of out station cheques could take anywhere between a week to a fortnight.
2. **Fraud can be detected at early points and addressed more effectively:** Minimize risks and introduce a secured cheque clearing system Make cheque clearing process more efficient through electronic transmission of cheque images.
3. **Operational costs can be brought down dramatically along with cycle times:** Cheque imaging will result in cost savings due to lower cost in physical transportation of cheques. Cost reduction results due to the non-reliance of courier/postal agencies for the movement of cheques. Physical and human resources utilized for manual processing of cheques could be re-deployed for better operational efficiency of banks.
4. **Minimizing Float and hence the misuse of float funds and preventing scams:** Cheque truncation would ultimately mean the death of distance and hence that of time involved in clearance of cheques. Customer credits on a T+1 basis (i.e. credit after one day of the day of presentment) and even T+0 (credit on the same day). This in turn, means elimination of the misuse of float funds as well as the resultant scams, both from the part of customers and bankers.
5. **Inter branch reconciliation will be smoother:** Because of the ‘virtually instantaneous’ kind of clearance of cheques under the cheque truncation system, inter branch reconciliation becomes quite easy and the same becomes a part of the clearance process itself as all these are integrated in a full-fledged cheque truncation system.

Part – II

Process of Cheque Truncation – A Typical Model

As noted earlier, the Reserve Bank of India had constituted a Working Group on Cheque Truncation and e-cheques in January 2003. Figure (1) below represents a typical block diagram showing the process of implementation of cheque truncation systems (CTS). The process diagram as above has been developed keeping in mind the key observations in the report submitted by the above Working Group.

[It may, however, be noted that different models for CTS have been proposed and are operational in various countries of the world (BIS, 2000) and accordingly there could be slight variations in individual systems. But, the essential features of CTS have fully been appreciated and captured in the above process diagram.]

The process of cheque truncation is explained below with the help of the process model shown in Figure (1). The eleven steps involved in a typical cheque truncation process as depicted in the figure is explained hereunder.

- Step 1: Cheque Truncation process starts with a customer presenting a MICR cheque to a teller in the “Presenting Bank”.
- Step 2: Teller at the presenting bank collects the MICR cheque and arranges for ‘truncating’ it.
- Step 3: Physical cheque is truncate by processing it through a cheque scanner hardware and software. After the process of the “electronic imaging”, truncated electronic image of the cheque is referred to as ‘substitute cheque’ or ‘image replacement document’ (IRD). Figure 2 & 3 shows the Front and Back of physical cheque after truncation.
- Step 4: Truncated cheque / IRD is presented for clearing to a ‘Automated Clearing House’ via existing or new wide area network (WAN) the bank branch have access with. To ensure confidentiality and integrity of the IRD, it is encrypted using a suitable encryption-decryption technique. PKI is the most preferred technique prevalent right now internationally and Working Group recommends the same for Indian system.
- Step 5: Automate Clearing House is an electronic equivalent of clearing houses existing presently. Automate Clearing House acts a exchange which accepts and dispatches IRD from presenting to paying banks. Automate Clearing Houses routes the IRD utilizing the MICR data present in the IRD data bundle.

- Step 6: Working Group envisages the need of a national authority which would keep an archive of all IRDs generated. A centralized agency could be the legal custodian of the IRDs and should maintain them for the legally stipulated time which is set as eight years in India. Presence of such an agency could relieve banks storage and security infrastructure of IRDs processed by them.
- Step7: IRD is send to the Paying Bank for payment. Transferred is made through an electronic medium as in Step 5.
- Step 8: ‘Paying Bank’ conducts a verification of IRD after receiving it. Since the IRD is an electronic document even electronic tools could be used for fraud detection or verification.
- Step 9: If there are sufficient funds in the account of the cheque issuer the sum denoted in the cheque is released. If there is lack of fund or due to any other reason (mismatch of signature or stop payment) the banks rejects the IRD.
- Step 10: Depending upon the outcome of the fund transfer/denial, ‘Outward Returns’ could be fund transfer or intimation of denial. In the case of non-clearing of the IRD, it is modified suitably and send back to the ‘Presenting Bank’.
- Step 11: ‘Presenting Bank’ receives the transferred fund or returned IRD as ‘Inwards Returns’. The customer’s account is credited with the fund received or in case of non-clearing of the IRD customer is given an image of the returned IRD with suitable explanation.

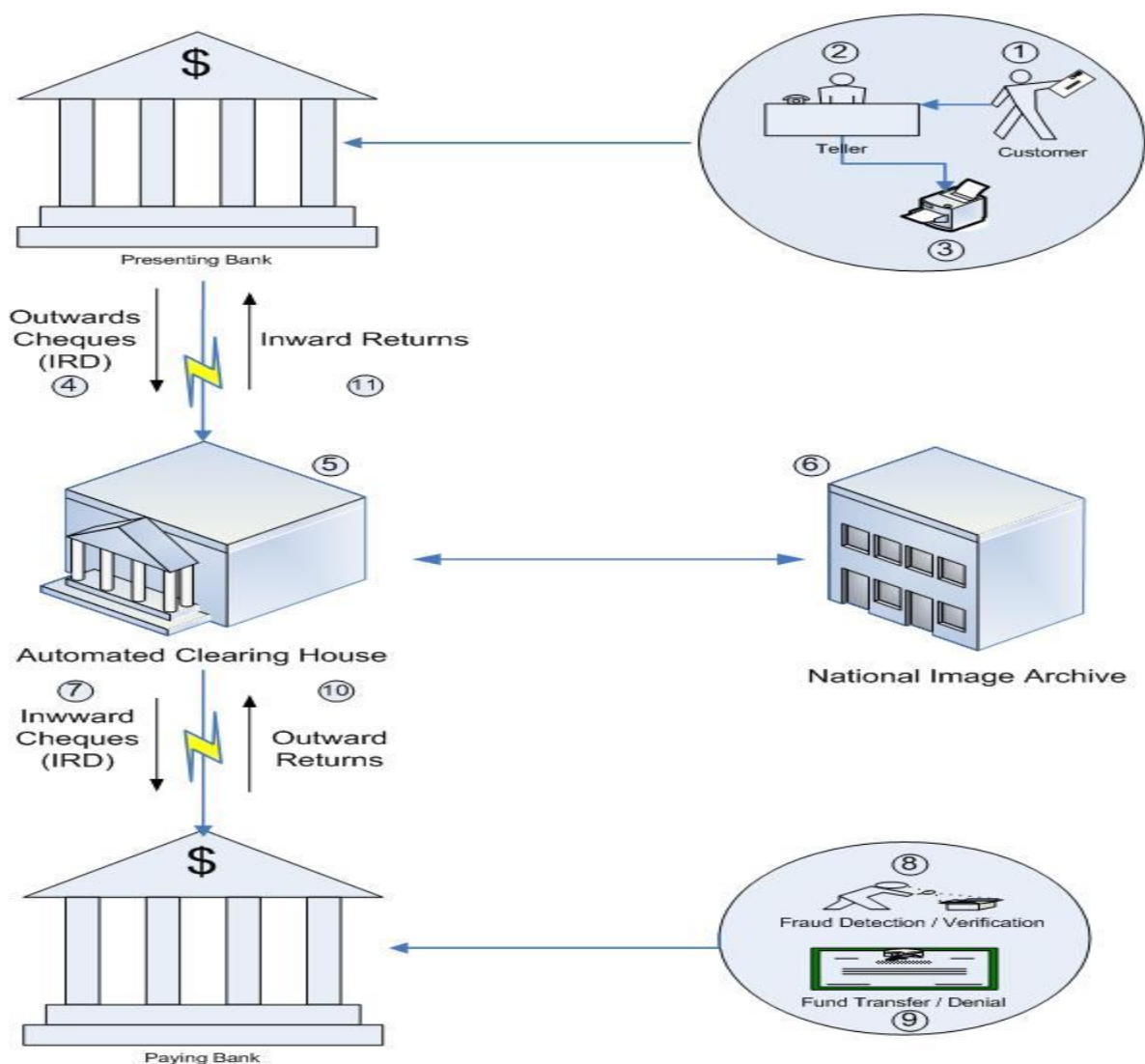


Figure: 1 Block diagram of Cheque Truncation Process.

Now, let us examine the CTS process as above vis-à-vis the recommendations of the Working Group constituted by RBI. Accordingly, the relevant steps in the process model diagram (Figure 1) have been linked with the respective recommendations of the Working Group.

Sl. No	Recommendations of the RBI’s Working Group on Cheque Truncation – Important points.	Steps in the Process Diagram
1	The cheques should be truncated at the Presenting Bank itself. Within the Presenting Bank it should be left to the individual banks whether cheque is truncated at the branch or at the service branch or whether the truncation process is outsourced, depending upon the individual efficiency, resources, facilities and cost considerations of the bank.	Step 3
2	As payment based on the MICR code line exchange would not provide opportunities for signature verification (which is a legal requirement as on date), the Group recommends electronic image based cheque truncation	Step 3
3	With regards to the preservation of physical cheques Working Group recommends to change the existing statutory preservation period of eight years under “Banking Companies Preservation of Records” Rules 1985 to one year should be made to the Government.	Step 2
4	From the point of view of efficiency and control, the Group concludes that Centralised Agency per clearing location should act as an image warehousing facility for the banks. However, given the challenges involved in setting up a single agency in the Indian context, the Group recommends that the choice could be either a single agency or individual drawee banks as the points of storage.	Step 6
5	Working Group recommends that for the entity that will act as a Centralised Image Warehousing Facility should meet the following criteria: (i) The entity should have the technical competency (ii) The entity should have an efficiency orientation (iii) The entity should be sizeable in terms of resources (iv) If the entity is an existing organization, it should be well reputed (v) It would be preferable for banks to have ownership stakes in such entities (vi) It should be subject to supervisory and regulatory controls of the Reserve Bank of India or any other agency that may be authorized for this purpose by the Reserve Bank of India.	Step 6
7	Working Group recommends that the preservation period of the electronic image of the cheque should be eight years. The Group also recommends that Government may be approached to amend the “Banking Companies Preservation of Records” Rules 1985 to enable image preservation for eight years.	Step 6
8	Group recommends that the Grey Scale technology which helps capture finer features on cheques and also have relatively lesser storage and network bandwidth requirements will be suitable for India.	Steps 3, 4,6,7
9	With regards to the standardization of cheques issued by Banks, working Group recommends that truncation and standardization of cheque format should be independent initiatives with the latter being implemented after even after the introduction of cheque truncation.	Step 1
10	With regard to the modification of MICR field to accommodate verification of genuineness of the cheque at the presenting bank itself Working, Group recommends that the truncation should be introduced in India for settlement to be generated on the basis of the current structure of the MICR fields.	Step 3
11	Working Group recommends that use of Public Key Infrastructure (PKI) should be adopted to protect data and image flow over the network and to establish authenticity, non-repudiation, integrity etc and suggested that digital signatures should be used. The Group also recommends that the security requirements for the	Step 4 , 6, 7

	storage of images by the banks or the Centralised Warehousing Agency should be in consonance with the requirements of the IT Act 2000.	
12	With regards to the maintenance of minimum requirements of security and efficiency, Working Group recommends that the members in the truncation based clearing system should be subjected to a certification process based on prevalent Information Security Audit Guidelines of the Reserve Bank of India.	
13	With regards to the type of implementation of Cheque Truncation system, Working Group recommends Cheque truncation should be introduced for all banks and all clearings at a centre from a cut-off date for all participants at that centre.	
14	Working Group recommends that there should be no amount based cut-off for truncation and all cheques should irrespective of value, should be truncated.	
15	Working Group recommends that in view of large number of cheque volumes and the benefit derived by introduction of truncation the four metro centres should be targeted first in the first phase. Before that, pilots at two small centres near the metros will be done within a time frame of one year	
16	Working Group recommends that countermanding payments and recording stops should be allowed till the time of payment as is the existing practice.	

(Source: Compiled from 'Recommendations of Working Group On Cheque Truncation And E-Cheques', Reserve Bank of India, Mumbai.)

Table1: Features of the Cheque Truncation process as proposed by the RBI's Working Group.

As explained in the process diagram, once a cheque is truncated the paper cheque is not used for any further transactions; instead a 'substitute cheque' or IRD is used. A substitute cheque is a special paper copy of the front and back of an original cheque. The substitute cheque may be slightly larger than the original cheque. Substitute cheques are specially formatted so they can be processed as if they were original cheques. The front of a substitute cheque should state: "This is a legal copy of your cheque. You can use it the same way you would use the original cheque." (Federal Reserve Board, USA,2004)⁰² Figure 2 shows front side of a substitute cheque. Figure 3 shows back side of a substitute cheque.

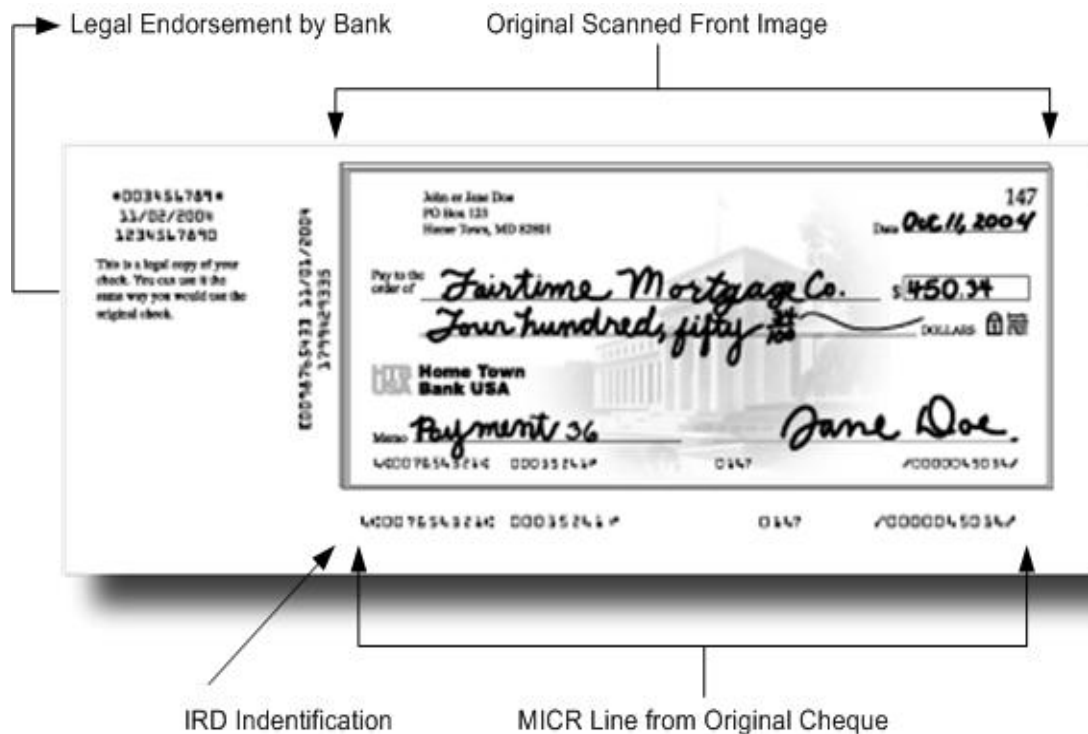


Figure 2: Forward Original IRD of Personal-Size Cheque, Front (Image courtesy: Federal Reserve Board, USA)

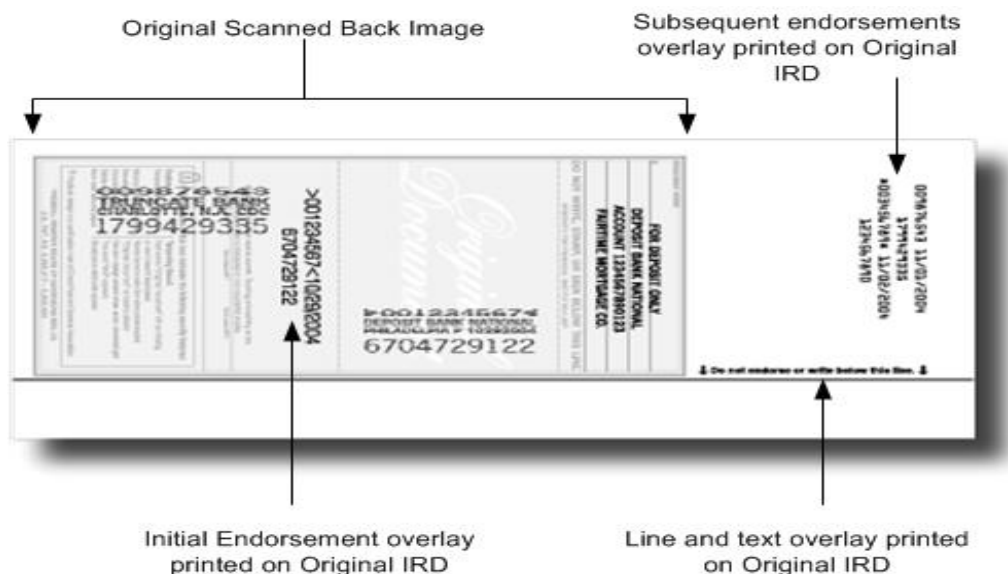


Figure 3: Forward Original IRD of Personal-Size Cheque, Back
(Image courtesy: Federal Reserve Board, USA)

Part III:

Cheque Truncation and other IT innovations in Indian Banking – The Way Ahead

An analysis of the trend and progress of commercial banking during post-deregulation era clearly suggests two things. Firstly, there has been considerable improvement in the financial performance and stability of banks in India; particularly since FY 2001-'02. Secondly, in respect of IT initiatives in banking, though there have been some notable progress during the last few years, the same is yet to pick up momentum in full swing. However, the present initiatives of RBI in this regard, suggests that in IT front also Indian banking system would be in the forefront within a few years hence, and this in turn would contribute tremendously towards further improving the financial performance and stability; primarily because of the substantial cost savings as are enabled by IT.

Regarding the specific area of payments and settlement systems in banks, cash and cheque mode remains the most used method of payment, mainly due to slower penetration rate of alternate mechanism of payments in India. Table 2 below shows some indicators relating to the trend of payment systems in India during the last three years.

Table 2: Payment Systems Indicators in India

Particulars	Year 2002 -2003		Year 2003-2004		Year 2004-2005	
	Volume (000s)	Value (Rs Crore)	Volume (000s)	Value (Rs Crore)	Volume (000s)	Value (Rs Crore)
MICR Clearing (At 40 centres)	4,79,189	18,43,726	6,24,360	20,35,934	820,743	41,15,176
Non-MICR Clearing (Includes all other paper based clearing)	3,61,400	27,45,307	3,34,039	30,05,139	290,400	14,18,117
Electronic Clearing (Comprising ECS, EFT and SEFT)	23,660	10,222	31,352	29,606	57,072	79,476
Cards (Including credit, debit and smart cards)	-	-	188,275	36,265	362,040	77,120

[Source: Reserve Bank of India. (RBI 2004,2005a)]

Reserve Bank of India has initiated procedures to implement a pilot project for CTS in the National Capital Region (NCR) consisting of Delhi, Gurgaon, Noida, Faridabad and Ghaziabad and in the nearby centers for the Reserve Bank of India. The system is scheduled to go live during the first quarter of 2006. With the introduction of CTS the existing time taken for clearing of both local and outstation cheques are expected to reduce considerably. CTS would also improve the efficiency and quality of the services offered by the Banks in the area of the Cheque Clearing both to the customers of the banks and for the internal improvements in areas such as Clearing reconciliation, Risk management, Systemic efficiency, etc. Important milestones in the pilot cheque truncation project are listed below (RBI 2005c).

1. Deciding points of outward truncation within the bank
2. Assessing the networking infrastructure required for transmission of images & MICR data to the Clearing House and internal networks of the bank
3. Deciding point/s of inward payment processing of images and MICR data.
4. Deciding on the systems for storage of inward and outward images in an electronic form and their subsequent retrieval, retention period for the outward presentation and inward instruments online in an electronic form.
5. Assessing the hardware & software requirement for outward & inward clearing, storage of outward/inward images/ data etc.
6. Deciding on the re-engineering of the payment processing workflow; and training & reorientation of the staff concerned
7. Finalisation of the Procedural Guidelines.
8. Awareness Training Programme for all officers and staff members associated with clearing operations

Part IV Concluding Remarks

In spite of the advent of many innovative payment mechanisms like debit/credit cards, e-cheques or electronic payment systems etc., usage of cheques remains as one of the most preferred payment methods the world over. An analysis of the recent statistics suggests that even in the case of many of the advanced countries of the world, there is only a marginal decline in the volume of cheques transacted over last one decade and hence banking channels in those economies are investing resources heavily in developing cheque truncation infrastructure to bring in more efficiency and faster turn-around time for processing cheques.

While preparing to align itself with the best banking practices, essentially as part of the implementation of Basel II norms, Indian banking system has already developed an excellent blue print aimed at bringing about sweeping reforms in the area of payment and settlements systems. Main objective of these reforms is to bring in large scale usage of IT which should result in reduction of operational risks – the third among the major types of risk as identified by the Basel Committee on Banking Supervision (BCBS) in its New Basel Capital Accord (2003). Introduction of Cheque Truncation is expected to mitigate frauds considerably since there is no physical movement of cheques and hence protecting substantially from operational risks.

It may, however, be admitted that implementation of CTS may pose a few intrinsic technological and non-technological issues to be solved in the near future. For instance, the likely non-technological issues include building of procedural framework required for smooth transition to new system, customer education and awareness to be undertaken prior to implementation, etc. Lack of proper customer education may result in mass scale dishonoring of cheques initially; till the system stabilizes itself. Another major issue is the procedural guidelines required to meet eventualities like legal disputes where truncated cheques alone are available, particularly after physical cheques are discarded. Moreover, banks are required to make substantial capital investment initially. Keeping in view of the substantial benefits that accrue with the introduction of CTS, issues like those mentioned above, could be tackled with ease. These do not appear to act as a major deterrent in implementing this new system. As performance indicators of Indian banking system are increasingly converging to international benchmarks, the current initiatives of RBI would definitely enhance the operational efficiency and hence further strengthen the financial stability of Indian banks in the days to come.

Notes:

- ⁰¹ Check: The term ‘check’ is the American term for the term cheque as we use in India. In this article the term cheque is used throughout; except while referring to some US Acts (like, Check 21 Act) or publications. See items 4, 5 and 6 under References.
- ⁰² Regarding the statement “This is a legal copy of your cheque. You can use it the same way you would use the original cheque” on the front side of the substitute cheque, it may be noted that the same is applicable only in USA (as per the directives issued by the Federal Reserve Board, USA) and the same is not stipulated by the RBI in India.

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