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Articles

From the Editor

All of us must have encountered a few personalities, with seemingly high level of knowledge and expertise in their own function, who have not achieved much and at the same time, a different set of personalities, apparently with mediocre level of knowledge and expertise, who are there much ahead of the former set on the scale of growth and development. The same thing also happens with the organizations. This common experience of ours reveals one thing very transparently that while possessing knowledge is necessary, managing the same is sufficient to accomplish something. In fact, acquisition of knowledge adds to the potential but managing knowledge puts potential into action and hence gets reflected on performance. The importance of this very fact has been well-realized by three authors of one of the articles titled "The Changing Paradigm and Expansion of Knowledge with Knowledge Management" of 'May 2014' Issue of the IUJ Journal of Management. They have focused on Knowledge management that seeks to make the best use of the knowledge available to an organization, while creating new knowledge in the process.

Recessionary pressure in the USA and Euro-Zone crisis coupled with search cost in the factor market has put forth its toll on the job market in India leading to unemployment in Indian economy. If there in no opportunity to make use of your knowledge how well knowledgeable and good knowledge manager one may be, there will be no chance for any change in the existing situation. However, for making use of one's knowledge and managing the same effectively, it is not that one has to do job in the corporate world or government offices. The best alternative that has been emerging in recent time is the entrepreneurship, which not only utilizes the knowledge of the proprietor but also helps in making best use of talent and providing bread and butter of others. Second article of this Issue "Entrepreneurial Contribution to Society" asserts on the basis of empirical finding that the entrepreneurs in the study area have made contribution to the society in the form of generating employment opportunities, at least, for a few unemployed and have helped in reducing the burden on the government to that extent.

As we have already mentioned, knowledge has become a critical factor now for any venture and learning is the means to acquire knowledge. While during primary and secondary levels of education, the concept of distance learning does not crop up either from demand side or supply side; both the market forces are keen in distance learning at higher level owing to its aptness and usefulness. Now, with advancement in Information Communication Technology (ICT), the benefits of distance learning at higher levels have been taking momentum. Accordingly, two authors of one of our articles titled "Effectiveness of Video Teleconferencing in Teaching – Learning in Open Distance Learning Institutions in India" have analyzed the practices of two leading Open Distance Learning (ODL) Institutes in India, IGNOU and BRAOU to enhance "interactivity "between Learners and Teachers and proposed a framework on how teleconferencing can be more effectively utilized in ODL.

While ICT facilitates acquisition of knowledge, Life Insurance Corporation (LIC) of India, an example of applied monopoly in the life insurance sector, in the form of insuring the life of individuals, initiates the interest of acquiring knowledge. The Company which works for our lives should provide the facilities of higher order to the customers by making use of modern information technology. And hence an article of this Issue "Information Technology (IT) Initiative at Life Insurance Corporation (LIC) of India" exhibits how LIC has made best use of the IT initiatives with its key success factors. There is no doubt on substantial advancement in the use of ICT and IT in recent time in all facets of our life. In spite of having ultra modern modes like plastic money, e-banking, mobile money, etc. to deal with monetary transactions, the use of cheques now also plays a great role in total monetary transactions in India. That's why National Payments Corporation of India (NPCI) has introduced Cheque Truncation, i.e., one of the ways to compress the clearing cycle to provide faster clearances of local and intercity cheques, replacing in whole or in part by electronic records of their content. One of the articles of this Issue "National Payments Corporation of India (NPCI) - Introduction of Bank's Cheque Truncation System - Key Features of CTS-2010 & e-Cheques –effective from 1st July 2013" has aptly focused on entire processes of introduction of Bank's Cheque Truncation System in India and the mechanism

achieve efficiency in software products, have developed a framework that helps and provides clear visibility and traceability across Software development life cycle and helps guide quality efforts.

The author through his article titled "Merger and Acquisitions in Indian Steel Industry: Atypical cases of Tata-Corus and Arcelor-Mittal" has lucidly presented two of the most important deals in the Indian steel industry –TATA-CORUS deal and ARCELOR-MITTAL deal and made it clear to the rest of the steel-makers around the world that India has arrived on the global platform, in spite of seemingly technological backwardness. While corporate players have been adopting many strategies like Merger and Acquisitions to have competitive advantage and maintain profitability, as a corporate citizen of the country they are also to go for corporate social responsibility (CSR) activities either voluntarily or out of legal binding. As a result, many corporate like Coal Mining Industry are undertaking varied CSR initiatives. But to optimize the benefits from such initiatives, there should be proper match between the demand of the beneficiaries and supply of the corporate besides, analyzing impact and gap, if any, in the process of initiating CSR activities. The article titled "Rationale of Need and Gap Analyses in the Context of Corporate Social Responsibility Activities Initiated by Coal Mining Industry" has tried to justify this. Before undertaking any CSR initiatives, the most important thing that comes to our mind is ethics in doing business. The author in his article "Role of Senior Management in Ethical Related Actions" nicely presents the role of the Senior Management in inculcating the concepts of 'Ethical Related Actions' and the importance of such concepts in the ethical management of organizations.

Today's people are highly cautious about their health. So people have started preferring green products, i.e., sustainable or environment friendly products, to traditional products but the trend is not as expected. Therefore, if we can come to know from the users, why they like green products, may be, by making use of the findings, the trend could be made favourable. The article titled "Factors Influencing Preferences for Green Products" has agreeably made the grounding to undertake this task. In spite of showing concern for our health and adapting health friendly way of living, we can not assure of our sound health. Hence, health insurance has now become a highly saleable product in insurance industry and therefore many companies offer the product with varied ranges targeting differently. That's why it is very important to select the best suited one amidst many. The article "Modeling Health Insurance Selection in Indian Market using Data Mining Approach" has tried to furnish a model to deal with the perplexity in selection of health insurance.

Besides, while the article titled "Mall Shopping in Small Cities: Mania or Necessity?" explores the ideas across necessity of shopping and mania for shopping towards shopping mall, the author in her article "Diagnostic Study of Handloom Cluster in Jharkhand" has made an in-depth assessment of the various problems faced by the handloom clusters in Jharkhand and suggest relevant measures to overcome the same. Although Malls have been in a pivotal position in the supply chain, Handloom Clusters in Jharkhand struggle a lot for an effective supply chain, particularly for an appropriate inventory model. Therefore the last but not the least article of this Issue titled "Inventory Model for Items with Imperfect Quality and Screening at Vendor Site" has proposed a model for screening of defective item from a lot of items at the vendor site in a single-vendor single-buyer situation for a single product.

The Issue concludes with a review of the book titled "Urbanization in Asia: Governance, Infrastructure and the Environment". The reviewer has magnificently briefed the gist of 15 chapters of the book contributed by academicians and practitioners that focuses on urban governance in the developing world.

This Issue, containing 14 articles and one book review, comprehensively covers the defined scope of the Journal, by and large providing a complete set of domains, and has interpretation that offer constructive and apt information about those domains. I sincerely wish that the contents are very useful to readers as every creation provides fairly complete treatment of the subject.

(S. C. Swain)
Managing Editor

The Changing Paradigm and Expansion of Knowledge with Knowledge Management

Mani Bansal[1] Sunita Tanwar[2] A.K. Vij[3]



Knowledge Management is a branch of management that seeks to improve performance within the organisation. Knowledge is the awareness of the information that people have gained in the terms of experiences and learning. During the last few decades, the practice of Knowledge Management has become a central management theme throughout the world. It overlapped with initiatives on competence management and organisational learning, gaining credibility from the daily news on the imminent arrival of knowledge society and the continuously expanding internet. This paper focuses on the evolutionary growth and changing perspectives in knowledge management, and the present status of KM frontiers. The early emphasis in Knowledge Management was on information systems. Then the focus shifted towards organisational development, intellectual capital management and competence management. Presently Social learning, organisational sense making and systematic innovation and change management become prominent themes in knowledge management. Knowledge management is valuable tool for those enterprises that practice it deliberately and systematically. Creating and operating KM capabilities cover many disciplines such as organisational information processing, business intelligence, organisational cognition and organisational development. The first had its starting point in computer technology, the second on information services, the third on research on organisational innovation and sense making and the fourth on business strategy and human resource management. Knowledge management seeks to make the best use of the knowledge that is available to an organisation, while creating new knowledge in the process.

Keywords: Knowledge management, Growth stages of KM, Changing focus of KM, Knowledge management life cycle model.

Introduction

During the last few decades, the practice of Knowledge Management has become a central management theme throughout the world. Knowledge Management as an organisational innovation has been with us for more than a decade. The ability to manage knowledge is increasingly more crucial in today's economy.

Knowledge Management has been initially defined as the process of applying a systematic approach to capture, structure, manage and disseminate knowledge throughout an organisation in order to work faster, reuse best practices and reduce costly rework from project to project (Nonaka and Takeuchi, 1995). Knowledge Management is a mix of strategies, tools and technologies- some of which are nothing new under the sun. Knowledge Management utilises a combination of techniques for knowledge base system design, such as structured knowledge acquisition strategies. Globalisation opportunities and pressures coupled with world- wide communication signify the point that structural

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intellectual capital assets is a necessary cornerstone for competitive behaviour in the knowledge economy.

2. Types of Knowledge

2.1 Tacit Knowledge

Tacit knowledge is the knowledge of an individual not articulated and not converted into information. It is more useful to an organisational system if it can be transferred to others so they can more effectively communicate via electronically mediated cannels, David (2004).

2.2 Explicit Knowledge

Explicit knowledge is what individuals are able to express fairly easily using language or other forms of communication, e.g. visuals sound movement. It is usually contained within tangible or concrete media.

Table 1: Comparison of Tacit and Explicit Knowledge

Features of Tacit Knowledge	Features of Explicit Knowledge
Ability to adapt, to deal with new and exceptional situations	Ability to disseminate, to reproduce, to access and to reapply throughout the organisation
Expertise, know-how, know- why	Ability to teach, to train
Ability to collaborate, to share a vision, to transmit a culture	Ability to organise, to systematize, to translate a vision into a mission statement, into a operational guidelines
Coaching and mentoring to transfer experiential knowledge on a one to one, face to face basis.	Transfer of knowledge via products, services and documented processes

3. Evolution of Knowledge Management

Knowledge Management has its origin in four different disciplines that were relatively independent until the late 1990s. The broad discussion on the emerging knowledge society provided credibility for each of them, emphasizing the importance of the new rules of global, networked and knowledge- intensive economy, Ilkka Tuomi (2002). Each of the four different disciplines gained momentum from the perceived ongoing transformation, indirectly amplifying each other. The four disciplines of knowledge management are Organisational Informational Processing, Business Intelligence, Organisational Cognition and Organisational Development.

3.1 Organisational Information Processing

During the last two decades, Knowledge Management has often been associated with computers and information systems. Indeed, during the first generation of Knowledge Management, many initiatives focused on finding a suitable software package that could be used to make Knowledge Management happen.
In the 1970s the focus in Artificial Intelligence moved to systems that followed a relatively simple logic but which had detailed knowledge of their domain of application.In the 1980s, the increasing processing power and some widely published success stories resulted in extensive interest in expert systems and knowledge based technology. Expert systems were marketed as solutions to alleviate the problems of organisational downsizing, retirement of experts and loss of crucial competencies. The focus of Artificial Intelligence in the 1970s and 1980s was on automated processing of knowledge,

Bobrow and Winograd, (1997). The increasing capability to store information, however, also made possible new forms of document and database management systems.

3.2 Business Intelligence

Competitive Intelligence has generated interest in the recent years as a result of the information explosion and the sharpness of information technologies. Competitive Intelligence is the analytical process that transforms scattered information about competitors and customers into relevant, accurate and useable strategic knowledge on market evolution, business opportunities and threats. The focus in Competitive Intelligence is on strategic analysis of external information related to market trends and competitors. Whereas the information processing experts often approached organisational knowledge as a technical problem that could be solvedby appropriate use of technology, the competitive intelligence people are interested in finding, understanding, synthesizing and disseminating relevant information. The focus of competitive intelligence is on strategic decision making and the expanding computer networks support the existence of organisational intelligence beyond the executive offices and boardrooms.

3.3 Organisational Cognition

Corporate Competitive Intelligence expanded to Business Intelligence at the beginning of the 1990s when it was reconceptualised to include management of organisation's internal knowledge. Although Business Intelligence relied heavily on information systems, its focus was not just on knowledge representation, automated analysis and social networks. Cognition of a human being relates to the internal mental process that begins with receiving information and terminates with action taking. Cognitive process consists of various mental processes for using knowledge i.e. Information Gathering, Sense- Making (Interpretation), Choice and Commitment. Cognitive process is the process of using knowledge and being driven by knowledge. Research on organisational cognition has been historically inspired by information processing that is the foundation of cognitivistic theories of human mind. Nonaka's innovation studies were complemented and to some extent paralleled by research on organisational learning.

Table 2: Changing Focus of Knowledge Management

KM Cluster	Focal Root Communities	Primary Object of Intervention
Organisational Information Processing	Information system support, Artificial Intelligence experts, software providers	Information systems
Business Intelligence	Corporate librarians, Competitive Intelligence Professionals	Strategic decision making processes
Organisational Cognition	Researchers on organisational sense making	Organisational knowledge processing
Organisational Development	Competence strategists, innovation managers, Human Resource developers, finance and control	Organisational capabilities and management practices

Source: adapted from IIkka Tuomi, "The future of Knowledge management"

fashion within the organisation. Organisational cognition researchers however started to question the nature of knowing and its role in organised social action. In parallel, Intellectual Capital movement emerged from a more economic

oriented viewpoint, arising from the observation that knowledge was invisible in organisational accounting and measurement systems. Intellectual Capital people focused mainly on the management and measurement of knowledge related competencies, with relatively less emphasis on knowledge generation and learning. The strategic concern was maximum return on investment in existing knowledge assets, as well as protection of intellectual property.

4. Growth Stages of Knowledge Management

4.1 First Generation Knowledge Management

First generation knowledge management related to the capturing of information and experience so that it can be easily accessible in a corporate environment. The first branch of knowledge management was anchored to be the use of technology. In this view, knowledge management is an issue of information storage and retrieval. It uses ideas derived from system analyses and management theory.

First generation Knowledge Management involved creating complex data analysis and retrieval systems without much attention to how the information they contained would be developed or used, Joseph and Mark (2002). A typical scenario might have seen an organisational install a sophisticated intranet in order to categorise and disseminate information, only to find that the extra work involved in setting up the metadata meant that few people within the organisation actually used the intranet.

4.2 Second Generation Knowledge Management

Second generation knowledge management focuses on learning and relating information with individuals. Organisations are viewed as capable of learning and so connection grew between learning theory and management. It is concerned with the way people create and use knowledge. It is closely related to organisational learning and itrecognises that learning and doing are more important to organisational success than the simple dissemination of information and imitation of best practices. It raises the requirement for new capabilities in the support functions, facilitation of learning reviews, and the ability to connect people with others, matching supply with demand, and enabling networking.

4.3 Third Generation Knowledge Management

Knowledge Management was the name introduced to describe the management activity concerned with implementing such solutions as provide competitive advantage to the organisation and increase productivity and effectiveness, Karl Wiig (2002), the notion of Intellectual Capital had appeared a few years earlier to account for the increasing disparity between the market value of real world enterprises. According to Koenig, the third stage of Knowledge Management relates to the importance of retrievability and therefore of the arrangement, description and structure of the content. In particular, the third stage is about finding relevant content and about taxonomy development and content management to facilitate this goal.

5. Life Cycle Model For Knowledge Management

There are five basic processes considered for managing knowledge. These are defined as creating, sharing, structuring, using and auditing, which form the Knowledge Management Life Cycle, Mustafa Sagsan (2006). Life Cycle model helps us to understand knowledge management processes in hierarchical order.

5.1 Knowledge Creation

The ability to create knowledge is often at the heart of the organisations competitive advantage, Nonaka (1997), Knowledge creation is about continuous transfer, combination and conversion of different types of knowledge. Organisational participants create knowledge through their intuition, ability, skills, and behaviour and work experiences. Key players, departments and their

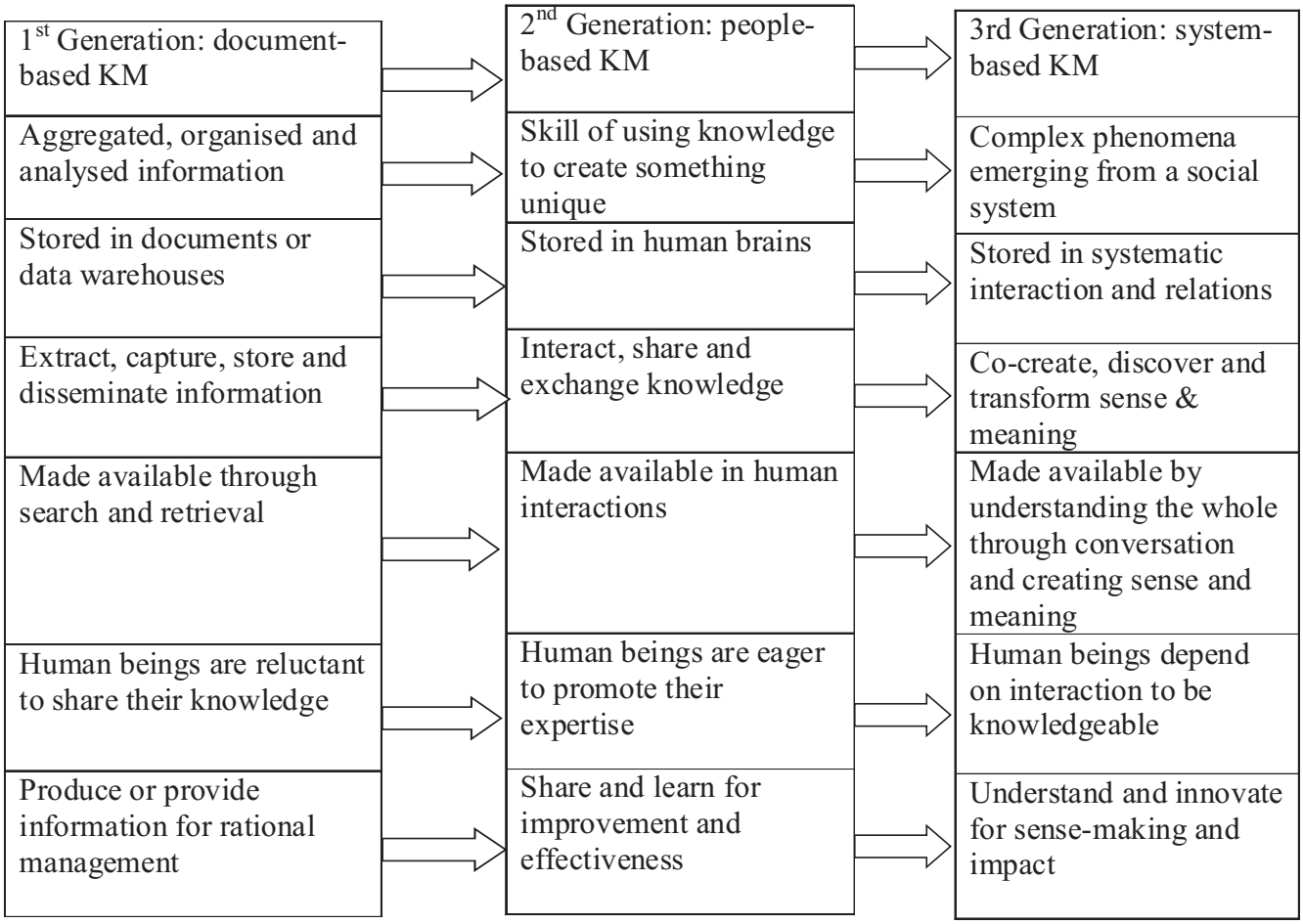

Fig. No.1 Growth Stages of Knowledge Management

interactivity can play a crucial role in creating knowledge in organisation.

5.2 Knowledge Sharing

The second important stage of Knowledge Management Life Cycle is Knowledge Sharing. It involves creating knowledge by individuals and groups with their interactivity and connectivity in organisations. It is carried out by social and technical communication channels. It depends on the stability and durability of organisational infrastructure. If organisational infrastructure is suitable for aligning with the knowledge management system, then only the successful knowledge sharing can be carried out.

5.3 Knowledge Structuring

After constructing a perfect infrastructure system for knowledge sharing, data, information and knowledge should be structured in order to store in organisational database for the future needs. Structuring knowledge is based on sorting, organising, codifying, analysing, and reporting that facilitates retrieval of knowledge needed by the organisation in future. Knowledge structuring categorises data and information through various classification tools and enables timely retrieval of this information. Thus, mapping, sorting, and retrieving information are three important components of knowledge structuring.

5.4 Knowledge Use

According to David (2002), organisations use knowledge for three reasons:

(i) Knowledge can be used for determining organisations work processes and making strategies for sustainable competitive advantage.

(ii) Knowledge can be used for designing and marketing product.

(iv)Knowledge plays a critical role of organisations services quality.

Like knowledge structuring, knowledge use is also based on information technology. Hence for effective knowledge use, individuals must have IT literacy.

5.5 Knowledge Auditing

Knowledge auditing means the amount of knowledge that can be used in organisations products, services and processes. In other words, what amount of information and knowledge is created, shared, stored and used in the organisation in a certain timeframe, which helps in determining the information capacity needs in the organisation. Auditing knowledge in an organisation means measuring intellectual capital; intangibles such as information, knowledge and skills that can be leveraged by an organisation to produce an asset of equal or greater importance than land, labour and capital.

6. Conclusion

Knowledge Management is the deliberate and systematic coordination of an organisation's people, technology, processes, and organisational structure. The main stages of evolutionary growth of knowledge management show how various generations of knowledge management succeeded each other, and summarize the learning, proposed policy and management issues. Knowledge management includes five basic steps in hierarchical order i.e. creating, sharing, structuring, using and auditing. The three generations of knowledge management focus on information systems, organisational development, intellectual capital management and competence management. Knowledge management contributes to organisational intellectual capital and innovation capacity.

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Entrepreneurial Contribution to Society

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Entrepreneur is recognizing the opportunities, pursue the activity, assuming the risk, create employment and make contribution to the society. Many research studies have recognized the role played by the entrepreneur in the development of a nation. The present paper aims at analyzing the association between investment, sales turnover and nature of business activity with the employment generated. To fulfill the objectives of the paper three each alternate and null hypotheses were set and tested by using co-efficient of contingency tool. The paper is the result of primary data collected by conducting a field survey in Uttara Kannada district of Karnataka state. With the help of a well designed interview schedule 500 respondents were surveyed in all the 11 taluks of the study area. Due representation is given to entrepreneurs from different age, family background, category, range of investment and sales turnover and also the nature of activity. The study concluded that the entrepreneurs in the study area have made contribution to the society by providing employment to at least few people, thus reduced the burden on the government to that extent.

Keywords : *Co efficient of Contingency, Entrepreneur, Society*

Introduction

Entrepreneurs are the individuals who recognize the opportunities, pursue the activity, assume the risk, generate the employment, create the market, fulfill the needs of and expectations of the society and thus contribute for the overall development of the society. The development in England is the result of speedy industrialization and the role played by the entrepreneurs, particularly in the latter part of the industrialization.

Literature Review

Rajkumar S.S. T in his study found that the micro, small and medium enterprises (MSMEs) sector contribute significantly to the manufacturing of goods, employment and exports of the country and provide the maximum opportunity for both self-employment and jobs after agriculture. The study concluded that unplanned urbanization can be avoided by the establishment of small centres of industrial production all over the country.

Obsan Keninde A and Adediran Ulanrewaja Adewole in their study on small and medium scale enterprises and economic growth in Nigeria from 1980 to 2008 found that the Nigerian economy has developed due to the fact that the SSI will assist in employment generation, stimulation of entrepreneurship, mobilizing hidden capital in the economy, creating a middle class of self employed entrepreneurs, development and utilization of local technology, steaming rural-urban migration to facilitate the use of local materials and leads to equitable distribution of income and wealth.

According to J.B Say an entrepreneur is the economic agent who unifies all means of production. Jan Timbergen points out that the who uses much capital, but rather the man who knows how to organize the employment and training of his employees. Whoever concentrates on this is rendering a much more important service to his country than the man who uses huge

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capital. Vasanth Desai has defined the term entrepreneur as one who detects and evaluates a new situation in his environment and directs the making of such adjustments in the economic systems as he deems necessary.

Objectives of the Study

The present paper makes an attempt to analyse/study the contribution made by the entrepreneurs to the society in terms of employment generation and support others to setup their units. The association between investment and employment generation, sales turnover and employment generation and nature of activity and employment generation is analysed by using co-efficient of contingency statistical tool.

Hypotheses

The following hypotheses were set to achieve the above objectives.

H_1 There is significant association between capital employed and employment generation.

H_0 There is no significant association between capital employed and employment generation.

H_1 There is significant association between turnover and employment generation.

H_0 There is no significant association between turnover and employment generation.

H_1 There is significant association between activity and employment generation.

H_0 There is no significant association between activity and employment generation.

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Methodology and Design

The present paper is the outcome and extracts of a research (field survey) conducted in Uttara Kannada district of Karnataka state on entrepreneurship development. The research covered 500 sample units distributed in all the 11 taluks of the district. The sample size is decided by;

$$S=z^2[P(1-P)]e^2$$

Where, S= Sample size

Z= The number relating to the degree of confidence wish to have in the result.

P= An estimate of the proportion of people falling into the group in which researcher interested in the population

E= Sampling error

Due weightage was given to entrepreneurs from different background, both community and family, age, education, income level, nature of activity etc. The data is analysed by using percentage and co-efficient of contingency. The formula used is,

$$\text{Co-efficient of contingency} = \sqrt{\frac{x^2}{x^2+N}}$$

$$X^2=(O-E)^2/E$$

The result of the co-efficient of contingency always lies with ±1. If the result is >0.5, there is significant relationship exists and if it is <0.5 relationship is negligible.

Hypotheses Testing

Entrepreneur is the provider of employment and in a most populous country like India; he/she reduces the burden on the government or freeing the government from the burden of providing employment. The level of employment generation is influenced by the capital investment, sales turn over and nature of activity. The extent ofrelationship between investment,

turnover and nature of activity with employment generation is analysed here and hypotheses are tested.

1. Investment and Employment Generation

Table 1 presents the data relating to the employment provided in numbers across the amount of investment.

X^2=411.88 Co-efficient of Contingency=

$$\sqrt{\frac{x^2}{x^2+N}} = \sqrt{\frac{411.88}{411.88+500}} = 0.672$$

Inference: Since the co-efficient of contingency is more > 0.5, there is significant relationship between investment and employment generation.

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Hypothesis Testing

Since calculated value of co-efficient of contingency (0.672) is greater than 0.5 the first alternative hypothesis that "**There is significant association between capital employed and employment generation**" is proved.

2. Sales Turnover and Employment Generation

The turnover of entrepreneur is likely to decide the number of personnel to be appointed. The units with higher turnover can provide employment to many people and there by contribute for the society. In the study area the entrepreneurs are running their units with a meager annual sales turnover of Rs. 1,00,000 to Rs. 50,00,000. Table 2 presents the data relating to employment provided across the sales turnover.

Table 1
Investment and Employment Generation

Investment (In $.)													
EMPLOYEES (No.)	**>2,00,000**		**2,00,000 to 5,00,000**		**5,00,000 to 10,00,000**		**10,00,000 to 20,00,000**		**20,00,000 to 50,00,000**		**>50,00,000**		**TOTAL**
	No.	**X^2**	**No.**	**X^2**	**No.**	**X^2**	**No.**	**X^2**	**No.**	**X^2**	**No.**	**X^2**	
Self	13	29.64	0	3.74	0	2.24	0	1.82	0	1.09	0	0.88	13
1 to 3	71	31.37	51	1.52	19	1.71	6	10.59	2	8.84	0	10.13	149
3 to 6	37	0.38	68	8.84	33	0.75	18	1.13	8	2.48	1	9.31	165
6 to 9	0	15.62	15	0.54	16	2.46	20	14.17	7	0.55	5	0.12	63
9 to 12	2	7.28	6	3.51	12	2.60	18	22.75	6	1.44	0	2.99	44
12 to 15	0	3.22	2	0.81	1	0.68	5	5.56	3	3.33	2	1.41	13
15 to 75	1	11.23	2	11.53	5	1.86	3	2.63	16	29.95	26	139.18	53
TOTAL	**124**	**98.74**	**144**	**30.49**	**86**	**12.30**	**70**	**58.65**	**42**	**47.68**	**34**	**164.02**	**500**

Source: Primary Data

Table 2
Sales Turnover and Employment Generation

Employees (No.)	Sales (In $.) 100000 to 200000		2,00,000 to 5,00,000		5,00,000 to 10,00,000		10,00,000 to 20,00,000		20,00,000 to 50,00,000		500000 to 50000000		Total
	No.	X^2	No.	X^2	No.	X^2	No.	X^2	No.	X^2	No.	X^2	
Self	12	17.27	1	1.77	0	1.90	0	2.24	0	0.49	0	1.04	**13**
1 to 3	85	37.93	41	0.03	11	5.32	11	8.35	1	3.84	0	11.92	**149**
3 to 6	44	0.48	66	10.73	27	0.35	21	1.92	3	1.71	4	6.41	**165**
6 to 9	6	8.58	10	2.81	14	2.51	26	21.22	4	1.08	3	0.83	**63**
9 to 12	0	13.02	10	0.27	12	4.83	16	9.39	4	3.24	2	0.66	**44**
12 to 15	0	3.85	2	0.63	3	0.64	4	1.39	3	12.71	1	0.00	**13**
15 to 75	1	13.75	4	7.33	6	0.39	8	0.14	4	1.96	30	156.50	**53**
Total	**148**	**94.87**	**134**	**23.57**	**73**	**15.94**	**86**	**44.65**	**19**	**25.03**	**40**	**177.36**	**500**

Source: Primary Data

X^2=411.88 Co-efficient of Contingency=

$$\sqrt{\frac{x^2}{x^2+N}} = \sqrt{\frac{381.42}{381.42+500}} = 0.658$$

Inference: Since the co-efficient of contingency is >0.5, there is significant relationship between sales turnover and employment generation.

Hypothesis Testing

Since value of co-efficient of contingency is 0.658 which is greater than 0.5, the second alternative hypothesis that **"There is significant association between turnover and employment generation"** is accepted.

3. Nature of Activity and Employment Generation

The entrepreneurs engage in production, processing, trading and servicing activities. The industrial entrepreneurs usually provide employment to large number of people, while the scope for providing employment is limited in trading organizations. The availability of raw materials, geographical features, entrepreneurs' willingness to take the risk etc., will influence the nature of the units coming up in that area. Big manufacturing units are limited in hilly regions compared to *maidan* regions. For instance in states like Uttaranchal and Chattisgad, big manufacturing units cannot be seen. But large number of sugar factories are concentrated in *maidan* part of Uttar Pradesh and Maharastra. Large part of the study area is bounded by forest and the district stood first in terms of forest area. Hence the scope for establishment of bigger units is limited. The provision/generation of employment across nature activity is analyzed with below Table.3.

Table 3
Nature Of Activity and Employment Generation

Employees (No.)	Nature of Activity (In $.) Manufacturing			Processing			Service			Trade			TOTAL
	O	E	X^2	O	E	X^2	O	E	X^2	O	E	X^2	
Self	35	66.16	14.67	9	20.86	6.74	73	39.93	27.38	32	22.05	4.49	**149**
1 to 3	78	73.26	0.31	21	23.10	0.19	37	44.22	1.18	29	24.42	0.86	**165**
3 to 6	30	27.97	0.15	13	8.82	1.98	12	16.88	1.41	8	9.32	0.19	**63**
6 to 9	30	19.54	5.60	9	6.16	1.31	3	11.79	6.56	2	6.51	3.13	**44**
9 to 12	9	5.77	1.81	4	1.82	2.61	0	3.48	3.48	0	1.92	1.92	**13**
12 to 15	37	23.53	7.71	13	7.42	4.20	1	14.20	12.28	2	7.84	4.35	**53**
15 to 75	3	5.77	1.33	1	1.82	0.37	8	3.48	5.85	1	1.92	0.44	**13**
TOTAL	**222**		**31.58**	**70**		**17.40**	**134**		**58.14**	**74**		**15.38**	**500**

Source: Primary Data
Note: Main activity of the unit is considered to calculate number of employees working.

X^2=122.5 Co-efficient of Contingency=

$$\sqrt{\frac{x^2}{x^2+N}} = \sqrt{\frac{122.5}{122.5+500}} = 0.44$$

Inference: Since the co-efficient of contingency is <0.5, there is no relationship between nature of activity and employment generation.

Hypothesis Testing

Since value of co-efficient of contingency is 0.44, which is less than 0.5, the third null hypothesis that **"There is no significant association between activity and employment generation"** is not possible to reject.

4. Supporting Role

An entrepreneur on reaching a particular stage or on reaching his destiny can support other to start an ancillary unit or develop a supporting unit. The assistance or support can also be given by offering training to prospective entrepreneurs, providing technology, finance, materials, raw-material supply orders, moral support etc. The study revealed that out of 500 entrepreneurs, 181 entrepreneurs constituting 36.20 percent to total have supported the others in becoming the entrepreneurs.

5. Conclusion

The paper in brief analyzed the contribution of entrepreneurs in a thinly populated district by providing employment and supporting others in becoming entrepreneurs. The generation, sales turnover and employment generation but nature of activity had played little role with employment generation. It is observed that the entrepreneurs in the study area have provided employment to a maximum of 75 persons in the study area.

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Effectiveness of Video Teleconferencing in Teaching – Learning in Open Distance Learning Institutions in India

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The people who are working for open and distance education need to have sound knowledge of systemic issues (i.e. issues pertaining to teaching at distance and its methodologies) and at the same time, they should have sound knowledge of their own discipline of study. The concept of education may be defined as " any meaningful communication " whereas , if it is written or produced in multi/multiple media then it is called open and distance education. In the developing countries' context, particularly, in the age of globalization, it is perceived that the age-old bullock cart and the aircraft are going together. In the teaching learning methodologies at distance, a blended learning approach is gaining movement, wherein the method and media are meaningfully blended, based on the context, purpose and relevance. The learning environments of today are gradually being transformed by the use of Media ICTs and the use of multimedia technologies has become a vital component of the teaching learning process. The extensive use of multimedia in education depicts the convergence of the developing computing technology and internet technology leading to an enriched teaching learning process. Educational multimedia systems endeavor to make learning easier, more convenient, and thus more effective. Radio and Television have been used to deliver innovative educational content, as they have a wider reach. This paper presents the use and effectiveness of Video – Teleconferencing technology in Open Distance Learning (*ODL) in India. Besides, it also analyses the practices of two leading ODL Institutes in India, IGNOU and BRAOU to enhance "interactivity "between Learners and Teachers. And it briefly touches on Tony Bates model for selection of appropriate technologies in ODL. Finally, the paper proposes a framework on how teleconferencing can be more effectively utilized in ODL.*

Keywords: Open Distance Learning, Video Conferencing, Multimedia, Teaching- Learning, Effectiveness, Evaluation

Introduction

India, with over 1.2 billion population, has a huge demand for higher education. The conventional system of face-to-face education alone will not able to meet the continuously growing demand. Open Distance Learning (ODL), which is an organized form of self-study, in which teaching-learning is carried out remotely, can be a powerful tool to bridge the huge demand-supply gap and can provide access to education for anyone from anywhere and any time. ODL owes its origin largely to the fast paced socio-cultural, political and technological growth of the modern era. The concept of education may be defined as " any meaningful communication " whereas , if it is written or produced in multi/multiple media then it is called open and distance

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education . Dohmen (1977) views ODL as "a systematically organized form of self-study, in which student counseling, the presentation of learning material and securing and supervising of students is carried out remotely by a team of teachers, each of whom has responsibilities". It is made possible at a distance by means of media which can cover long distances.

The National Policy of Education (1986) expressed the need for utilizing all available media for educational purpose. Distance teaching-learning process is being identified as multi-/multiple media learning system, i.e. learning through multi-media like audio-video, radio, television, teleconferencing, and through other electronic media. "The technology mediation helps in overcoming the space and time limitations and design educational process based on learner's needs. The mismatch between supply and demands, quality issues can be balanced through leveraging technology deployment .The basic concept of ODL, being its availability anywhere, everywhere and all time education, finally the whole ICT issue should not be seen as a religious practice or as a dogma. On the contrary, it should be viewed as one of the important tool to practice teaching-learning process" (R.Satyanarayana, 2002). ISRO originally used INSAT for one-way video two-way audio in the 1993 for school and collegiate educational purposes and in-service training. This system, called as the Training Development and Communication Channel (TDCC) is a regular operating system since 1995.

India with over 1.21 billion people (2011 census), which is more than a sixth of the world's population, is projected to be the world's most populated country by 2025 , with huge demand for higher education. The conventional system of education alone will not able to meet the continuously growing demand. Presently, India has the rare distinction of having one national Open University, fourteen state open universities and 200 dual mode universities.

Use of technology in Open Distance Learning – Role of Video conferencing

Breath-taking developments in Information Communication Technology (ICT) have been effective in increasing the efficiency and productivity of economies, industries and organizations. Video conferencing is one of the most notable innovative technologies of the current century. This new technology , for some time, considered to be of great values for businesses, is now being used increasingly in education as an enabler to improve teaching-learning effectiveness in ODL. The pressing need for bridging the gap between the conventional method of education and the burgeoning learner community led to the use of educational teleconferencing, as a powerful medium for distance learning.

The only way for our education system can reach the learners in the widely dispersed remote areas of the country, particularly considering the huge demand-supply gap for qualified teachers, is through technologies like video conferencing. The use of technology in ODL can provide immense support to the teaching/learning process by increasing the interactivity, improving the structure and organization of materials, overcoming the cost and distance barriers, providing access to remote databases and the knowledge pool apart from providing rapid feedback that enhances counseling and evaluation. Tele-counseling / teleconferencing can be a cheaper alternative, which provides an opportunity for learner-teacher interface through audio mode. Teleconferencing is an electronic means which can bring together learners in groups at different (but limited) locations and discuss their problems with the teacher/tutor stationed at a different location.

Types of Teleconferencing and how they can Enhance Learning at a Distance

There are three types of teleconferencing:

1. Audio teleconferencing
2. Video teleconferencing
3. Computer teleconferencing.

The last two types of teleconferencing are widely used in the distance education

Video teleconferencing (also video conferencing) combines the audio and visual media to provide interactive voice communications and television pictures. The images include anything that can be captured by a television camera. Though full motion video (such as that transmitted on home television) is the most familiar technology, a number of options exist, including freeze-frame television, compressed video systems, and full motion video systems. It is a set of interactive telecommunication technologies which allows two or more locations to interact via two-way video and audio transmissions simultaneously. It has also been called visual collaboration and is a type of groupware. Video teleconferencing has become the most viable solution for distance education.

Computer conferencing permits two or more people to communicate with each other via computer terminals in a non-real-time mode. It is like "electronic mail" because the user can put a message into the computer and have it retrieved and answered later. But conferencing technology goes further. Specific software programs have been developed that permit members of a conference to interact with each other and to access a wide variety of stored information relevant to their objectives. Computer conferencing adapts to course teaching, student counseling, and informed information exchange. Interactive television (ITV) is emerging as a new media and a tool for conferencing, training and education. ITV is a television with interactive content. It refers to two way electronic communication between two or more groups or three or more individuals who are in separate locations. It combines traditional TV watching with interactivity of the internet and the personal computer. (Madhu Parhar, 2006)

Multiplier effect of Teleconferencing system

Every teleconferencing offers multiplying benefits. The recordings of all these sessions can also be made into a learning material repository. All the teleconferencing sessions are recorded and copied onto CD/VCD's, which are made available at the study centers. This helps in repeated use of the material by learners, who might have missed the session, or for may repeat it, for better understanding and future references of the study material. The reactions and ideas of the learners that are collected serve as inputs for further systematic evaluation of the teleconferences. "The ODL system has to collaborate and cooperate without reinventing the wheel. Therefore, it is necessary to provide space for innovation in diversity. There is a need to encourage competition in collaboration and one of the ways would be to create a pool of best materials so that these are available off the shelf with due recognition to the contributing institutions. Moreover, moving towards e-learning and creating national repositories will enable us to compete globally in consortia mode". (V.Venkaiah, 2006).

Teleconferencing enables dispersal of the learning resources, simultaneously among several geographically dispersed learners in minimal time. The multiplier effect is observed by training the trainers with uniform content. Also, the biggest advantage is the repeatability of training courses/materials and their updating and dissemination despite of the geographic diversity. The increased interaction capability naturally results in increased learning gains. Various user groups share the network it is also possible to organize specific video conferencing sessions for a separately identified group with different needs. All these advantages result in tremendous cost-cutting in travel, logistics and in repetition of teaching infrastructure. (Madhu Parhar, 2006). Another advantage of the multiplier effect is that it contributes to the repository of digital learning material/ knowledge and enhances the learning process of the learners of the institution.

ICT usage in ODL in India

In India, a number of initiatives aimed at promoting the use of ICT have been taken up. According to World Bank report, almost all the states in the country are implementing central schemes such as ICT @ Schools, SSA, Mission on Education through ICT and have significant number of students enrolled in open learning systems at the school and college levels. There is a diffusion of ICTs in Indian Universities and colleges to meet the educational requirements of

today. A number of ODL Institutions in India have been using ICT and media to improve effectiveness of teaching-learning processes. In the following paragraphs, an attempt is made to analyse the use of ICT and teleconferencing, in particular, in two leading ODI institutions in India, Indira Gandhi National Open University (IGNOU) and Dr.B.R.Ambedkar Open University (BRAOU).

Indira Gandhi National Open University – The People's University of India

With the inspiration and support from the UKOU and Japan, the Indira Gandhi National Open University (IGNOU) was established on September 20, 1985 by an Act of Parliament, for development of higher education in the country through the Open and Distance Learning (ODL) method. The "People's University" as it is aptly called, has currently over 228 programs of study through 2,000 courses with staggering 3 million students. IGNOU offers need based academic, professional, vocational generating and skill oriented programmes, leading to certificates, diplomas and degrees (Bachelor's, Master's and Doctoral). The focus of the programmes is to meet various academic and employment needs of the people, especially those of the disadvantaged sections of the society.

Multimedia Approach at IGNOU

IGNOU, a leader in the field of ODL, has adopted a multimedia approach for reaching out to its learners. Different communication technologies are used in IGNOU's instructional system though with technological developments over time there have been significant changes in the use of different media. The instructional packages for learners include self-instructional print and audio/video materials, radio and television broadcasts, interactive radio counselling, face-to-face counseling, laboratory and hands-on experience, teleconferencing, videoconferencing, CD-ROMs, and Web-based content delivery. IGNOU has taken certain major initiatives towards the development of interactive multimedia content and learner support through web-based platforms for the distance learners

IGNOU currently offers a range of programs in different disciplines and at different levels (Certificate, Diploma, PG Diploma, Bachelors degree, post-graduate degree and Doctorate). All the academic programmes of the university have multi-media support with facilities for audio, video, radio, television, interactive radio and video counseling, and teleconferencing. IGNOU runs a 24-hour educational TV channel Gyan Darshan in collaboration with other institutions of higher learning. Gyan Vani is a huge cooperative network of FM radio stations, exclusively devoted to education.

IGNOU adopts a "Blended Learning" approach, which is essentially a judicious blend of **two** different learning environments, traditional face-to-face classroom methods and the modern state-of-the-art-technology video teleconferencing sessions. (Murthy & Satyanarayana, 2006). IGNOU has established a training unit, Staff Training and Research Institute of Distance Education (STRIDE), which offers programmes not only to its staff but also to other ODL institutions. STRIDE uses both face to face and modern technology like Edusat and others in providing training to their own widespread network of Regional Centres (RCs) and Study centres (SCs) and other ODL institutions.

Collaboration between IGNOU and ISRO

ISRO experimented with Training and Development Communication Channel (TDCC) which supports one-way video-two way teleconferencing interactive networks for education and training to introduce interactivity in teaching instructions. TDCC Proposed to utilize exclusively for distance education and Interactive Training Programmes (ITPs) by states like Karnataka and Orissa. Nevertheless, to enhance the interactivity with the learners, one - way video, two - way audio communication facility is being offered by EMPC-IGNOU jointly with Indian Space Research Organization (ISRO). This satellite based communication in real time is made available on the extended C-band transponder of INSAT 2C. It is a multiple-user facility being shared with other educational and training organizations in the country. IGNOU uses the facility for following activities: Tele-

counseling to student groups: Training Study Centre Counsellors/ Co-ordinators Administrative interaction with Regional Centre functionaries Extended Contact Programmes (ECP) with students.

eGyanKosh

Open educational resources (OER) are digital materials that can be re-used for teaching, learning, research and more, made available for free through open licenses, which allow uses of the materials that would not be easily permitted under copyright alone. Online video is a flexible learning resource aimed to enhancing teaching and learning with digitalized resources, which can be used in a wide spectrum of teaching spaces. It allows peer groups to interact with each other and allows for more accessibility. IGNOU's portal, eGyanKosh, shares digital learning resources, print and audio-video content developed by open and learning institutions in India. The learner has better opportunity to access the required material (the recorded and edited teleconferencing sessions) at any time from any place from the eGyankosh

Dr.B.R.Ambedkar Open University - the first open university at the state level

Dr.B.R.Ambedkar Open University (BRAOU), previously known as Andhra Pradesh Open University, was the first Open University at the state level, established in Hyderabad in August 1982. The university, with its motto "Education at Your Doorstep", operates with over 206 study centers across the state. The special feature of BRAOU is that it offers equal access to higher education; especially to the socially disadvantaged, the geographically isolated with no access to higher education , women and working people who are aspiring to improve their academic and professional skills. As with any open university, BRAOU offers flexibility in terms of admission, choice of programmes, duration and age requirements, teaching methods and evaluation procedures. (BROU profile 2011). It offers undergraduate, postgraduate and research programmes in a range of disciplines.

Multi-media teaching-learning approach at BRAOU

BRAOU follows a multi-media teaching-learning approach comprising of self-learning print material, supported by audio, video lessons and regular broadcast of lessons through All India Radio. The University started Telecast of Video lessons through Doordarshan Regional Channel from 1999. "Since 2002, BRAOU has been delivering telelectures (three hours a week) through interactive channel of Mana TV, a Ku band channel on INSAT -3C owned by the Government of Andhra Pradesh. BRAOU has also been organizing teleconferencing on Doordarshan Kendra Hyderabad's regional transmission (five days a week) to ensure deeper coverage.

What technologies to use in Open Distance Learning?

Today, a plethora of Information and Communications Technologies are available that can be deployed to make teaching-learning more effective in an ODL Institution**.** A question arises as to which technologies are to be selected in a specific instance, as profile of learners, type of the course, course objectives, duration etc may vary. Tony Bates (1995) created a framework for selecting learning technologies, which is still relevant today. One of his main concerns, prompting the development of ACTIONS, was the way face to face course material was adapted for web or other distance learning approaches. Bates felt the traditional remote instructor concept is nothing more than face-to-face instruction, without direct interaction. Bates also felt that these specific scenarios often fail to take advantage of the unique benefits that are available through the specific technology being used. The organizing framework that Bates created is called ACTIONS, which stands for Access, Cost, Teaching and learning

implications, Interaction, Organizational issues, Novelty and Speed. These criteria, however, need to be contextualized before application. The following is a brief description of these criteria, with reference to Tele Conferencing.:

Access:
Easy accessibility of media and technology to the teachers as well as the learners is the most important variable. The learners must be able to easily comprehend both the language and the technology.

Cost:
It is the cost which decides upon the choice of the technology and the media. However, in teleconferencing, development, delivery and interaction is a simultaneous process. The unit cost, i.e., the cost per leaner is a critical deciding factor.

Teaching and Learning:
In order to achieve the specific teaching-learning objectives, media may be used as a supplementary independent complementary or in an integrated manner.

Interactivity and User-friendliness:
Another critical factor is the ability of the media used to facilitate interactivity. Also, both, the teaching and learning community must be at each to use the technology.

Organizational Issues:
The strengths and weakness of the organization will obviously determine the quality production, sustainability of media and use.

Novelty:
Novel and state of the art technology and its adaptation in the teleconferencing sessions is another critical factor.

Speed:
The preparedness of the teaching faculty in order to adapt integrate the new technology at hand contributes greatly to the success of teleconferencing session.

How can a teleconference system be used effectively?

In order that Teleconferencing is effective, meticulous planning is of vital importance. It is important to understand the needs and the aptitudes of the participating learners, before content and duration of the session are decided. There is need for effective co-ordination among the staff involved in the operation of the teleconferencing. Preparatory material like printed guides, including charts and diagrams, must reach the students well in advance to enable them to effectively participate in the session. The printed material enriches the video teleconferencing session. It is very important for the learner to be prepared well in advance about the content, the learning objectives of the session and about the teleconferencing system as a whole. The learner must be psychologically prepared to interact with the teacher through the audio system. The instructor / facilitator may adopt a friendly and informal attitude to add the human touch to the discussion and must speak directly into the camera with a clear audible voice. It is imperative for the teacher to possess sound communication skills. Adequate time must be allocated for interactive discussions, which may also include question-answer sessions.

Parameters for evaluation of effectiveness

Following parameters are used to judge the usage, interactivity and its effectiveness in using video-conferencing technology in teaching /learning process in ODL.

Usage: *O*DL Institutions made a humble attempt to use the state of the art technology which includes multi media packages for teaching and learning process to impart knowledge to isolated learner in the ODL institutions. While accessing

the usage the interactivity design its teleconferencing sessions are taken as important parameters, this is to be studied in this work as effective tool to judge its usage, however, the experience is an important parameter in any media multiple media educational system.

Interactivity: While studying the usage of media the important parameter is its interactivity, the interactivity between teacher and leaner ends. A Videoconference (also known as a video teleconference) is a set of interactive telecommunication technologies which allow two or more locations to interact via two-way video and audio transmissions simultaneously. It has also been called visual collaboration and is a type of groupware interactivity is otherwise linked with the usage of video conferencing by its effectiveness is to be judged.

Effectiveness: effectiveness is another parameter to judge the video conference usage, interactions and its effectiveness. The gambit of ODL is sad to be the gambit of learners support system.Where the satisfaction and achievement in times of understanding knowledge status is very important in such process. The ODL learner levels of participation also judged beside experts' comments/opinions on (exposed factor) playback recorded video conferencing sessions are also viewed from the general public point of view.

How to Evaluate Effectiveness?

In order to evaluate effectiveness of video conferencing in ODL Institutions, a survey must be conducted , which consists of questionnaires prepared covering a range of pedagogic, content, access, and effectiveness issues related to teleconferencing. In-depth interviews need to be conducted - informal as well as formal – with experts who are associated with teleconferencing system at present and past schedules. In addition, observation method will be used during the scheduled teleconferencing sessions of the ODL Institutions.

Sourcing of Data

The following means are adopted for sourcing data and information for the study:

- Feedback from teachers
- Feedback from learners
- ·Interviews with senior officials and other prominent persons those are associated with the video teleconferencing at present or in the past.
- Researcher's own first-hand experience

Conclusion

Teleconferencing systems, if used effectively, can be an enabler of effective teaching-learning processes in ODLs. More so, in a vast country like India, it can be a powerful tool in delivery of education to any one, anywhere, any time, and cost effectively. However, it needs meticulous planning and impeccable implementation to realize its benefits. Also, there is need for periodic evaluation of such systems so that issues, if any can be addressed.

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Information Technology Initiative at Life Insurance Corporation (LIC) of India

Tulsi Modi[1] and Dipak kr. Shukla[2]

A major technology initiative at Life Insurance Corporation (LIC) of India started in the year 2012-13 being on a high note for online sale of policies. In addition to the process of eFEAP implementation which was done in all the offices, e-audit had also been developed and released. The completion of Enterprise Document Management System (EDMS) project was a vital job done and the gearing up the Enterprise Portal Solution (EPS) in the Internet was a major success. More services for the convenience of the policy holders were introduced. LICMobile, an android based smartphones was deployed for the general public. Datawarehouse, such as LIC's CADW that stores customers databases for the decision making processes have also been deployed being the largest life insurance customer databases in the world. A huge savings in cost has also been brought about by utilizing the video conferencing units at all divisions of LIC. This study depicts the key success factors of information technology initiatives done at LIC of India.

***Keywords**: Technology, eFEAP, EDMS, project, EPS, smartphones, datawarehouse.*

Introduction

Life Insurance Corporation (LIC) of India, established under LIC Act, 1956, is the largest insurer in India and has spearheaded the financial and infrastructure development of the nation. The performance of LIC has been exemplary, as it has been growing from strength to strength, be it customer base, agency network, branch office network, and the like. LIC has played a significant role in spreading life insurance among the masses and mobilization of people's money for people's welfare. Even after the entry of private insurers for almost a decade now, LIC continues to be the frontrunner in the industry in terms of market share in life insurance.LIC today renders service to its customers through 8 Zonal offices located at Mumbai, Delhi, Kolkata, Chennai, Hyderabad, Kanpur Bhopal and Patna. There are 113 Divisional Offices, 2048 branches, 1275 Satellite Offices (SOs), over 1.16 lakh employees and 11.72 lakh agents. Besides life insurance, through its various subsidiaries, it is involved in providing various financial services viz. Pension (LIC Pension Fund Ltd.), HousingFinance (LIC HFL Ltd), Mutual Fund (LIC Nomura MF), Credit cards (LIC Card Services Ltd), Financial Products distribution (LIC HFL Financial Services Ltd) and LIC HFL Care Homes Ltd. It also provides insurance services in several countries abroad through branch offices, Joint Ventures (JVs) and a wholly owned subsidiary.

The Information Age is a global phenomenon that is reshaping economies and blurring geographic borders. IT significantly increases the range of potential activities for businesses, enabling organizations to become leader in the global economy. The year 2012-13 had been important for LIC of India as major information technology initiatives had been taken to render the various services not only to its customers but also to all the stakeholders. A major technology initiative that started in the year 2012-13 on a high note was the launch of the systems for online sale of policies. The process of eFEAP implementation that was done in all the offices and e-audit had also been developed and released as a part of software development endeavor. The completion of EDMS project was a vital job done and the gearing up the

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Enterprise Portal Solution (EPS) in the Internet was a major success. LIC has strategically provided this web-based self-service interface to all the stakeholders. More and more services for the convenience of the policy holders were introduced. LICMobile, LIC's official in-house and an android based smartphones was deployed for the general public. Datawarehouse which stores the customers databases for the decision making process has also been deployed in the name LIC's CADW being the largest life insurance customer databases in the world. A huge savings in cost has been brought about by utilizing the video conferencing units at all divisions of LIC of India. The key success factors of information technology initiatives are being depicted here.

All the branches and units are computerized and connected with other offices of the Corporation through a Wide Area Network. Corporation has also launched portals for customers and agents. The Corporation has provision for premium calculator, premium payment gateway and online underwriting (limited) already available on its website www.licindia.in.

2. Objectives of the Study

(1) To understand the initiatives done in the field of information technology by LIC of India in the recent years.

(2) To analyse the effect of information technology initiatives from customer's perspective.

3. Research Methodology

The present study is based on secondary data. Data and information have been extracted from Annual Reports of IRDA and LIC of India. The information so collected has been classified, and analysed as per the objectives of the study.

4. Key success factor

a. eFEAP

eFEAP, Enterprise Front End Application Package, is the core application that has been developed in MF Cobol with data storage in MySQL is centralized through Linux operating System. The application is J2EE compliant and Glassfish is the web server. eFEAP is an end to end application taking care of all operational activities, that is, from proposal data capture to all types of policy exits. The system has the main data source and feeds other systems like ODS/Portal and CADW (Corporate Active Data Warehouse) in real time as well as batch processing. It is also integrated with document management system and with Tibco as the messaging layer.

The year 2012-13 was one of consolidation, with the eFEAP, that is, LIC's core insurance systems, stabilizing and growing in scope. The process of eFEAP implementation in all offices was completed during the year. Zonal offices and central offices also have adopted the eFEAP packages with the flow of data have become more efficient and smooth. The 113 divisions that have data centres are enhanced with all infrastructure facilities with fine tuning resulting into minimal chances of failure. Besides, e-audit concept has been thoroughly developed and released as a part of software development process. All types of policy holders and management payments have got the NEFT facility. As Hindi is our national language and LIC operates in many parts of India where various other regional languages prevail so efforts are also being done to use Hindi and other Indian languages into eFEAP. SMS messaging is also being utilized for passing information to customers. Claim monitoring is one of the vital things that is being monitored from central office and the facility given for it is supposed to be the best ever claim settlement performance in recent times. For the overseas branches, the eLife package that is implemented in Sri Lanka and Nepal has been aligned to the Singapore office requirement for product design and service.

b. Enterprise Document Management System (EDMS)

An electronic document management system (EDMS) is a software system for organising and storing different kinds of documents. This type of system is a more particular kind of document management system, a more general type of storage system that helps users to organize and store paper or digital documents. EDMS refers more specifically to a software system that handles digital documents, rather than paper documents, although in some instances, these systems may also handle digital scanned versions of original paper documents. An electronic document management provides a way to centrally store a large volume of digital documents. Many of these systems also include features for efficient document retrieval. All efforts have been taken to speed up the completion of EDMS project by tracing all missing/ excess policies and incremental documents.

c. Enterprise Portal Solution (EPS)

Enterprise Portal Software (EPS) is a prepackaged software kit used by the enterprise to integrate its information and processes. Organizations use portals primarily to aggregate information from a number of different sources, including disparate systems, and provide this information to authorized users in a neatly managed single screen or system. EPS usually offer a Web-based interface to provide a secure unified access point through which information is aggregated to application-specific portlets. Enterprise Portal Software lets authorized users access Web services, and portals can be combined to form portal networks which can cover an organization's entire enterprise system.

EPS is the internet face of LIC since November 2005 and well geared to handle all e-business initiatives in the years to come. LIC has strategically provided this web-based self-service interface to all stakeholders, that is, policyholders, agents, development officers, etc. to get relevant information from a single point. Currently, the focus is on providing alternative channels for premium collections using the online transaction processing capabilities.

d. Channels for Premium Payment

It has been the constant endeavor of LIC to introduce more and more services for the convenience for its policy holders. Facilities such as Premium Points, Life Plus centers, Online Premium payments, Axis Bank Counters, franchisees namely Suvidhaa, APOnline, MP online, EasyBill, etc. are available throughout India to facilitate renewal of premium payments. At these offices, policyholders can pay renewal premiums and get an authorized receipt for the payment done, being round the clock. Nearly 30,000 empowered agents and business associates and 5,000 franchisees are involved in this work. The share of such alternative channels of premium payment rose from 27% of all India premium collection transactions during the financial year (FY) 2011-12 to nearly 35% in the FY 2012-13 and more than 12.77 crore policy holders are benefiting from these facilities. SMS based enquiry services have been introduced which customers are using for gathering information relating to the due date of the next premium, nomination, bonus, loan and revival details, etc., by sending a simple SMS message: "ask lic policy number premium/ nom/ bonus/ loan/ revival" to the number 56767877 and 9664996649.

e. Mobile Application and HTML5 Microsite

Mobile application is application software designed to run on smartphones, tablet computers and other mobile devices.

LIC's official in-house developed mobile application for Android based smartphones was deployed for the Android market for

general public in the year 2011-12. LICMobile has been downloaded and installed by more than 2,05,711 users and about 73,000 of them are actively using it. The app is targeted for both customers as well as company's marketing personnel. The app provides options for viewing LIC insurance plans, premium calculation, checking policy details, and applying for a new policy. The app also serves notifications for due premium, matured and lapsed policies, and due survival benefits. This has enabled LIC to reach the young customers and agents and it has opened up more channel for providing customer service. For LIC agents, the app provides a customer directory and their premium calendar with notifications for due premium, lapsed policies, customer birthdays, and official circulars. There's also a branch locator feature, which gives you locations of LIC branches in a particular region with complete address and contact details.

Customer can view enrolled policies, policy status and premium calendar after entering their customer portal user-id and password. Agents can view policy enquiry and premium calendar after entering their agency portal user-id and password. Features such as, view policy details, premium calculator, information about LIC's various plans, compare premium for plans, payment of renewal premium, apply for a product and branch locator are available in the mobile app for customers.

LIC has also provided an HTML5 micro-site for mobile handsets, smartphones, tablets, etc. on Symbian, Windows mobile, IOS (Apple), RIM (Blackberry) and Java MIDP operating systems. Here access is possible using any HTML5 compliant browser and connectivity to internet on the mobile handset, smartphones, tablet, etc. and no application is required to be downloaded and installed on the handset.

If one is a LIC customer, there's no reason s/he shouldn't install this very well designed and utility app. One can download it for free for Windows Phone 8 devices from the Windows simple menu-based program, easy to install and run. All reports generated through this LIC application match with LIC's reports.

f. Corporate Active Data Warehouse (CADW)

A data warehouse is a relational database that is designed for query and analysis rather than for transaction processing. It usually contains historical data derived from transaction data, but it can include data from other sources. It separates analysis workload from transaction workload and enables an organization to consolidate data from several sources. In addition to a relational database, a data warehouse environment includes an extraction, transportation/transformation, and loading (ETL) solution, an online analytical processing (OLAP) engine, client analysis tools, and other applications that manage the process of gathering data and delivering it to business users.

TERADATA, a division of NCR Corporation, will be providing data warehousing solutions to Life Insurance Corporation. The Corporate Active Data Warehouse will cater to the 160 million policies held by 130 million policyholders and the large volumes of cash transactions that take place. This will enable LIC to understand various usage profiles of the customers and policies in order to customize offerings and bundles and effectively manage them.

Mr T. S. Vijayan, Managing Director of LIC said ,***"We envisage Teradata's data warehousing solutions will empower LIC with tremendous analytical capabilities and help in designing customer-oriented insurance products,"***

LIC's CADW is one of the largest life insurance customer databases in the world. The warehouse has enabled LIC to launch various customer focused campaigns like the

customer contact programs and various targeted marketing campaigns. A major achievement has been to send a single notice for premium falling due in the same month for various policies of an individual customer. The project is also successfully used for generating marketing leads. All these initiatives launched have not only generated huge Return On Investment (ROI) but have also made LIC more visible in the eyes of the customers. Various dashboards for different offices and departments are created by the project and made available to various users.a.

g. Video Conferencing

It is a technology that allows users in different locations to hold face-to-face meetings without having to move to a single location. This technology is particularly convenient for business users in different cities or even different countries because it saves the time, expense and hassle associated with business travel. Uses for video conferencing include holding routine meetings, negotiating business deals and interviewing job candidates. The main advantage of video conferencing over teleconferencing is that users can see each other, which allows them to develop stronger relationships. When a video conference is held for informal purposes, it is called a video call or video chat.

All divisions of LIC are provided with video conferencing units, enabling a seamless flow of information between offices from divisional office inwards. This has also brought about huge savings in costs and cut down the delay which could have occurred compared to the travel expenses and time consumption where the interaction required by different participants are face to face at the meeting place.a.

h. Integrated Voice Response System (IVRS)

Interactive voice response (IVR) is a technology that allows humans to interact with computers using voice or a dual-tone multi frequency (DTMF) signaling keypad. IVR allows customers to find answers to their own inquiries by speaking (using the company's speech recognition software) or giving inputs via a telephone keypad. IVR uses prerecorded and dynamically generated audio to interact with customers. The key benefit to IVR systems is that they can handle large volumes of calls, where only simple interactions are required. IVR is also known as a telephone menu or voice response unit.

At LIC Integrated Voice Response System (IVRS) are operating 24x7 from 15 cities providing information to the customers. Any customer can contact the IVRS by dialing Universal Access Number (UAN) 1251.

i. In-house Software

In the financial year 2012-13, LIC introduced the following in-house software jointly developed by ITSD/ITBPR and direct marketing-

- Online engagements of Direct Sales Executives (DSEs).
- Cash flow management wherein the units are sensitized about the importance of receiving renewal premium.
- Corporate business module where the employer has been given an opportunity to get the details of the premium paid by the employee through LIC website for direct integration into income-tax calculation.

Besides above the full-fledged call centre at Ville Parle, Mumbai has the following benefits from information technology-

- All online leads get validated immediately.
- All the proposals registering on online site are navigated through the system seamlessly.
- Validation of all leads received through portal/SMS.

In addition, the direct marketing channel of LIC started with 138 direct sales executives (DSEs) and 6 units as on 01.08.2009 and today LIC DIRECT is the fastest growing and highly productive channel. This channel drives with the values of Passion, Performance and Professionalism. These values and committed professional sales force provide excellent buying experience to customers with enhanced use of IT.

5. Conclusion

After privatization, insurance industry has seen significant growth not only in terms of their business done but also in the initiatives taken to make information technology operational from the stakeholders' point of view. In order to be competitive, LIC has taken new initiatives for the implementation of information technology through eFEAP, EDMS, EPS and LICMobile for smartphones having more than 73,000 active users. A major breakthrough can be seen through the implementation of data warehouse, CADW that can help in efficient and effective reporting and cater to the need of 160 million policy holders. Video conferencing facility has helped in huge savings in cost and time which is a vital issue for any company for its economic purpose. The IVRS and the in-house software developed by the ITSD/ITBPR and direct marketing will make the information flow smooth for the benefit of customers. It can be concluded that the information technology initiatives by LIC of India catered to the various needs of different segments of its stake holders

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National Payments Corporation of India (NPCI) - Introduction of Bank's Cheque Truncation System - Key Features of CTS-2010 & e-Cheques – effective from 1st July 2013

Firdos T.Shroff[1]

Cheque Truncation is one of the ways to compress the clearing cycle to provide faster clearances of local and intercity cheques. Cheque truncation, very loosely defined, 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. The entire processing of cheques and their payment are all governed under the covenants of the Negotiable Instruments Act, 1881, which necessitate that these instruments are in writing and have to be physically presented for payment in due course. After the passage of amendments to the Negotiable Instruments Act 1881 and the IT Act 2000 in the last quarter of 2002 to provide a legal framework for the implementation of cheque truncation and e-cheques in India, the Governor of the Reserve Bank of India, in the midterm review of the Monetary and Credit Policy Statement of October, 2002 had suggested that a Working Group on Cheque Truncation be constituted to suggest an appropriate model suitable to Indian conditions, in view of various models of truncation available the world over. This article focuses on entire processes of introduction of Bank's Cheque Truncation System in India and the mechanism.

Key Words: Cheque Truncation, NI Act, e-Cheques,

Introduction

Processing of paper based cheques constitutes an important segment of the payment and settlement scenario of the India. Settlement of cheques is arrived on the basis of the physical presentation of paper based cheques to the clearing houses of the country for transmission to the drawee banks and for payment thereafter. In view of the need to transport the paper based cheques and the time involved in their processing at various intermediary levels, the total time taken for realisation of cheques has tended to be rather long. The problem gets compounded when cheques are tendered for collection by customers at a branch in a city which is not the actual place of the drawee branch. These are called outstation cheques and these cheques typically take longer realisation periods especially in a geographically large country like India and cases of delays in credit – by more than a fortnight are not uncommon.

The entire processing of cheques and their payment are all governed under the covenants of the Negotiable Instruments Act, 1881, which necessitate that these instruments are in writing and have to be physically presented for payment in due course. The attendant delays on account of not being able to exploit technological alternatives available have been engaging the attention of

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the Reserve Bank of India for some time. After the passage of amendments to the Negotiable Instruments Act 1881 and the IT Act 2000 in the last quarter of 2002 to provide a legal framework for the implementation of cheque truncation and e-cheques in India, the Governor of the Reserve Bank of India, in the midterm review of the Monetary and Credit Policy Statement of October, 2002 had suggested that a Working Group on Cheque Truncation be constituted to suggest an appropriate model suitable to Indian conditions, in view of various models of truncation available the world over.

These apart, it was also felt necessary to consider several operational aspects relating to the processing cycle, technology requirements and the approach to implementation for the introduction of cheque truncation in the country. Further, in order to facilitate debit transfers also in electronic mode, feasibility of e-cheques was also required to be studied.

Cheque Truncation System

"Cheque" - A "cheque" is a bill of exchange drawn on a specified banker and not expressed to be payable otherwise than on demand and it includes the electronic image of a truncated cheque and a cheque in the electronic form.

(*a*) "a cheque in the electronic form" means a cheque which contains the exact mirror image of a paper cheque, and is generated, written and signed in a secure system ensuring the minimum safety standards with the use of digital signature (with or without biometrics signature) and asymmetric crypto system;

(*b*) "a truncated cheque" means a cheque which is truncated during the course of a clearing cycle, either by the clearing house or by the bank whether paying or receiving payment, immediately on generation of an electronic image for transmission, substituting the further physical movement of the cheque in writing.

The cheque is currently the most visible and significant mode of payment in India. In view of the importance of cheque to the retail segment, Magnetic Ink Character Recognition (MICR) technology was introduced by the Reserve Bank of India. MICR technology enabled the banking system to handle the growth in the cheque volumes and to provide faster and efficient clearing services to customers and to do straight through processing using MICR data. Over a period of two decades, a number of MICR Clearing Houses have evolved.

The entire clearing cycle is dependent on the movement of the physical paper cheque from the presenting bank to the drawee bank (branch) as was mandated by the Negotiable Instruments Act prior to its amendment. This bottleneck had an overriding impact on any consideration for improvements or reduction in the cycle time for clearing.

Until very recently, legal covenants in India required the cheque to be presented to the paying branch for payment. The paying branch is the last node in the clearing cycle as it exists in the country, and thus the paper cheque is on the move through the entire cycle from the bank-branch of the collecting bank where it is first deposited to the service branch of the collecting bank, onward to the Clearing House, which acts as a focal point for the cheques of all the banks, and from the Clearing Centre to the paying bank service branch and lastly the paying branch. If the cheque is returned unpaid, it has to re-trace the entire path back to the presenting branch.

Cheque Truncation is one of the ways to compress the clearing cycle to provide faster clearances of local and intercity cheques. Cheque truncation, very loosely defined, 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.

International Scenario

Truncation straddles many countries across the globe on either side of the hemisphere. These include countries like Denmark and Belgium which were the pioneers in the truncation process, having introduced complete cheque

truncation *(dokumentiase clearings)* in the early 1980s itself to the island state of Singapore which is in the final phase of implementation.

Retail payment analysts make a two-fold classification – countries like England, US and France where cheque has always dominated non-cash payments on one hand and the others like Sweden, Norway where ***giro*** transfers have been the dominant modes of non-cash payments. Cheque volumes in the second group have historically been low and from the point of view of truncation,
manageable, and these countries have been successful in introducing truncation in the clearing process. Sweden is the extreme example of achievement of complete truncation where all cheques can be presented and encashed at any bank branch, irrespective of the bank on which they are drawn.

Secondly, the implementation of truncation has invariably been preceded by either the amendment of the existing laws governing cheques and other payment instruments or by the introduction of new laws.

Many countries such as Spain, Italy and Luxemburg have an amount ceiling for the cheques that can be truncated. Cheques which are considered ***low value*** are eligible for truncation whereas the higher value instruments still follow the traditional clearing route.

Under most implementations the cheques are truncated early on in the clearing cycle, typically at the collecting branch level or the collecting bank level.Ireland stands out as an example of late truncation, where 95% of the chequesare truncated at the paying bank stage.

International experiences with cheque truncation show that the geographically smaller countries are the ones that have been able to implement the process of truncation, be it Greece or Singapore or Belgium. Cheque truncation has been less than a complete success in larger countries. USA, for example, is still a laggard in this respect despite having the maximum number of cheques written (237 per head in a year). Nonetheless, it is making progress towards implementation of cheque truncation.

Cheque Truncation Model in India

Therefore, the Group recommended that in India the cheques should be truncated at the Presenting Bank itself and 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.

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 recommended electronic image based cheque truncation.

On the storage location, the Group debated on the idea of the cheque images being stored at by a Central Image Warehousing Agency or by the presenting banks/drawee banks themselves. As per the amended Negotiable Instruments Act, it is the drawee bank that has to certify the printout of the image of the cheque as a proof of payment.

Risks in Cheque Truncation

The introduction of the truncation process will change the roles and the responsibilities of the various participants in the truncation process and may lead to introduction of certain risks that will have to be mitigated. These are mentioned below.

At the presenting bank level, the responsibility to verify the genuineness of the cheque based on the apparent tenor or the visible features of the cheque presented for collection may lead to banks refusing to accepting a genuine cheque or accepting a forged cheque based on a manual scrutiny. Images and MICR data to be sent to the clearing house have to be matched before they are released to the Clearing House.

The Clearing House will have to assume that the data given by the banks is the data meant for that day's clearing and will have to arrive at the settlement based on this assumption. If the MICR data given by the bank is not that matching with the day's image the bank has sent for collection, it may lead to erroneous settlement and large returns.

Truncating cheques entails additional operational risks. Banks will have to take adequate measures to ensure that all necessary safeguards are provided for – in consonance with legal requirements and banking practice while making payments, especially for high value instruments.

The drawee bank has to verify the signature on the image of a cheque. If a drawee bank chooses to verify signatures on the images of cheques above a cutoff amount only, then it runs the risk of paying some forged instruments.

The Warehousing Agency for images and physical storage of cheques might not be able to produce the image or the physical cheque demanded by the bank. This may lead to legal complications and assignment of liabilities. These will have to be covered by suitably drafted agreements and service level agreements between the banks and the Warehousing Agency.

Committee on Cheque Truncation – Study Visit – Singapore

I. Discussions with the officials of the Monetary Authority of Singapore (MAS)

Rationale for Cheque Truncation

- Government of Singapore, being the big user of payment system, decided 10 years ago to bring in electronic mode of payments. A Committee on Electronic Payments, headed by the Government charted a plan and monitored the implementation of it. The country achieved 80% of the target two years ago.

- The same Committee was reconvened to bring efficiency in the GIRO System. Consequent to its recommendations, EasyLink Cards(a kind of contact less cards) and CashCards have been introduced.

- Though the volume of cheques in Singapore (300,000 a day) is not growing and the stated objective is to move towards more electronic mode of payments, the Committee recognised that cheque usage is likely to be one of the preferred mode of payment and therefore the Committee also made recommendations for improving efficiency in the cheque processing systems by way of cheque truncation.

- The business case for Cheque Truncation was a difficult one as it is a high cost affair. Investments required at the SCH and the preferred security features (viz., the PKI) meant high costs.

- The real benefits were seen to come from leveraging the electronic structure created for the cheque truncation for other strategic and economic benefits.

- For the customers, immediate benefit will be the cut-off time for presentation would be elongated from the current 2.00 pm to a later time. Though currently the value is on T+1 basis, later this could be brought down to T+0.

- For the Singapore USD Cheque Clearing, the clearing cycle will be reduced to T+1 from the current T+2.

Model Adopted

- Singapore studied cheque truncation models around the world and decided for truncating the cheques at the presenting bank level, as it brings ultimate efficiency.

-Imaging, as an optional feature, was already available in the country and three large banks have the experience of clearings based on images.

- As for the exact location of truncation, Singapore has adopted a flexible model. Most of the small banks, having one or a few branches, truncate cheques at the branch level using a desk-top reader-scanner.

-Big banks truncate cheques using a service bureau either in-house or outsourced.

- All the cheques are to be truncated irrespective of value. (Hong Kong
and Canada have adopted truncation up to a cut off value only).

Challenges faced

- A Big-bang approach was adopted for implementation. (Hong Kong has adopted an incremental model). Therefore, the project moved as fast as the slowest member.

- New specifications for cheques (both for quality of paper and format) meant elaborate arrangements for manufacturing and printing of new cheques and lead time (6 months) for replacing old cheques. Banks had to resort to some kinds of incentives or the customers to return the old cheques in their possession.

Technical Standards

- SCH determines the technical standards for cheques(paper and format), imaging equipments, image quality, connectivity and archiving.

- There is a certification process. Banks will have to get their systems at branches and service bureaus and the operator of the clearing house have to periodically get their systems audited by the approved information systems auditors like PWC, KPMG and Deloitte.

Return of unpaid images

- Image return when unpaid is valid.

Warehousing of physical cheques

- Centralised warehousing of physical cheques was adopted as a convenient mode and to have common industry practice.

- Charging mechanism has been adopted to discourage demands for physical cheques by the paying bankers.

- It was decided to warehouse the physical cheques for one year. Intends to bring it down later to 6 or even 2 months.

Legal aspects

- Laws amended to legalise cheque truncation.
- Images of cheques valid for payment and return.
- Image processing is to be certified.
- Liabilities for verification of cheques truncated will be with the presenting banks.

Archiving of images

- Centralised archiving has been adopted.
- Images to be available for 7 years.

II. Discussions with BCSIS Ltd., the operator of the Singapore Clearing House - Rationale for Cheque Truncation

- Inefficiencies in collection of cheques are bankers' delight (because of availability of float funds) and customers' nightmare.

- Cheque Truncation is a logical progression/evolution of cheque processing from hand sorting to MICR to Imaging.

- e-Cheque is a technology driven project whereas cheque truncation is customer-oriented project.

- Expected savings (as per a 1998 study) is Singapore Dollars 70 million a year.

Model & Features Adopted

- Covers all the four clearing legs viz., Outward Presentation, Inward Presentation, Return Outward and Return Inward.

- Unique Identifier(25 character including date, bank, machine id and serial number) for each truncated cheque printed on the backside while reading-scanning.

-Common Physical Cheques' Warehouse

- Image Return Document(IRD) a legal instrument
- National Image Archive

- Broadband connectivity and VPN adopted. Dial-up, Leased Line and Asynchronous Transmission Mode(ATM) for transmission of Magnetic Ink Characters Recognition (MICR) Codeline and images.
- Operator's Data Centre General Controls, network architecture, server and OS controls and penetration testing verified/audited through approved IS Auditors.

-Shoe-box desktop reader-scanners or Reader-scanners, Front end, Backend and Archival Web applications at banks' end; CTS host system and National Image Archival system at the Clearing House end.

- Cheques redesigned and reformatted to suit imaging. Common Watermark on the cheques.

- MICR line redesigned to include a check digit to facilitate better quality reading/verification of MICR line despite low-end desktopreader/scanners.

- Cheques scanned on both sides in a single pass.

-Grey Scale image(100 dpi) good for human eye; but adopted Bitonal scale(200 dpi) to facilitate automated signature verification.

- Contingencies whether of single bank or multiple bank failure to be tackled through images on CDs with the help of friendly/guest banks/service bureaus and at CH for operator, through DRS Site.

- Certified authority to review the entire process right from capture to archive including transmission.

- A Steering Committee, an Operations and Legal Committee and an IT and Security Committee.

III. Discussions with the Operations and Legal Committee of the SACH

- Presenting Bankers' new liabilities / responsibilities include verification of physical cheques for apparent alterations, modifications and cheque quality.

-Cheques were redesigned to suit truncation. Design includes equality of paper, watermark, restricted zone for date, amount and signature, and check digit on MICR line.

- Security features on cheques include quality of paper, watermark and cheque digits.

- Empanelled vendors for paper manufacturing, cheque printing and reader-scanners

- Truncation process auditing to include control exercised, machine specification and calibration, no image-change capability and network control.

- Cheque Warehousing charges to be paid by the Paying bankers as the cheques are their property.

- Account opening terms and conditions modified to facilitate truncation, Image Return Documents.

- Images can be retained by the presenting and paying bankers, but for their own internal use; have no legal validity post payment/archiving.
- Post payment/archiving, only a certified image from the Negotiable Instruments Act has legality. Images from the National Archive can be requested for by the presenting and paying bankers. Certified images will be on security paper with watermark.

- Warehousing is merely a safe custody. Only the presenting banker can make a request (only they know the unique cheque).

-Bilateral image exchange was rejected because of problems of sorting physical cheques and images, archiving at multiple locations and certified images from multiple locations.

Committee on Cheque Truncation – Study Visit – Sweden

Major Features of the payment systems in Sweden:

- Swedish payments function under the overall aegis of the central bank of Sweden – Svergis Riksbank, which has as its main objectives the following:
- Safeguarding the value of money – which is achieved through inflation targeting and the effective use of the Repo rate
- Promoting a safe and efficient payment system
- The Payment Systems Division, functioning under the Market Operations Department of the Riksbank looks after

payment systems in general;specifically the followong:
Customer support and sales development
Monitoring of payment operations, including the RTGS operations
Supporting functions are provided by the Financial Stability Department,which looks over the analysis and assessment over banks and financial institutions. The IT department looks is responsible for the computer systems of the Riksbank including the IBM-S/390 mainframe system which is the backbone for the RTGS system of Sweden.

The entire RTGS system of Sweden – called the RIX System (comprising of two systems – the K-RIX for settlement denominated in Swedish Kroner, and the E-RIX System – for settlement denominated in Euro) was developed in house by the Riksbank which also has dedicated staff for the management and maintenance of these systems. Operating in the mainframe, the RTGS system which was developed in COBOL and using DB2 as the database, with CICS as the transaction handler, MQ Series for the messaging middleware and IBM's MERVA for interfacing with banks.

- Cheque truncation was introduced in Sweden in the seventies, with data based processing of the cheques and the generation of the settlement thereof.
- Banks had migrated to the process of 'universal' payment processing – whereby a customer could present a cheque at any bank in Sweden and receive payment. This is facilitated by means of -
    - A unique identification for each account holder, related to the national id for people (banks were the conduit for issue of national ids)
    - Verification of the presentor details at the bank of payment for amounts up to SEK 2500, with telephonic confirmation on funds availability from the drawee bank for amounts greater than SEK 2500.
    - The details of the cheque are then converted into data – by keying in at the paying bank and then the data is sent for clearing and settlement.
    - All banks enter into the agreement for 'universal' processing
    - The fees for such transactions are low and each bank is free to decide its own fees for its customers.
    - The cheques are stored at the paying bank – for a period of ten years as required by law. The data is also preserved for the same period.

Conclusion

The Committee on Cheque Truncation under chairmanship of Dr.R.B.Barman, studied various issues at international scenario on CTS vis-a-vis Indian banking system before implementation of CTS. The commencement CTS-2010 and issuance of new cheque books was indicated by RBI till 31st December 2012. Thereafter, it was to commence from 1st April 2013 and presently its effective date of commence extended upto 1st July2013. Reserve Bank of India and National Payments Corporation of India, deserves appreciation for the enormous task undertaken up by esteemed Committee.

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A Framwork for Requirement Prioritization for Software Products

Sita Devulapalli[1] and Akhil Khare[2]

A new Framework is proposed for requirements prioritization for successive releases of Software products based on the concept of ABC classification, at successive levels based on relevant parameters. There are high cost and low value requirements, where cost and value relate to different parameters at different levels. It is proposed to link the development process methodology to the outcome of Prioritization analysis. The framework helps and provides clear visibility and traceability across Software development life cycle and helps guide quality efforts. Impact of change of release plans can be understood with minimal effort.

Keywords: Requirement Prioritization; Engineering Software; Successive Releases; Framework

Introduction

Software Products utilized in Engineering Applications are complex and related to specific domains, whose core principles undergo changes less frequently. Typically Software products falling under this type start their life with a specific domain application/customer in mind and grow around that application and/or similar applications. And add similar or aligned customers to the products usage.

The products mature in terms of stability and reliability as they are used by different customers for different applications in different environments. At the same time, products undergo modifications to meet further requirements of existing customers and new customers. Products undergo changes to incorporate benefits of advanced technologies. Providing the customers with ever enhancing products is made possible by successive releases of products at varied intervals. Typically successive releases are planned once or twice a year. In the intervening time there are alphas, beta programs, or even frequent interactions with stakeholders – customers, for fine tuning and refining the release at different intervals. The fundamental questions that need to be addressed are - What will be available in the next release? How are the requirements evaluated? Can all the requirements we gather be incorporated or we have cost and time implications, which require us to prioritize the requirements?

This paper makes an attempt to emphasize the nature of applications and requirements related to Engineering domains in section II, III and propose a new framework for requirements prioritization. While defining the framework, the fundamental premise has been that we have requirements of high value and/or cost that need close monitoring and also requirements of medium or low value and/or cost that may require relatively less attention.

Methods frequently referred in literature are described in the section IV. The methods range from simple to complex and are evaluated and compared for varied projects.

The proposed framework and process of prioritization is presented and discussed further

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in section V, VI. Section VII discusses the benefits of the framework

2. Nature of Applications

Dwelling over the nature of applications, Software Products developed for complex Engineering Domains survive for decades as the fundamental domain knowledge changes not so rapidly. Computer aided design for Plant building, Ship building has not changed so much in core design concepts. Coordinate systems have not changed for map making. Core concepts and product cores of Databases, Application Development Platforms and Operating Systems remain intact. Leading software companies in these domains have products surviving for more than 3 decades and mostly meta morphing into different forms but keeping the core stable. In addition, adoption of changes in Software products is risky in terms of huge disruptions and validations and time taken in Production Environments and some of the production cycles run into years. Like the auto industry has been surviving on diesel and petrol engines for long, only changing some parameters and external appearances, quite a few software companies have the core engines intact and tweak related parameters and change the interface aspects.

3. Nature of Requirements

Coming to the nature of requirements, Technology changes and the ease of use - parameters influence the requirements, in addition to additional complex domain related requirements. It may not be feasible to completely specify the requirements a priori. Every requirement may have an extent to which it may be sufficient to meet and it may not be necessary to completely implement in a release. Since the same product gets used by customers for different applications in different industry segments in varied geographical regions, not all requirements are applicable to all customers. It is possible that some of the requirements end up requiring major changes in the core engine of the product while some of the requirements are at usage level – this aspect influences the difficulty of implementation and impacts.

Hence it is imperative that evaluation of sets of requirements that go into successive releases of products with respect to Return On Investment –ROI is undertaken. While there are different aspects or steps to the products release – Road maps, Release planning, Requirements Prioritization - the goal is evaluation for ROI.

4. Methods in Literature

Significant Research and empirical studies have taken place in the area of requirements prioritization and release planning. Methods have evolved for prioritizing requirements based on different parameters - Value and Cost being prominent among them. Analytical Hierarchy Process- AHP is based on pair wise comparison of requirements relative to each other on a scale at successive levels of hierarchy. The method grows in complexity and difficulty for large number of requirements.

Cost-Value approach by Karlsson takes the cost of implementation and value of requirements in to consideration in pair wise comparison. Wiegers method takes in to account value, penalty, cost and risk and proposed weighted value/cost ratio for determining priority. Priority Groups method groups requirements based on different parameters – mostly importance of requirements.

Davis advises simplifying the process and advises Triage at successive levels, taking into account market realities. Industry specific studies for products meeting certain specific base parameters seem to have been very few. This makes the conclusions and comparisons difficult to be applicable or reliable. Other methods frequently discussed in literature are Planning Game, Planning Game combined with AHP, 100 point method or Cumulative Voting. Comparison

of various methods is taken up systematically in.

5. Proposed Framework Considerations

The following assumptions are in order with the premise of the framework proposed -

- The purpose of getting a set of requirements implemented for the next release (time bound) is to maximize the business value of the release.
- A strict ordering of requirements may not be the need. Need is more for a near optimal set of requirements.
- Activities on requirements do not start in serial order, but in parallel in a distributed way.

Three most important factors for determining the release requirements set are

- Realizable Business Value
- Cost of implementation
- Constraints

1) *Realizable Business Value:* is determined based on following understanding -

- Inputs from sales/marketing/executive management/product dev/test/maintenance teams
- A Requirement may satisfy multiple customers
- Specific segments -High Value/medium Value/low Value realizable customers
- Realizable over short/medium/long durations
- Reduces test/maintenance cost
- Marginal development cost
- Opportunity costs

Business value depends on different industries and life cycle stage (new, growing, mature, declining) of the products. It is possible to have many parameters, weighing factors, analysis done to arrive at business value [9]. Methods from any non-software product features' business value determination can be adopted.

Customer Base can be the current or existing customer base requesting for additional features or it could be the ne customers that are likely to get added, given a set of features implemented.

2) *Cost of Implementation:* needs to take into account the following major factors -

- Nature of requirements - Core model changes/Business Logic changes/UI changes.
- Marginal cost – base model exists/ incremental changes needed to implement the requirements
- Cross impacts & verifications costs of implementing a new requirement.
  Resources – availability of development resources
- Opportunity costs – due to non implementation of other requirements

3) *Constraints*: Since a release is always timed to meet customers expected needs, the following Constraints need to be considered for prioritization of requirements -

- Time /duration – minimum time required/ time to market
- Resources – knowledgeable in domain/technology/skill
- Impacts – on existing customers
- Uncertainties – changes imminent

- It is best to do some preprocessing of the RAW Requirements in terms of
- Broad understanding of the collected requirements
- Removing duplicates
- Merging somewhat similar requirements

As Software products are mostly modularized and can be specified by modules/components, grouping requirements with respect to modules helps in determining marginal costs or values easily. Giving way for some amount of approximation is appropriate in the aggregation of many requirements and evaluating with respect to many other parameters – like time and resources required to implement the requirement, time available, compatibility with current product, feasibility of implementation, etc. , especially, in the initial stages.

6. Framework

The Framework is defined as 5 sets based on most used parameters in the sequence of priority determination..

Each set is defined by three classes defined by % value of the respective set parameters. Requirements are grouped in to the classes in the sets in the process of prioritization The % bands may vary from industry to industry and organization to organization to some extent.

Prioritization sets – S1 to S5 and classes/bins – A, B, C within are described in Fig. 1.

The process of applying the Framework is planned to be a layered approach with the following steps-

- Step 1: Evaluate requirements with respect to set 1 and put them in A, B, C bins. Treat each bin separately.
- Step 2: Evaluate requirements in the above bins with respect to set 2 and put them in A, B, C bins. The process can continue only for the bin A also.
- Step 3: Evaluate Next with respect to set 3.
- Step 4: Arrive at time durations with respect to 4
- Step 5: Verify availability of resources with respect to set 5.

The order of preference emerges for the requirements Set through the filtering process.

- **S1.** Business Value(BV) in conjunction with Customer Base (CB) – with classes -
  - A:20% of CB with 70% BV
  - B:30% of CB with 25% BV
  - C:50% of CB with 5% BV
- **S2.** Requirements Applicability with respect to product – with classes
  - A:70% UW, 30% BI, 0% CP
  - B:50% UW, 40% BI, 10% CP
  - C:30% UW, 50% BI, 20% CP

  Where
  UW: User Interface/ Workflow Specific/ Specific Customer Set,
  BI: Business Logic/particular Industry vertical,
  CP: Core/data model level /across the portfolios
- **S3.** Implementation Cost–
  - A: 70% MI,25% NI,5% IR
  - B: 50% MI,40% NI,10% IR
  - C: 30% MI, 50% NI, 20%IR

  Where
  MI: Marginal Implementation, NI: Ne Implementation, IR: Impact Recovery.
- **S4.** Time Requirement –
  - A: 10% L,20% M, 70% S
  - B: 15% L, 25%M,60%S
  - C: 20% L, 30% M, 50% S

  Where
  L: 8 to 16 person weeks, M: 4 to 8 person weeks, S: 2 to 4 person weeks
- **S5.** Resource Requirement –
  - A:10%RC,20%RI,70%RT
  - B:15%RC,25%RI,60%RT
  - C:20%RC,30%,50%RT

  Where
  RC: Resources - Core aware (6y) - domain/ architecture / design/ technology
  RI: Resources - Industry aware (4y) – domain/ design/ technology
  RT: Resources – Technology aware (2y) – Technology/ Skill

Not all sets may require to be used. And once the selected requirements set is arrived at each step, marginal values of benefits and costs of requirements may get modified and feeding this information back and re-evaluating bins may be required.

7. Benefits of the Framework

A. Link to Development process

In addition to arriving at the prioritized requirements set, the suggested process of requirements classification can be extended to determine the development process most suitable for implementation of the requirements as described below.

A sample classification template of requirements using an excel sheet is given in Fig.2.

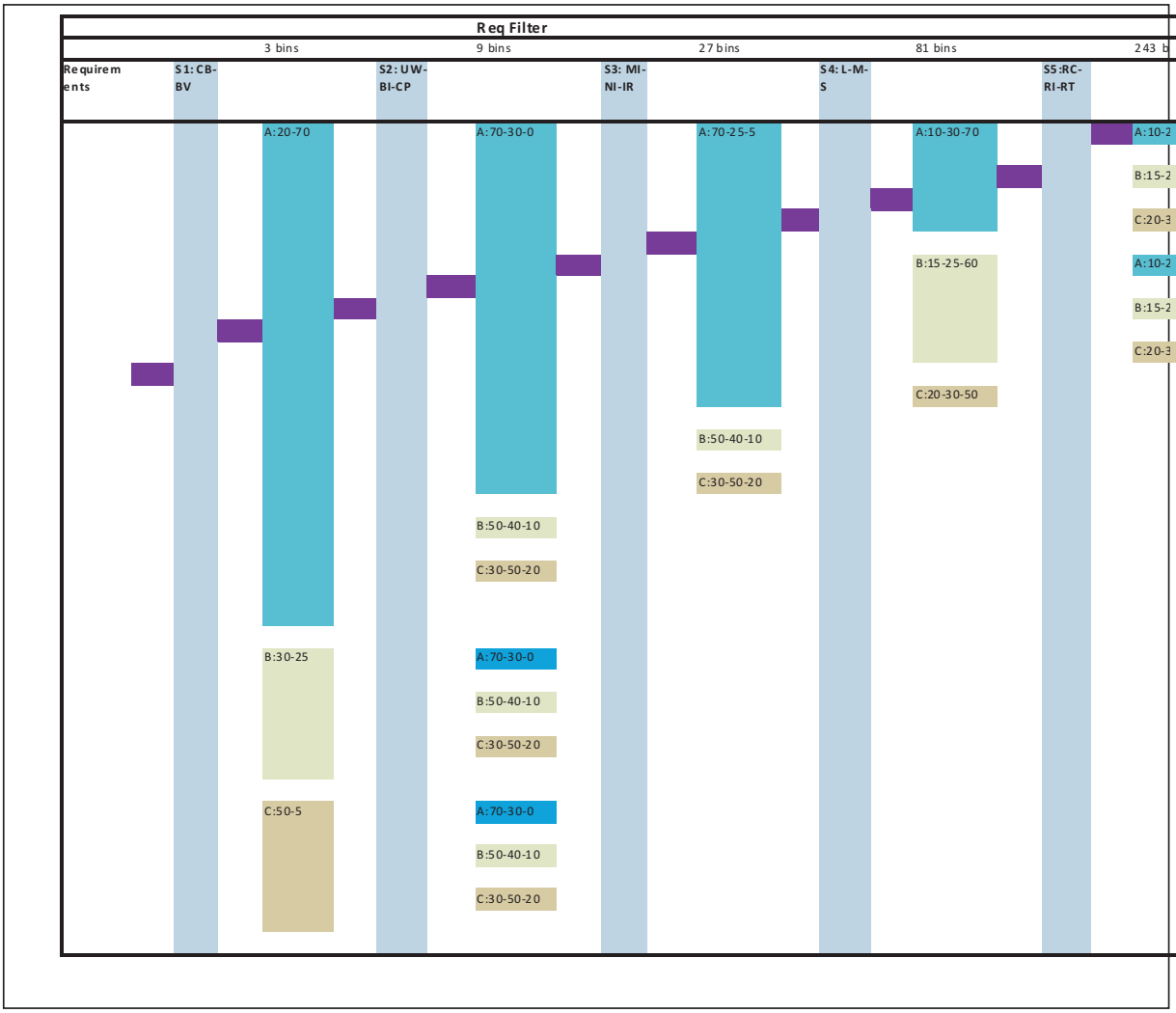

Fig. 2 Classification Template

When all sets are used for classification, we will arrive at 243 bins of requirements. Based on the constraints and release theme, the bins can be selected in the order of preference.

Agile/Iterative/Waterfall –no one process may be suitable for all requirements.

- Follow Agile for requirements emerging through A across Sets
- Follow Iterative for requirements emerging through AB combinations
- Follow Water fall for requirements emerging through ABC combinations.

B. Effective Quality Planning

- Requirements classification into 243 bins enables test planning appropriately.
- Level and importance of testing a requirement can become a function of the bins.·
  Nature of testing can be determined based on the bins.
- A priori information available to test team

C. Flexible Release Planning

- Effects of Adding/removing requirements during the release cycle will be clearly visible.··
  Uncertainties can be accommodated in re-planning easily.
- With the 243 bins available modular release planning becomes feasible.

8. Conclusion

Literature study points to simple to complex methods being researched and gap between research and practice due to difficulties in implementing the research methods. The proposed framework enables simple and effective methodology for Requirements Prioritization for successive releases and leads to better understanding and planning of releases. It helps build traceability and visualize effects of plan changes and helps in informed quality planning.

While the framework is proposed based on the experience across organizations, an empirical study with the product companies is required for validation of the framework. It is planned to Develop a tool based on the framework for requirements classification and dynamic planning through the product development cycle.

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Merger and Acquisitions in Indian Steel Industry: Atypical cases of Tata-Corus and Arcelor-Mittal

Susan Das[1]

One of the important growth drivers of the Indian steel industry, which has seen tremendous growth in its capacity during post-liberalization period, is the trend of mergers and acquisitions, whose significance becomes many-fold because of the recent slowdown that the economy was facing. The companies go for acquisition deals for various purposes like curtailing down competition by acquiring competitor with premium price, easy admittance to overseas market etc. Hence the article gives some basics about mergers and acquisitions before it moves on to discuss two of the most important deals in the Indian steel industry –TATA-CORUS deal and ARCELOR-MITTAL deal, that made it clear to the rest of the steel-makers around the world that India has arrived on the global platform.

Key Words: Merger and Acquisition, Indian Steel Industry, Tata-Corus, Arcelor-Mittal

Introduction

The iron and steel industry has the trait of becoming a leading industry in India's economy as well as in the progress of India's industrialization era. With the recession showing its impacts in almost all the commodities' market, it becomes imperative for us to discuss about one of the important growth drivers of any country i.e steel. From 1997 onwards, mergers and acquisitions became commonplace in the steel industry. The past record shows that before 1997, mergers and acquisitions were very rare in heavy industries such as steel but based on financial performance, over-capacity and the worldwide economy that began showing signs of improvement, the steel industry started consolidating after a prolonged period. And so it becomes crucial for us to discuss about mergers and acquisitions. We will be focusing on two very important acquisitions of the decade i.e the Arcelor-Mittal deal and the Tata-Corus deal.

By definition, we have always viewed commodities as products and services that customers perceive to be exactly the same. But with so many steel-makers competing with each other, it becomes important for one steel-maker to differentiate their steel from others. And here begins the story of the branding of one of the most lackluster commodities called steel. We will focus on the companies like TATA, SAIL etc who have been able to brand steel and what benefits does the branding of steel bring to a steel-making company.

We have seen how with the coming of the recession, all the sectors have been hit with no exception. And so the project will discuss the steel industry's current trends in the face of the economic slowdown and what are the survival strategies in such a scenario. We will also try to find out what does the future hold in store for the global steel markets.

Steel's one of the most unaware-of properties is that it is environmental friendly. Being recyclable steel can be resmelted from scrap and formed into different shapes instead of manufacturing it from the raw materials. Hence steel is truly a commodity for Sustainable development.

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The objective of this paper is to highlight two of the most important deals in the Indian steel industry –TATA-CORUS deal and ARCELOR-MITTAL deal that made it clear to the rest of the steel-makers around the world that India has arrived on the global platform.

2. Indian Steel Industry: An Overview

The Indian iron and steel industry's journey during the post- Independence years has been eventful. At the time of independence, India had only three steel plants- Tata Iron & Steel Company, Indian Iron and Steel Company and Visvesvaraya Iron & Steel and a few electric arc furnace based plants and these operated in a capacity of about 1million ton. But today India has made its way up to the 5th place among the crude steel producers of the world and the largest producer of sponge iron. As per official estimates today the Iron and Steel industry contributes about 2% of the Gross Domestic Product (GDP).

During its journey through the last 60 years the Indian steel industry has responded to the highs and lows of business cycles. Major changes in the industry occurred when during the first three five-year plans the steel industry came under the state control. From the mid 50s to the 70s, the setting up of large integrated steel plant in the public sector by the government at Bhilai, Durgapur, Rourkela and Bokaro created large scale capacity which made India the 10th largest steel producer in the world as crude steel production grew markedly to nearly 15 million tons in the span of a decade from a mere 1 million ton in 1947. But the trend could not be sustained from the late 70's onwards, as the economic slowdown adversely affected the pace of growth of the Indian Steel Industry. However, this phase was reversed in 1991-92, when the country replaced the control regime by liberalization and deregulation in the context of globalization. The provisions of the New Economic Policy initiated in the early 90's impacted the Indian Steel Industry in many ways:

- Large scale capacities were removed from the list of industries reserved for the public sector.
- Licensing requirement for additional capacities was also withdrawn subject to locational restrictions.
- Private sector came to play a prominent role in the overall set up.
- Pricing and distribution control mechanisms were discontinued.
- Iron and Steel industry was included in the high priority list for foreign investment, implying automatic approval for foreign equity participation up to 50% subject to the foreign exchange and other stipulations governing such investments in general. This limit has since been increased to 100%.
- Freight equalization scheme was replaced by a system of freight ceiling.
- Peak import tariff rates were reduced from more than 100% to about 30% average, which has since been reduced to 5%.
- Quantitative import restrictions were largely removed. Export restrictions were withdrawn.

With the opening up of the economy steel makers had better access to global manufacturing techniques. This, along with the pressures of a competitive global market, increased the need to enhance efficiency levels so as to become internationally competitive. This in turn eventually led to emergence of the private sector with the creation of around 9 million tons of steel capacity based on state-of-the-art technology and rapid growth in net production of finished steel: from about 16.1 million tons in 1992-93 to 25.2 million tons in 1996-97 (12% growth per annum).

After 1996-97, with the steady decline in domestic economy's growth rate, Indian steel industry's pace of growth slowed down and in terms of all the performance indicators – capacity creation, production, consumption, exports and price/ profitability – the performance of the industry fell below average. However, from the year 2002, the steel industry made a comeback helped by the growing demand in China and its spectacular economic growth. At the same time, with recoveries took place in major markets, reflected by increase in production, recovery of prices, return of profitability, emergence of new markets, lifting

of trade barriers and finally, rise in steel demand – globally.

The rejuvenated Indian steel industry was clearly in its matured phase with a lot of mega expansion plans coming its way. For example- the decision of POSCO, South Korea to set up their 12 million tons integrated steel plant in Orissa has given the Indian steel industry a feel of what 'globalization' is all about.

Today when again the world stands in recession, all the sectors are trying to come out of it better and bigger. The Indian steel industry is no different. The uncertainties looming over the global business environment and the absence of a clear trend in the business cycle have resulted in uncertainties in demand and no clear price signal from the steel industry. Considering the nature of the industry where supply cannot be immediately controlled to influence the price, there is need for price stability for the steel producers to expand capacities. And this is where **mergers and acquisitions** play an important role by helping a business to consolidate. Moreover, Orissa Sponge Iron and Steel Limited has formed a strategic partnership, a subtle form of merger with Mount Everest Trading & Investment Limited ("MTIL"), an associate company of Monnet Ispat & Energy Limited and part of the Monnet Group ("Monnet Group") promoted by Mr. Sandeep Jajodia. And so discussions on mergers and acquisitions become all the more important in this case.

3. Merger and Acquisitions in Steel Industry

Mergers and Acquisitions form a big part of the corporate finance world. One plus one makes three: well, this equation is the special alchemy of a merger or an acquisition. The key principle behind buying a company is primarily to create shareholder value over and above that of the sum of the two companies involved. When times are tough, companies often go for mergers and acquisitions. Bigger, better and stronger companies often go for buying other companies to create a more competitive, cost efficient company. Companies come together with the hope of getting greater market share or to achieve greater efficiency.

Although the terms Mergers and Acquisitions are uttered under the same breath which almost makes them synonymous to each other, both have slightly different meanings.

When one company takes over another company and then clearly establishes itself as the new owner, the purchase is called an acquisition. If we look from a legal point of view, the target company ceases to exist and the buyer's stock continues to be traded.

Now let us take a look at two of the most talked about mergers: TATA-CORUS followed by ARCELOR-MITTAL.

3.1. Tata-Corus Deal:

In the face of globalization, mergers and acquisitions in the recent times have surfaced as the apex strategic moves of business units' world over. Not only for existence and growth, such strategies have now been the preferred options even for establishing and/or expanding international presence of the onward looking corporate giants. India witnessed the largest ever overseas acquisition in April 2007 when Tata Steels Limited acquired the Anglo Dutch steel producer Corus Group Plc (Corus) for US $12.11 billion. After this acquisition Tata Steel emerged as the fifth largest steel producer in the world.

Corus:

The Corus was created by the merger of British Steel and Dutch steel company, Hoogovens. Corus was Europe's second largest steel producer with a production of 18.2 million tons and revenue of GDP 9.2 billion (in 2005). The product mix consisted of Strip steel products, Long products, Distribution and building system and Aluminum. With the merger of British Steel and Hoogovens there were two assets: the British plant asset which was older and less productive and the Dutch plant asset which was regarded as the crowning jewel by everyone in the industry. They had union issues and were burdened with more than $ 13 billion of pension liabilities. The Corus was making only a profit of $ 1.9 billion from its 18.2 million tons production per year (compared to $ 1.5 billion from 8.7 million tone capacity by Tata).The Corus was having leading

market position in construction and packaging in Europe with leading R&D. It was the 9th largest steel producer in the world. It opened its bid for 100 % stake late in the 2006. Tata (India) & CSN (Companhia Siderurgica Nacional, Brazil) emerged as the most powerful bidders.

CSN (Companhia Siderurgica Nacional):

CSN (Companhia Siderurgica Nacional) was incorporated in the year 1941. The company initially focused on the production of coke, pig iron castings and long products. The company was having three main expansions at the Presidente Vargas Steel works during the 1970's and 1980's. The first completed in the year 1974, increased installed capacity to 1.6 million tons of crude steel. The second completed in 1977, raised capacity to 2.4 million tons of crude steel. The third completed in the year 1989, increased capacity to 4.5 million tons of crude steel. The company was privatized by the Brazilian government by selling 91 % of its share.

The mission of CNS was to increase value for the shareholders, maintain position as one of the world's lowest-cost steel producer, maintain a high EBITDA and strengthen position as a global player. CNS had fully integrated manufacturing facilities. The crude steel capacity was 5.6 million tons. The product mix consisted of Slabs, Hot and Cold rolled Galvanized and Tin mill products. In 2004 CSN sold steel products to customers in Brazil and 61 other countries. In 2002, 65 % of the steel sales were in domestic market and operating revenues were 70 %. In 2003, the same figures were 59 % and 61 % and in 2004 the same figures were 71% and 73 %.

The principal export markets for CSN were North America (44%), Europe (32%) and Asia (11%).

Tata Steel:

Tata steel, India's largest private sector steel company was established in the 1907.The Tata steel which falls under the umbrella of Tata sons has strong pockets and strong financials to support acquisitions. Tata steel was the 55th in production of steel in world. The company had committed itself to attain global scale operations.

Production capacity of Tata steel, at the time of the Tata-Corus deal is given in the table below:

The product mix of Tata steel consist of flat products and long products which are in the lower value chain. The Tata steel had a low cost of production when compared to Corus. The Tata steel was already having its capacity expansion with its indigenous projects to the tune of 28 million tons.

Exhibit 1: Production Capacity of Tata Steel during the Tata-Corus Deal

Existing Capacity		
1	Tata Steel Jamshedpur	5 MT
2	Nat Steel Singapore	2 MT
3	Millennium Steel Thailand	1.7 MT
		8.7 MT
New Addition in India		
4	Tata Steel Jamshedpur	5 MT
5	Tata Steel Jharkhand	12 MT
6	Tata Steel Orissa	6 MT
7	Tata Steel Chhatisgarh	5 MT
		8 MT
8	Acquisition of Corus	19 MT
	Total	**55.7 MT**

Source:http://2.bp.blogspot.com/_sSRhT24M0wQ/SNXjPgws79I/AAAAAAAAAAU/4qCIQRU TAY4/s1600- h/tata1.bmp

Reasons Why Corus Decided to Sell It?

The motive behind the decision of getting offered for sale is;

- Total debt of Corus was 1.6bn GBP
- Corus needed supply of raw material at lower cost
- Though Corus had revenues of $18.06bn, its profit was just $626mn (Tata's revenue was $4.84 bn & profit $ 824mn)
- Corus facilities were relatively old with high cost of production
- Employee cost was 15 % (whereas that of Tata steel was 9%)

Reasons Why Tata Decided to Bid?

The reasons for Tata's decision to bid are;

- Tata was looking to manufacture finished products in the mature markets of Europe.
- It manufactured low value long and flat steel products while Corus was known for producing high value stripped products.
- A diversified product mix would lead to reducing risks while higher-end products would add to bottom line.
- Corus held a number of patents and R & D facility.
- Cost of acquisition was lower than setting up a green field plant and marketing and distribution channels
- Tata is known for efficient handling of labor and it aimed at reducing employee cost and improving productivity at Corus
- It had already expanded its capacities in India.
- With the Corus deal in its bag, TATA would move from 55th in world to 5th in production of steel globally.

Tata Steel Vs CSN: The Bidding War:

There was a heavy speculation surrounding Tata Steel's proposed takeover of Corus ever since Ratan Tata had met Leng in Dubai, in July 2006. deal at US$ 7.6 billion. Corus responded positively to the offer on October 20, 2006.Agreeing to the takeover, Leng said, "This combination with Tata, for Corus shareholders and employees alike, represents the right partner at the right time at the right price and on the right terms." In the first week of November 2006, there were reports in media that Tata was joining hands with Corus to acquire the Brazilian steel giant CSN which was itself keen on acquiring Corus. On November 17, 2006, CSN formally entered the foray for acquiring Corus with a bid of 475 pence per share. In the light of CSN's offer, Corus announced that it would defer its extraordinary meeting of shareholders to December 20, 2006 from December 04, 2006, in order to allow counter offers from Tata Steel and CSN.

Financing the Acquisition

By the first week of April 2007, the final draft of the financing structure of the acquisition was worked out and was presented to the Corus' Pension Trusties and the Works Council by the senior management of Tata Steel. The enterprise value of Corus including debt and other costs was estimated at US$ 13.7 billion.

The Integration Efforts

Industry experts felt that Tata Steel should adopt a 'light handed integration' approach, which meant that Ratan Tata should bring in some changes in Corus but not attempt a complete overhaul of Corus' systems. N.Venkiteswaran, Professor, Indian Institute of Management, Ahmedabad said, “If the target company is managed well, there is no need for a heavy-handed integration. It makes sense for the Tatas to allow the existing management to continue as before.”

The Synergies

Most experts were of the opinion that the acquisition did make strategic sense for Tata Steel. After successfully acquiring Corus, Tata Steel became the fifth largest producer of steel in the world, up from fifty-fifth position. There were many likely synergies between Tata Steel, the lowest-cost producer of steel in the world, and Corus, a large player with a significant presence

in value-added steel segment and a strong distribution network in Europe. Among the benefits to Tata Steel was the fact that it would be able to supply semi-finished steel to Corus for finishing at its plants, which were located closer to the high-value markets.

The Pitfalls

Though the potential benefits of the Corus deal were widely appreciated, some analysts had doubts about the outcome and effects on Tata Steel's performance. They pointed out that Corus' EBITDA (earnings before interest, tax, depreciation and amortization) at 8 percent was much lower than that of Tata Steel which was at 30 percent in the financial year 2006-07.

The Road Ahead

Before the acquisition, the major market for Tata Steel was India. The Indian market accounted for sixty nine percent of the company's total sales. Almost half of Corus' production of steel was sold in Europe (excluding UK). The UK consumed twenty nine percent of its production. After the acquisition, the European market (including UK) consumed about 59 percent of the merged entity's total production.

3.2. Arcelor-Mittal Deal:

cooperation and economic revival, with operations that spanned Luxembourg, Belgium, France and Spain and a fast growing conglomerate that was the brain-child of the Indian-born Lakshmi Mittal who built for himself turning around sick steel plants in rapidly expanding markets from Trinidad to Kazakhstan.
The deal valued at $33.1 billion made it clear that shareholders activism has entered into the once staid and sleepy boardrooms of Europe. The agreement to pair with Mittal caps a wrenching turnaround for Arcelor's management, which once dismissed Mittal as a "company of Indians" but was forced to backtrack after shareholders threatened to revolt.
Politicians in Europe who once criticized Mittal remained mum and the merger brought hope that the protectionist barriers against such deals may be eroding in Europe.Mittal paid €40.37 per share for Arcelor, which was almost doublewhat the company was trading at, when Mittal first made an offer in January. The new company was re-christened as **Arcelor-Mittal** and it got headquartered in Luxembourg. The chairman of Arcelor-Mittal is Mr. Mittal himself at present, after the retirement of Joseph Kinsch, who was the chairman of Arcelor even before the merger had taken place.

The deal brought along with it not just a global leadership in terms of tons but also in terms of value.
Getting to this point has involved a bruising fight for both sides. Mittal first made an unexpected €18.6 billion offer for Arcelor and was swiftly and harshly rebuked by Arcelor management and a chorus of European politicians who criticized everything from his grammar to his Indian origins to the quality of his company's steel. Arcelor's bare-knuckled defense strategy included refusing to meet with Mittal until a string of demands were met, and simultaneously orchestrating a €13 billion deal with Severstal of Russia to keep him away.

How the story of Arcelor-Mittal unfolded? - A summary.

- In January 2006, Mittal made a surprise bid of €18.6 billion for Arcelor.
- Arcelor management announced large dividend
- Arcelor came out with a very positive profit report, which was later found to be inflated.
- Arcelor made a rosy forecast for the future, in terms of performance
- Arcelor management and European politicians did not refrain from criticizing Mittal
- Arcelor placed, in front of Mittal, a string of demands and refused to meet Mittal until and unless the same were fulfilled
- Arcelor held talks with the Luxembourg government regarding writing a takeover law that would shut Mittal out.
- The unions of Arcelor also had their own fears of losing jobs and a reduction intheir social status
- The managers of Arcelor feared that Mittal will shift towards short-term goals from long-term goals, once it acquires

Arcelor.

- In an attempt to bring anti-trust problems for Mittal, Arcelor committed to buy North American Steel Company.
- The agreement contained a clause that made it difficult to go through with the sale.
- Arcelor made €13 billion deal with Severstal of Russia, including break-up fee of €140 million
- Arcelor, Mittal, and Severstal engaged in heavy advertising, meetings with investors and politicians
- Arcelor arranged a meeting with shareholders where Severstal would be approved, unless about 50% plus one of the shareholders voted the deal the down. This was an unusually high percentage. The meeting was stalled advertently till the Severstal deal got almost finalized
- Mittal raised offer to €26.5 billion, and agreed to cede some management control and family voting rights. This was nearly double the price per Arcelor share, at which Arcelor was trading at, prior to Mittal's bid in January.
- The Severstal deal was highly disapproved by the institutional shareholders and hedge funds, at the same time supporting the Mittal deal. Arcelor management feared that the shareholders would go against the buyback of shares which was a necessity to go through with the Severstal deal. Shareholders show unrest and threaten to oust Arcelor management and sue Arcelor board.
- The Arcelor board was sued by 6% of the Arcelor shareholders for selling at a very low price. And Arcelor found itself unlikely to succeed, given a very high premium on Arcelor shares, relative to pre-takeover battle price.
- Finally on June 25, 2007, Arcelor agreed to merge with Mittal steel, thereby putting an end to the five months battlebetween the two. The new company was then on known as **Arcelor-Mittal.**

The Tata-Corus and Arcelor-Mittal deals were two of the most important deals in the history of Indian steel industry. They put India on a global platform.

Active mergers and acquisitions (M&As) among players indicate the consolidation dynamics within the steel industry globally.

Consolidation among top steel companies would continue since industry players are engaged in an unfettered rush for scale. By doing so, the steelmakers are pursuing two main objectives: by purchasing additional production capacity they aim to both improve their cost structure and increase their market clout. The merger of the world's two biggest steelmakers Mittal Steel (Netherlands) and Arcelor (Luxembourg) created an industry giant whose output is nearly four times as much as that of the next biggest player (Nippon Steel) and eight times as much as SAIL's. If it continues like this, 35% of steel production will remain confined in the top 10 companies in the coming years. Consolidation among industry players would be driven by strategic fits between companies, rather than financially centered deals. A company can be a good strategic fit for merger if it has, among other things, attractive access to raw materials, production capabilities, proven success in complementary markets, new technologies or patented products and a successful global supply network.

In India the three biggest steelmakers, whose combined output is almost 20 million tons, have a market share of 51%. Their domestic competitors are numerous medium sized and small companies. One of these, for example, is Ispat with an output of 2 million tons. More mergers can be expected between companies of this size as these firms need to improve their position with regard to the powerful suppliers of raw materials. As different major global steel producers like Arcelor-Mittal, Posco and others are setting up plants in India, competition in the future will increase. In that case several mid-size domestic companies may go for mergers. But if we see from the current position of the industry we can

say that in future Indian steel industry will remain oligopoly or can become a competitive one.

4. Impact of Mergers

Mergers have a universal impact, practically everyone from society, shareholders, employees, and directors to financial institutions. Society can benefit from the merger if it results in producing goods at low costs due to economies of scale or improved management. The acquiring shareholders usually get poor returns and therefore very small average gains. However, target shareholders usually gain from mergers, as the acquirers have to pay a substantial premium over the pre-bid share price to convince target shareholders to sell. Employees may gain or lose from a merger activity. Mergers generate significant gains to the target firm's stockholders and buyers generally break even, there are positive benefits from mergers. The yardstick to measure a successful merger is the profit level. Profitability is the only overall significant identifier**.**

Value-Creation by Arcelor-Mittal
Following points hint towards the value creation during post acquisition period.

- There was strong financial performance in the second half of 2006
- Full-year Earnings before interest, taxes, depreciation, and amortization (EBITDA) rose 2.1% to $15.27 billion from $14.96 billion in 2005
- Combined sales slightly decreased in 2006 but had a quantum jump in 2007
- Sales figure for Mittal Steel was more than doubled after the merger
- Net income of the Company has risen from $3.36 billion to $6.10 billion in 2006 and $11.8 billion in 2007
- Venture into new businesses and markets like Luxembourg, Senegal, Libaria
- Enlarged brand portfolio

Value-Creation by Tata-Corus:

Following points hint towards the value creation during post acquisition period.

- Full-year Profit before Depreciation, Interest and Taxes (PBDIT) rose 21.3% to Rs. 8830.95 cr. from Rs. 7275.87 cr. In 2008
- Combined sales increased 12.61% to Rs. 19654.41 cr.
- Profit of the Company has risen from Rs. 3506 cr. To Rs. 4222 cr.
- Economies of scale
- Forward integration for Tata Steel
- Increased presence in global markets

Comparison between Tata-Corus and Arcelor-Mittal:

- In the Arcelor-Mittal deal, the Enterprise Value (EV)/EBITDA was 6.2 times while it was 9 times in case of Tata-Corus.
- In terms of EV/tonne too, Tata Steel's price (at $700 – 710 per tonne) was higher than what Arcelor commanded at $586 per tonne.
- In case of Arcelor-Mittal, the deal involved a share swap along with cash while Tata Steel had to shell out hard cash for Corus.

5. Conclusion

The liberalization of industrial policy and other initiatives taken by the Government have given a definite impetus for entry, participation and growth of the private sector in the steel industry. While the existing units are being modernized/expanded, a large number of new/Greenfield steel plants have also come up in different parts of the country based on modern, cost effective, state-of-the-art technologies. Indian steel players, now, concentrate on the global market as they know the trend of world market of steel. The rapid progress of the Indian automobile, engineering and construction industries means that the country will need more and more high-quality steel. Access to Corus technology will, in course of time, allows Tata Steel to move up in the value chain and in that case it will be win-win situation for TATA.

Mergers and acquisitions play important role in the Indian steel industry and they have helped put the industry on the global platform. As the world

today faces a recessionary phase, the steel industry should take this as an opportunity to improve operational efficiency and effectiveness so as to come better off after this phase is over. Mergers and acquisitions are an ideal way to make headway in production and especially in this recessionary phase they will help cut cost.

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Rationale of Need and Gap Analyses in the Context of Corporate Social Responsibility Activities Initiated by Coal Mining Industry

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As per the Mines and Minerals (Development & Regulation) Bill 2011, Mining operations to be conducted in accordance with Mining plan which should include scheme for Corporate social responsibility (CSR) and Sustainable development, comprising of annual expenditure by the lessee on socio – economic activities in and around the mine area for the benefit of the host population in the panchayats adjoining the lease area and for enabling and facilitating self employment opportunities, for such population and the lease holder shall, at the end of each financial year, publish in his annual report and display on the website, the activities undertaken during the year and the expenditure incurred there on. Owing to legal obligations, coal mining industry is persistently implementing varieties of CSR initiatives. However, if the CSR initiatives are not exactly in line with the necessities of the projected beneficiaries, there may arise a gap between the real benefits and the intended benefits felt by the beneficiaries. Keeping this in mind, this article tries to put forth the justification of Need analysis in order to avoid mismatch of CSR initiatives needed by the projected beneficiaries and initiatives provided by the company and Gap Analysis pertaining to real benefits and the intended benefits felt by the beneficiaries.

Key Words: CSR initiatives, Need Analysis, Gap Analysis, Coal Mining Industry

Introduction:

Although the core objective of any business or corporate is to maximize profit and maintain it on a sustainable basis, as an artificial citizen of the country it belongs, every business house has certain sets of responsibilities towards the society not just for obligatory ground but for fulfilment of its core objective as well. As a gesture of these sets of responsibilities, the concept of Corporate Social Responsibility (CSR) has gained momentum now a days' and has been the talk of the business world in recent times. It refers to conducting business with transparent business practices that are based on ethical values, compliance with legal requirements, respect for people and communities, and concern for environment. Thus beyond making profits, companies are responsible for the totality of their impact on 'People and Planet'. People constitute shareholders, investors, employees, business partners, clients, customers, suppliers, vendors, civil society groups, government, non-government organizations, and the community. Planet covers concern for environment.

In short, Corporate social responsibility is a company's commitment to its stakeholders to conduct business in an economically, socially, and environmentally sustainable manner that is transparent and ethical. Thus corporate social responsibility is all about "Doing well for society and environment by doing well out of profits through social innovation for building everlasting social connectivity

The role of Corporate Social Responsibility (CSR) in specially coal mining industry is vital because of the fact that the public perception about the organizational culture of coal mines is required to be

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changed for their acceptance as a good corporate citizen by adopting best business practices which are eco-friendly, transparent and ethical. The public perception of coal mining industry can be improved with innovative approaches in discharging corporate social responsibility for improving standard of life of under developed and marginalised communities by providing various facilities for community welfare, infrastructure development, water supply, education, health, environment, skill development, sports and culture etc. As the era is passing through evolution of transparency, Reporting and Disclosure's are virtually obligatory.

2. Legal Provision of CSR Activities:

- The Salient Features of Company's Bill, 2013 On CSR (Sec 135):
  - Every company having net worth of rupees five hundred crore or more, or turnover of rupees one thousand crore or more, or a net profit of five crore or more during any financial year shall constitute a CSR committee of the Board consisting of three or more directors, out of which at least one director shall be an independent director.
  - The Board's report under subsection (3) of section 134 shall disclose the composition of CSR committee.
  - The CSR committee shall:
    - Formulate and recommend to the Board, a CSR policy which shall indicate the activities to be undertaken by the company as specified in schedule VII.
    - Recommend the amount of expenditure to be incurred on the activities referred in clause (i),and
    - Monitor the CSR policy of the company from time to time.
  - The Board of every company referred to in subsection (1) shall:
    - After taking into account the recommendations made by CSR committee approve the CSR policy for the company and disclose contents of such policy in its report and also place it on the company's website, and
      - Ensure that the activities as are included in CSR policy of the company are undertaken by the company.
  - Board of every company shall ensure that the company spends, in every financial year, at least 2% of the average of net profits of the company made during the three immediately preceding financial years, in pursuance of its CSR policy, provided that the company will give preference to the local area and areas around it where it operates, for spending the amount earmarked for CSR activities, provided further that if the company fails to spend such amount, the Board shall, in its annual report specify the reasons for not spending the amount.

- Mines and Minerals (Development & Regulation) Bill, 2011(Sec26 & Sec43):
  - SEC26: Mining operations to be conducted in accordance with Mining plan which should include scheme for Corporate social responsibility and Sustainable development, comprising of annual expenditure by the lessee on socio – economic activities in and around the mine area for the benefit of the host population in the panchayats adjoining the lease area and for enabling and facilitating self employment opportunities, for such population and the lease holder shall, at the end of each financial year, publish in his annual report and display on the website, the activities undertaken during the year and the expenditure incurred there on.

    SEC 43: The holder of Mining lease shall annually pay to the District Mineral

Foundation, an amount equal to 26% of the profit to be called as profit sharing percentage (after deduction of tax paid) of the immediately preceding financial year from mining related operations in · respect of the lease; shall allot free shares equal to 26%, through promoter's quota in case the holder of lease is a company.

➢ Guidelines on CSR and Sustainability for Central Public Sector Enterprises:

CSR voluntary guidelines were issued in 2009 by Ministry of corporate affairs and for central public sector enterprises, guide lines were issued already on CSR in April 2010 by Department of Public enterprises, under Ministry of Heavy Industries & Public enterprises, GOI. And also guide lines on Sustainable Development were issued by DPE in September 2011.In supersession to all previous guidelines now revised guide lines on CSR and Sustainability for Central Public sector enterprises have been issued with effect from 1st April 2013. These guide lines will stand modified by the provisions of the new Companies Act and updated SEBI guide lines as and when these are in place and made enforceable. The salient features of these guidelines are as under:

1. Public sector enterprises are required to have a CSR and Sustainability policy approved by their respective Boards of Directors.
2. CPSE's should integrate and align their CSR and Sustainability policies and activities with their business goals, plans and strategies.
3. CPSE's are expected to adhere to the global standards in this regard and keep in mind the UN Global Compact and the UN Millennium Development Goals.
4. Mandatory compliance with legal requirements/rules/regulations/laws in letter and spirit will be covered under CSR and Sustainability activity.
5. The philosophy and spirit of CSR and sustainability should get embedded in the core values of all CPSE's, be imbibed by the employees at all levels and it should permeate into all the activities, processes, operations and transactions of the enterprise.
6. The Board level CSR Committee and the designated nodal officer's team of officers together will constitute the two-tier organizational structure to steer the CSR & Sustainability agenda of the company.
7. The companies should disclose their CSR & Sustainability initiatives on their official websites. A brief summary of CSR & Sustainability activities should also be included in their Annual Report.
8. CPSE's would take up the following initiatives for displaying their social responsibility :
   - Promote organizational integrity and ethical business practices through transparency in disclosure and reporting procedures,
   - Leverage green technologies, processes and standards to produce goods and services that contribute to social and environment sustainability,
   - Contribute to inclusive growth and equitable development in society through capacity building measures, empowerment of the marginalised and underprivileged sections/communities,
   - Promote welfare of employees and labour (casual or contractual), by addressing their concerns of safety, security, professional enrichment and healthy working conditions, whether mandated or otherwise. However, expenditure on mandated activities cannot qualify for CSR's financial

Table 2.1 Budgetary allocation for CSR by CPSE

Profit After Tax (PAT) of CPSE in the previous year	Range of budgetary allocation for CSR & Sustainability activities(as % of PAT in previous year)
(i) Less than Rs 100 crore	3% - 5%
(ii) Rs 100 crore to 500 crore	2% - 3%
(iii) Rs 500 and above	1% - 2%

components.

9. Every year ,each CPSE shall with the approval of its Board of Directors make a budgetary allocation for CSR and Sustainability activities/projects and the budgetary allocation will be based on the profitability of the company in the previous year as shown in Table 2.1.
   However, sick or loss making companies or those having a negative Net worth are not mandated to earmark specific funds for CSR & Sustainability activities.
10. Sustainability reporting and disclosure of all CSR and Sustainability activities undertaken by a CPSE is mandatory.

3. Major CSR Activities under CSR in Coal India Limited:

In coal mining industry, there is lot of positive impact due to CSR initiatives, because mining of coal has profound impact on the people living in and around the areas where mines are established. The obvious impacts of the introduction of any production activity in such areas are; change in the traditional lifestyle of the original inhabitants and indigenous communities and also change in the socio-economic profile of the area. Coal companies were already having a culture in involving community development activities to maintain harmonic relationship with neighbouring communities. Now with mandatory CSR policy, Coal India and its subsidiaries are actively indulged in taking care of society, environment by not only taking care of its internal stakeholders(specially employees) ,but also extending helping hand to adjacent communities through various CSR initiatives concerning community welfare, education, health, drinking water, infrastructure, skill development, environment, empowerment of women, sports & culture, etc. The details of CSR spending by Coal India Ltd and SECL during 2009 -2012 are given below:

1) Education: Financial assistance to schools, scholarships, adult literacy, cycles to needy girl students.
2) Water Supply Including Drinking Water:Installation and repair of hand pumps, dug wells, bore wells, laying pipelines.
3) Health Care: Organizing health awareness camps on AIDS, TB, Leprosy, diet, nutrition, family planning, facilities of mobile medical vans etc.
4) Social Empowerment: Training and Development in different fields such as welding, fabrication, tailoring, farming etc for weaker section of the community for self employment.
5) Sports And Culture: Promotion of sports of different events in coalfields including nearby villages.
6) Infrastructure Support: Construction of Community buildings, roads, culverts, repairing and supply of furniture for educational institutions.
7) Generation of Employment: By setting up cooperative societies, construction of shopping complex etc.
8) Relief of Victims against natural calamities.
9) Adoption of Villages: For carrying out activities like infrastructure development such as providing solar light, pavan chakki, construction of roads etc.
10) Financial Assistance To Ngo's: For undertaking different activities towards uplifting of the under privileged, backward,

CSR Spending in Coal India Ltd:

S. No.	Company	2009-10		2010-11		2011-12	
		Budget (Rs cr)	Actual (Rs cr)	Budget (Rs cr)	Actual (Rs cr)	Budget (Rs cr)	Actual (Rs cr)
1	Coal India Ltd	43.81	40.14	262.28	152.33	553.33	77.00
2	South Eastern Coalfields Ltd	9.49	8.78	20.33	11.34	44.47	18.37

physically and mentally challenged children.

11) Financial Support: For organizing medical camps, free consultation, distribution of medicines awareness for under privileged and slum dwellers in association with local community.

12). Various Activities Towards Protection of Environment: The impact on the environment due to extraction of coal is being monitored constantly by the CIL subsidiaries and adequate measures for control of air, water, and noise pollution, land degradation, deforestation etc are being undertaken in accordance with the provisions of all statutory norms, acts and rules on a regular basis by way of the following environment protection activities:

PLANTATION – Massive plantation is being carried out in command areas by state forest department every year to mitigate all sorts of pollution. Further the following measures are being undertaken to mitigate environment pollutions:

- Air pollution control measures.
- Water pollution control measures.
- Land reclamation/Restoration and General cleanness.
- Noise pollution control measures.
- Environment Management Plan monitoring.
- Executing statutory requirements of state pollution control boards.

4. Rationale of Need and Gap Analysis:

Too often the community views the business organization's aims as selfish gain rather than advancement of the general welfare. This impression can be removed only if corporations are fully alive to their social responsibilities and helps our society to function in harmony. There is every possibility of perceiving the concept of CSR activities in a wrong way owing to traditional and rigid mind set of the projected beneficiaries and making propaganda against the efforts of the business houses in this regard by the vested interest-group people and community. At the same time, because of some additional expenses of the business houses for CSR activities and being unaware of the exact benefits accrued to both the parties, very often the business houses do CSR activities just for their duty-sake keeping their whole-hearted involvement aside from the project. By doing so, not only they cheat the society but also they get cheated by their own deeds. In fact, they do not put their sincere effort in implementing CSR initiatives with regard to the actual requirement of target group of community, and then such attempts would go in vain. Had the projected benefits been assessed properly, probably every business house would have preferred to adopt the CSR activities as strategy for their growth and

development. Thus there is a gap between what potential impacts the CSR activities bring forth and what the stakeholders perceive on it. There should be proper assessment of the impact of CSR activities on the society as a whole, which requires Impact Assessment Study and that in turn helps strengthening the social bonding between coal producing company and adjacent communities or villages.

- Had the projected benefits been assessed properly, probably every business house would have preferred to adopt the CSR activities as strategy for their growth and development. (Urge for Impact Analysis)
- Thus there is a gap between what actual positive impacts the CSR activities bring forth and what the hosts (coal companies) perceive on it. (Urge for Gap Analysis)
- Sometimes there may be mismatch of CSR initiatives needed by the projected beneficiaries and initiatives floated by the business houses. (Urge for Need Analysis).

For impact analysis, on the basis of secondary data we can easily find out changes in two time elements – before the launch of CSR initiatives and after a period of time (about one year to five years) since the launch of CSR initiatives - pertaining to;

- Percentage of people living BPL
- Incidence and depth of diseases
- Ambience of the village
- Enrolment ratio in primary, secondary and higher level of education
- Infant mortality rate
- Use of modern gadgets by the villagers
- The Primary data collected through in-depth interview, questionnaire/schedule and observation will be made use of to know the feel good ratio of the villagers in the same two time elements.

Pertaining to Gap Analysis, while the data to be collected for Impact analysis will yield the actual positive impacts of any CSR initiative, the data related to the host's perception on it could be collected through direct personal interview method.

As Need Analysis is to be done before launching any CSR activity, for this,

- The secondary data will be used
  - to know the facilities the villagers are already accessing, and
  - the necessary facilities they are deprived of.
- The primary data will be collected with the help of questionnaire/schedule from the projected beneficiary to know their priority towards the set of facilities they are deprived of.

By making use of the following quantitative techniques the rationale of Need, Impact and Gap Analyses can be established.

(a) For Need Assessment, Cluster Analysis will be done so as to identify groups or segments that are more like each other than they are like members of other groups or segments. It will help the Companies to find out the cluster carrying the needy respondents and their prioritized CSR initiatives are to be taken up first

(b) For Impact Assessment, the technique of correlation and Regression will be in use to know whether there is any such association between the CSR initiatives and the parameters identified to know the changes.

(c) For Gap Analysis, the technique of Dispersion will be in use so that both the parties involved will come to know whether the efforts are getting channelized properly and, in fact, it will necessitate the future courses of action on picking up CSR initiatives. .

5. Conclusion:

CSR in Coal India means it is not just spending; it is all about developing social bond between Coal Company and local communities. In order to create an effective social connectivity with society, Coal companies are taking up long

gestation and high impact projects based on need assessment through a transparent base line data survey. However, for valuable outcome with optimal societal welfare, there is a very need of analysing the aspects as mentioned above. On the basis of Need, Impact and Gap analyses, the stakeholders involved in CSR initiatives will come to know the real benefits of such activities and hence will be aware of their rights and responsibilities. Not only the beneficiaries will be keen to take the advantages of the CSR activities provided by Coal Company but also the management who feel these activities burdensome and tasking may get motivated to adopt such activities as a strategy for their growth. In fact, this study will help understanding the role of CSR in strengthening the social bond.

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Role of Senior Management in Ethical Related Actions

K. S. Naik[1]

The most critical issue in ethics management on one hand is the continual conflict between the economic performance of the firm, measured by revenues, costs & profits, stockholders' interest and on the other hand the social performance of the firm, which is difficult to measure but represented by obligations to employees, customers, creditors, suppliers, distributors and members of the public in general. The paper presents the role of the Senior Management in inculcating the concepts of 'Ethical Related Actions' and the importance of such concepts in the ethical management of organizations.

Keywords: Ethical Related Actions (ERAs), Values, Cultures

Introduction

The chairman of the Board of Deloitte & Touché, USA LLP said this: "Corporate leaders have a duty to build and foster a value-based culture that thrives on high ethical standards and makes corporate and social responsibility a top priority. Only by instilling these values in our respective organizations will we be able to bestow a promising future to the next generation".

The senior management has to play a major role in instilling such ethical standards & values in any organization. This paper will indicate some of the ethical roles to be played by the senior management. These are not exclusive roles, but are of routine nature and have to be exercised, followed and course corrections carried out to make the organization a success.

Review of Literature

Human beings in to-day's world are bothered about perpetual conflicts, challenges and chaos in the society. Environmental problems are adding up to the sad scenes. Such strife is due to I mbalances in mind and heart and not due to the marvelous development in technology and its application. Opportunities exist in the society to reduce such dilemmas which can be achieved by coupling development in all spheres along with humanism.

Lala (2006) says that an ethical leadership consists of "Communication, compassion, competence, coverage, decision making, humility, integrity, management, purpose, stamina, teamwork, training and vision". He stresses the importance of 'compassion' in ethical leadership and quotes Churchill who calls compassion as 'deathless glory'.

Kaul (2007) quotes from 'Dhammapada', "It was not outward appearance of modesty or purity that made one noble but the purity of one's thoughts, purged of all defilements and established in the eternal Dhamma that made one noble"

The Old Testament says, "He who walks with the integrity walks securely"

Intellectuals of the recent past have this to say on ethical values:

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- Rabindranath Tagore says, “What is valuable to a man when he is bad becomes worse than valueless when he is good”.
- Vivekananda says, “Great error of all ethical systems is failure to teach means to refrain from doing evil”.
- Mahatma Gandhi says, “In the path of morality, there is no such thing as reward for moral behavior”.
- Sri Aurobindo says, “The kernel of true ethical being remains always the same – will, character, self-discipline, self mastery – these are almost the first conditions for human self perfection”.

In the 'Perspectives in Business Ethics' Hartman (2003) brings out various Ethical Theories and Approaches and indicates applications of Traditional Theories to Modern Business Making. She suggests that in corporate & business levels, the moral decision making processes can be regulated through the publication of code of conduct, code of ethics and corporate values of the company.

In the book 'Swami Vivekananda on Universal Ethics and Moral Conduct' by Swami Ranganathananda, the author says that ethics & morality are the “Real Basis of Life”. He adds: “All knowledge is within us. All perfection is there already in the soul but this perfection has been covered by nature; layer after layer of nature is covering this purity of the soul. We simply take the veil off; and the soul manifests itself in its pristine purity, its natural, innate freedom”.

Shekhar (2002) in his book, 'Ethical Choices in Business' states that ethics could have a descriptive aspect (D), a normative aspect (N) and an analytical aspect (A) which is called DNA of ethics. He puts all of them in six bundles of ethical lessons from history to improve our integrated understanding.

Chakraborty (2005) in his book, 'Ethics in Management – Vedantic Perspectives' leads us to a different direction which he terms as 'Moral Business Ashram'. The word “Ashram stands for a serene and calm, sacred and simple locale in a wooded surrounding where individuals can practice self discipline and austerity for the consummation of a vow”. He says that, “it reflects the ingrained Indian ethos most of our managers secretly nurse”. Probably, “the ultimate idea is that an individual in Indian culture is the holyman”.

Sharma (2007) in his book, 'New Mantras in Corporate Corridors' says the foundation of Indian corporate model is based on Indian Ethics and the Spirit of Development. He says, that “in sharp contrast to the western model of 'Protestant Ethics' and the 'Spirit of Capitalism', the Indian ethics model with its emphasis on holistic development provides us a new model for future development of human society”, in which 'spirit of capital' or the 'artha' dimension of life is not negated but is driven by 'dharma or the ethics'. He further says that the “dharma driven 'artha' or the 'spirituality guided materialism' represents a balanced approach to development”. He adds, that, “Western ethos are rooted in individualism or the primary of self interest; eastern ethos favour 'lokasangraha' or the primary of collective interest and altruism; what required is a balance between the two”

Under the auspices of Global Ethics Foundation, Tubingen University, Germany, the former Prime Minister of England, Tony Blair, on 30-06-2000, gave a clarion call as “community within a nation, interfaith understanding, and community as an international idea”. He emphasized on “free trade is the key to prosperity for poor nations, debt relief and solidarity with poor nations, fight against crime and drug abuse on an inter nation basis, non destruction of environment, non-proliferation of nuclear threats and finally a great stress on revolution of information and biotechnology”.

Austin (1961), in his article 'Code of Conduct for Executives' suggests a simple code of ethics for executives. He says; “Business Ethics, Corporate Morality, Corporate Ethics and similar phrases mean nothing. The public's opinion of the ethics of business and of the corporation is based entirely on the actions of individual business managers”. He adds that code of conduct and other statutes only create an attitude

of suspicion. If business management is to be a profession, it must meet the basic requirements of the professions. One of these requirements is an internally developed code of conduct that can be and is professed as the code by which the members of the profession will live. In his opinion, the code should call on the executive to assume the duty of: a) Placing the interests of this company before his private interests; b) Placing the interests of society before his own and his company's interests; and c) Revealing the truth in all cases of involvement.

Objectives of the Study

- To establish the role of the Senior Management in ethical related actions of a company.
- To find out as to who has the major role in ethical related actions of a company. The Senior Management? The Middle Management? Or, The staff and employees?
- To establish graphical relationships between the roles Senior Management, Middle Management and staff & Actions.

Research Methodology

Five MNCs and five similarly placed Indian engineering companies were chosen. All the ten are Bangalore based. The chosen five MNCs comprise one from each country viz., Japan, USA, Germany, Sweden and Switzerland.
The questionnaire prepared for different functional areas like Senior Management, Middle Management and Staff & Employees was different even though a few commonalities existed. From each company five numbers of senior managers, ten numbers of middle level managers and fifteen numbers of staff and employees were chosen. The feedback data obtained is indicated under the heading 'Research Findings'.

Ethical Landscapes

The National Business Ethics Survey, 2005, made by Ethics Resource Centre, USA, suggests eighteen critical elements of an organizational culture. These are the Ethical Related Actions pertaining to different levels of management and workers.
They are as follows:

Management Levels	Ethical Related Actions
Top Management	• Communicates ethics as a priority • Sets a good example of ethical conduct • Keeps promises and commitments • Provides information about what is going on • Employees perceive that top managers are held accountable
Middle Management	• Communicates ethics as a priority • Sets a good example of ethical conduct • Keeps promises and commitments • Employees perceive that middle managers are held accountable for ethics violations
Supervisors	• Communicates ethics as a priority • Sets a good example of ethical conduct • Keeps promises and commitments • Support employees in following organizational standards
Co-workers	• Consider ethics while making decisions • Sets a good example of ethical conduct • Talks about importance of ethics • Support employees in following organizational standards • Employees perceive that non-managers are held accountable for ethics violations.

The Ethics & Workplace survey made by Deloitte & Touché, USA 2007 throws up interesting data on the ethical scenarios in US workplaces. The survey shows a strong relationship between ethics and work-life balance. The employees at all levels are more likely to behave ethically at work when they have a good work-life balance. The statistics indicates the need and importance of providing employees with the means to attain a healthy work-life balance. Some of the salient features from the survey are given below:

The Ethics Resource Centre's (USA) National Business Ethics Survey 2009 highlights the following important findings:

- Misconduct at work is down from 57% in 2007 to 49% in 2009.
- Whistle blowing is up; more employees said they had reported misconduct when they observed. It was 58% in 2007 and 63% in 2009.
- Ethical cultures are stronger. The strength of ethical culture increased from 53% in 2007 to 62% in 2009.

Balancing of Quality of work Life:	% in agreement
• I think workers are more likely to behave ethically at work when they have good work life balance.	91%
• My employer is very supportive of any personal needs outside the workplace.	74%
• My job does not offer me sufficient opportunity to meet my work life balance needs.	30%
• I wish I had more time outside of work to spend with my friends and family.	60%
• I am very dissatisfied with my current work life balance.	26%
What are the top factors promoting an ethical workplace environment?	
• Behaviour of management	42%
• Behaviour of direct supervisor	30%
• Positive reinforcement of ethical behaviour	30%
• Compensations	29%
• Behaviour of peers	23%
Why do people make unethical decisions in the workplace?	
• Lack of personal integrity	80%
• Job dissatisfaction	60%
• Financial rewards	44%
• Pressure to meet goals	41%
• Ignorance of code of conduct	39%
Can a company's values promote an ethical workplace environment?	
• My company's values promote an ethical environment.	87%
• My company's values emphasize a healthy work-life balance.	70%
• I personally agree with my company's values.	85%
• I do not know what my company's values are.	16%
• My company does not make its values clear to employees.	18%

Pressure to cut corners is lower. The overall perceived pressure to commit an ethics violation to cut corners, or worse – declined from 10% in 2007 to 8% in 2009.

- Retaliation against those who reported misconduct increased – which is a negative trend.

To improve the ethical practices in an organization, OCEG, Open Compliance and Ethics Group, a consultant company in USA, suggests in their 'OCEG on Time/Ethics' as follows:

- Determine your organization's current cultures.
- Learn whether your management and employees have the same view of ethical conduct.
- Align 'tone at the top' with real examples of ethical leadership.
- Develop and encourage ethical thinking in your organization.
- Establish organizational values around ethical conduct.
- Evaluate your efforts and know what to improve or change.

In the European Business Ethics Network's Research conference in June 2003 at Oslo, Norway, Prof.Joanne Ciulla founding faculty member of the Jepson School of Leadership Studies, USA, gave a talk on 'Leadership as Morally Dignified'. She asked "Why is it ethically difficult to be a leader? What are the sets of problems that leaders face?" She said that what answers to these is ethical leadership. She said "Some we call moral luck (the ability of leaders to know whether their action will turn out to be perceived 'moral' or not), moral consistency, ethics of the means, ethics of the ends and blind morality".

David Gebler in his article "Is Your Culture a Risk Factor', states that there are seven levels of an ethical organization namely: Financial Stability, Communication, Systems & Processes, Accountability, Alignment, Sustainability and Social Responsibility. While 'financial stability' is at the root and 'social responsibility' is at the top, a satisfactory co-existence of all the seven levels is equally important.

Research Findings

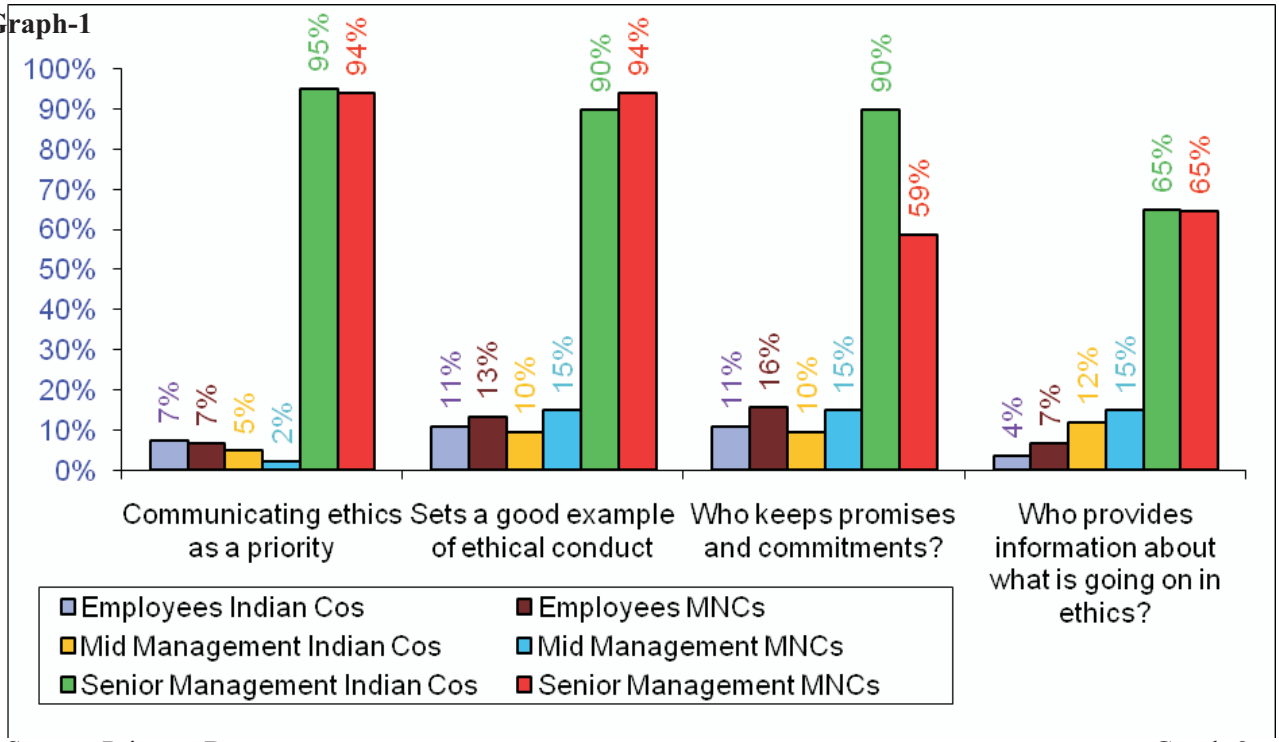
There are a few Ethical Related Actions (ERAs) which every ethically managed company has to observe. The degree of shouldering of such responsibilities varies among employees, mid managers and senior managers. The degree of response of the employees, mid managers and senior managers from MNCs and Indian companies for shouldering such responsibilities is indicated in the tabulations and the graphs shown below:

Table-1

Ethical Related Actions	Employees		Mid Management		Senior Management	
	Indian Cos	MNCs	Indian Cos	MNCs	Indian Cos	MNCs
Communicating ethics as a priority	7%	7%	5%	2%	95%	94%
Sets a good example of ethical conduct	11%	13%	10%	15%	90%	94%
Who keeps promises and commitments?	11%	16%	10%	15%	90%	59%
Who provides information about what is going on in ethics?	4%	7%	12%	15%	65%	65%
Who are held accountable for ethics violations?	20%	20%	26%	17%	75%	76%
Who supports in following organizational ethical standards?	5%	16%	14%	17%	85%	88%
Who considers ethics as a priority while making decisions?	5%	2%	7%	15%	80%	82%
Who talks more about importance of ethics?	0%	2%	7%	15%	99%	82%

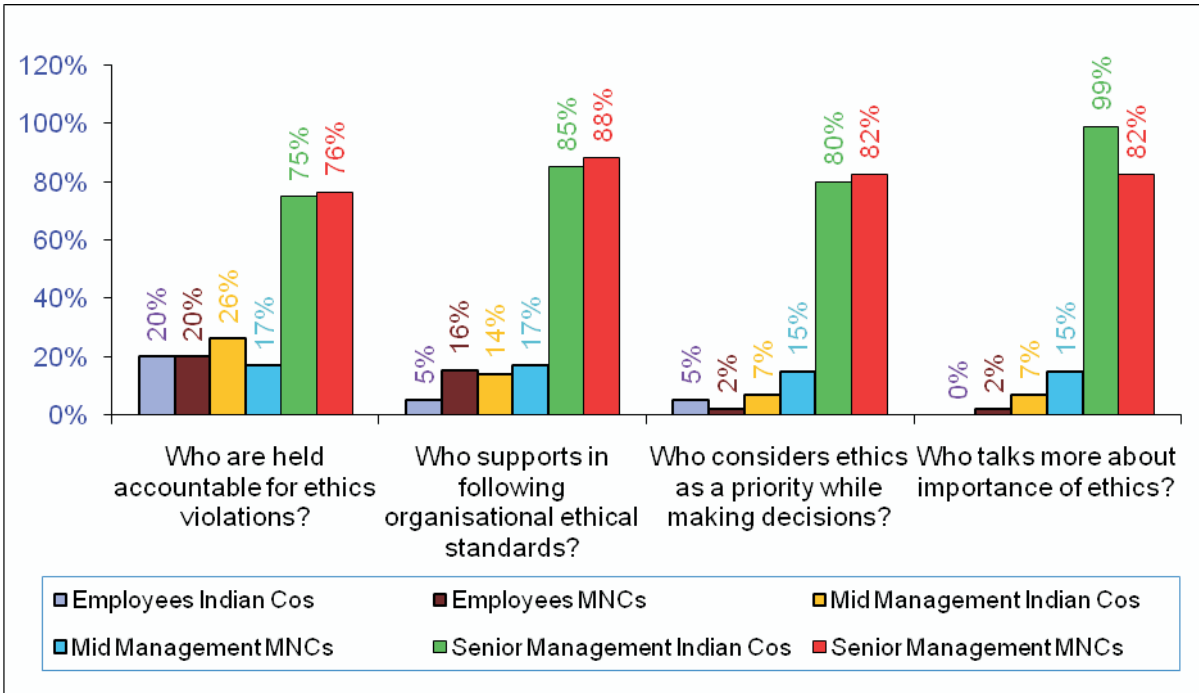
Source: Primary Data

Graph-1



Source: Primary Data

Graph-2



Source: Primary Data

Analysis & Findings

- For all the eight ERAs, the major responsibility for observance of the ERAs is resting with the senior management of both MNCs & Indian Companies.
- 20% each of employees from Indian Companies and MNCs and 26% & 17%

of mid managers from Indian Companies and MNCs respectively agree that they are 'held accountable for ethics violations'.All the employees and mid managers may not be satisfied with the ERAs of the senior management in the organization. The percentage of such satisfactions is indicated below:

Analysis & Findings

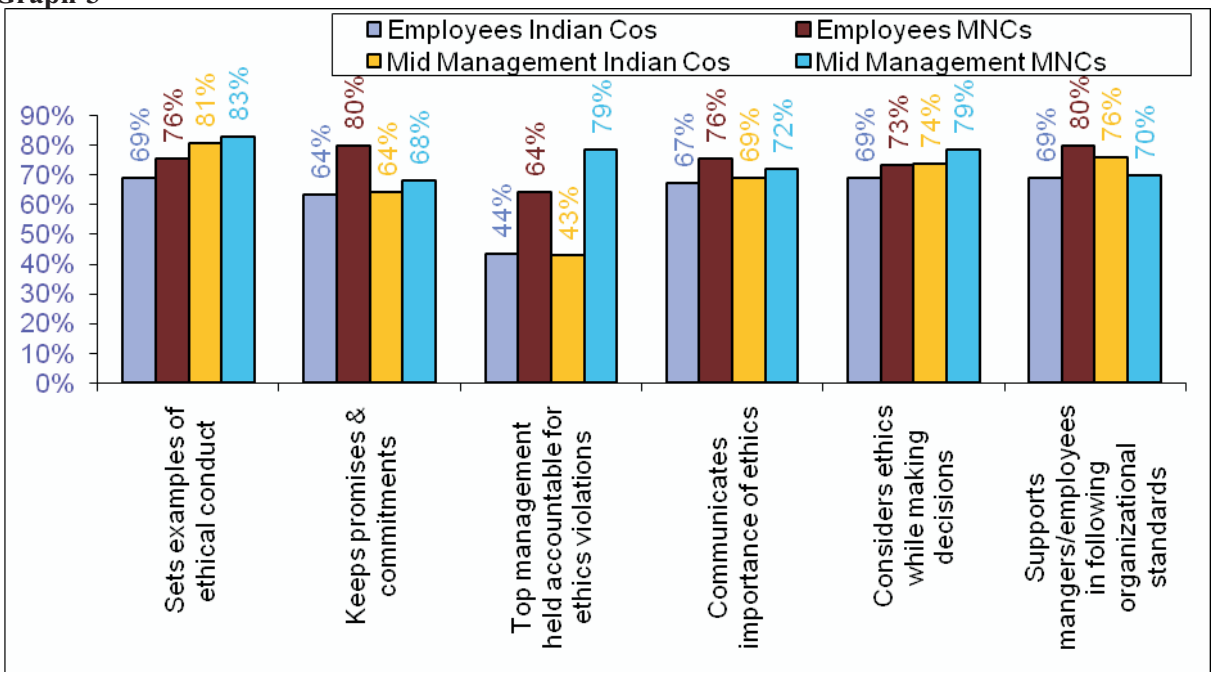
- A very high percentage of employees and mid management of Indian Companies & MNCs are satisfied with the observance of ERAs by the senior management.
- 44% & 43% of employees and mid managers respectively of Indian Companies opine that 'management should be held accountable for ethics violations'.
- 64% & 79% of employees & mid

Table-2

ERAs of senior management	Responses of			
	Employees		Mid Management	
	Indian Cos	MNCs	Indian Cos	MNCs
Sets examples of ethical conduct	69%	76%	81%	83%
Keeps promises & commitments	64%	80%	64%	68%
Top management held accountable for ethics violations	44%	64%	43%	79%
Communicates importance of ethics	67%	76%	69%	72%
Considers ethics while making decisions	69%	73%	74%	79%
Supports mangers/employees in following organizational standards	69%	80%	76%	70%

Source: Primary Data

Graph-3



Source: Primary Data

managers respectively of MNCs view that 'Top Management should be held accountable for ethics violations'.

Conclusions

Based on the responses of the employees, mid managers and Sr.Managers of the companies surveyed, and as indicated above, the following conclusions have been arrived at and suitable suggestions have been made: Ethical Related Actions is a 'Top Down' Approach:

For all the 'Ethical Related Actions' cited in the survey, from 'communicating ethics as a priority' to, 'who talks more about importance of ethics', the respondents from Indian companies and MNCs are of the unanimous opinion that 'senior management' has to shoulder more degree of responsibilities. This is a top down approach wherein the decisions are taken by the top management/senior management and percolated down to the bottom rung of management, workers and employees for implementation.

The employees & mid managers are satisfied with the 'Ethical Related Actions (ERAs) of the top/senior management:

From 'setting examples of ethical conduct' to 'supporting managers in following organizational standards', the employees and mid managers of the surveyed Indian Companies and MNCs are generally satisfied with the ERAs of the top/senior management. In the area of 'top management held accountable for ethics violations', the acceptance level of employees and mid managers of Indian Companies are only 44% & 43% respectively. It is suggested that top managers in both the MNCs and Indian Companies should be held more accountable for violation of ethical norms.

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Factors Influencing Preferences for Green Products

Sudipta Majumdar[1]

Green products have less impact on the environment and less damaging to human health than traditional products and are formed from recycled components, manufactured in a more energy-conservative way, or supplied to the market in more environment friendly way. Traditional products are manufactured in the traditional way. They are not being produced keeping environmental considerations in mind. Now, the green products have started competing with the traditional or regular products, but there are barriers. The two most important barriers are knowledge and awareness about the products. In this paper, we intend to examine the impact of individual attributes of customers towards marketing of green products. In the Indian context, green products are still consumed by a very small subset of customers and the consumption is largely dependent on individual attributes, i.e. demographic and psychographic characteristics.

Key words: Green products, environmental consciousness, psychographics, Green marketing

Introduction:

From the last decade onwards people became more concerned about their health as a result of which they are using more of green products. Now, green products can be stated as having less of an impact on the environment and are less damaging to human health than traditional products. Hence they are also called as sustainable or environment friendly product. Green products are formed from recycled components, be manufactured in a more energy-conservative way, or be supplied to the market in more environmental friendly way. So, people are becoming more aware about the concept of environmental consciousness. This reduces the usage of traditional or conventional products. Traditional products are those manufactured in the traditional way. They are not being produced keeping environmental considerations in mind. In today's competitive scenario green products are competing with the conventional or regular products (products produced by traditional methods).But, this usage pattern is not applicable to all parts of the society. Knowledge and awareness about the green products play a very vital role in enabling the customers to use them. But, this awareness and knowledge do not exist, thus restricting the usage of the green products. From the last decade onwards, we have started using the green products and it will take time before it penetrates to all parts of the society. In comparison to the conventional products, green products are generally biodegradable, non-toxic in nature and more environment-friendly. In their book “The Green Consumer”, John Elkington, Julia Hailes, and John Makower discussed several characteristics that a product must have, to be regarded as a "green" product. They contended that a green product should not endanger the health of people or animals, damage the environment at any stage of its life, including manufacture, use, and disposal, consume a disproportionate amount of energy and other resources during manufacture, use, or disposal, cause unnecessary waste, either as a result of excessive packaging or a short useful life, involve the unnecessary use of or cruelty to animals and use materials derived from threatened species or environments.

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The concept of green products is becoming more popular with the aspect of food items. Since people are becoming more health conscious, they are giving more importance to the consumable products. People started using more green products to minimize their health risk. But, here also like normal green products knowledge and awareness is not there in all parts of the society. So, these are more being used by the more knowledgeable parts of the society. Also, organizations and government are incapable of promoting the concept of "Green". But the best part is, the concept has started and it is penetrating to the society at a very fast pace. If all the factors which contribute to the popularity of green products, such as price of the product, its quality, customer's perception about the products, awareness about them, are being handled carefully by the government and the organizations, then they will become more popular in the society. The concept of green products, specifically green food items can be popular only if organizations understand the concept of green marketing. But to define green marketing is not an easy task. While green marketing came into prominence in the late 1980s and early 1990s it was first discussed much earlier. The American Marketing Association (AMA) held the first workshop on "Ecological Marketing" in 1975. The proceedings of this workshop resulted in one of the first books on green marketing entitled "Ecological Marketing".

"Green or Environmental Marketing consists of all activities designed to generate and facilitate any exchanges intended to satisfy human needs or wants, such that the satisfaction of these needs and wants occurs, with minimal detrimental impact on the natural environment."

Green marketing is a business practice that takes into account customer concerns about the natural environment. Green marketing campaigns highlight the different environmental protection characteristics for a company's products and services. The green marketing strategies include reduced waste in packaging (Elkington and Makower 1988; Wasik 1996), increased energy efficiency of the product in use (Metcalf ,2008 ; Sue Wing 2008), reduced use of chemicals in farming, or decreased release of toxic emissions and other pollutants in production (Sumathi & Hung, 2006). Organizations have responded to the growing customer demand for environment-friendly products in several ways, thus making the various components of green marketing. These include: 1) promoting the environmental characteristics of products; 2) introducing new products for the consumers concerned with energy efficiency, waste reduction, sustainability, and climate control, and 3) redesigning existing products to satisfy these same consumers

Theories behind the Study:

In this paper, we intend to examine the impact of individual attributes of customers towards marketing of green products. In the Indian context, green products are still consumed by a very small subset of customers and the consumption is largely dependent on individual attributes, i.e. demographic and psychographic characteristics (Harper and Makatouni, 2002; Ahmed and Juhdi, 2010). Impact of these characteristics is more evident for green food product segment (Davies *et al.* 1985; Lea and Worsley, 2005). In the following section, we summarize the findings by published literature on these issues.

The demographic variables are related to the basic characteristics of a person such as age, gender, income etc. which affect the consumer buying behavior. With respect to green products, the various demographic variables which affect customer's attitude towards green food products are age, gender, household income, education, social class, etc. The age of the customers affected significantly the purchasing of organic food products (Davies *et al.* 1985). Similar observations were reported in some other papers (e.g. Lea and Worsley, 2005) where impact of age on customer's belief about the organic food products was established. Middle-aged persons have a strong positive belief about the effects of organic items which they consider as an alternative of conventional food products (Lea and Worsley, 2005). Household income also

positively influences consumption and purchasing of organic foods as reported in several papers (Davies *et al.* 1995; Lea and Worsley 2005; Chinnici *et al.* 2002). Also it was examined that the composition of a family infer that households with children and specifically women members of those families prefer buying more green food items than that of the household without children(Davies *et al*, 1985). The higher formal educational level also positively influences the purchasing behavior for organic food items (Lockie *et al.* 2002; Ahmed and Juhdi, 2010). This is because more education makes the consumers more aware about the environment which will ultimately influence their purchasing behavior.

We have found from the above discussion that, green food product consumption is being studied based upon some basic demographic variables. Since income of the consumer plays a pivotal role in green food product consumption, it can be further studied along with the effects of occupation. This aspect was examined on the consumers buying behavior but not on green food products (Cline *et al.* 2006). Also, no study has been made regarding the impact of cultural aspects (Razzaque, 1995) on green food product consumption. So, the study can be made in finding out the relationship between consumption of green products and foods items with respect to occupation and cultural background of the customers.

From the existing literature, psychographics is being defined as the study of personality, values, attitudes, interests, and lifestyles (Senise, 2007). This mainly focuses on interests, activities and opinions (IAO) of the customers. Hence psychographic variables can be interpreted as combinations of demographic and psychological variables which impact customer's attitude in an overall manner.

It was observed that there is a general perception about organic food products catering mainly for higher social classes (Harper and Makatouni, 2002). It is further stated in the same paper that people from those classes have an affordability as well as consciousness regarding organic products, thus resulting in green food product consumption. Few authors have also discussed about people's tendency towards safe and healthy organic products intake influencing positively the customers' intention to purchase them (Ahmed and Juhdi, 2010). Also, (Davies *et al.* 1995; Lea and Worsley 2005) in their paper referred that green consumers prefer buying organic food products for their health concern. So, health is an important factor driving the customers for green food product consumption. Contradictory results are also published in a paper by Pickett-Baker and Ozaki (Pickett-Baker and Ozaki, 2008), where authors fail to conclude any positive correlation between positive environmental beliefs and propensity of the customers to go for buying more green products.

Environmental knowledge and attitude play a significant role in customers' tendency for green food product purchasing as reported in several papers. Many authors stated that environmental consciousness generates more interest of the customers towards organic products (Schlegelmilch *et al.* 1996). Kaiser *et al.* (1999) in their paper reported that environmental values and environmental knowledge are important factors which affect ecological behavior intention ultimately helping in building customer's attitude towards organic products. Also Ahmed and Juhdi (2010) referred that customers are positively inclined towards environment friendly farming because of their environmental consciousness and it leads to positive customer intention to buy organic products. Lockie *et al*. (2002), said that the consumers' familiarity with the green products, generate more interest to consume them. This is common to conventional consumer's behavior. They also stated that the mood of the consumers, i.e., to keep him relax is positively correlated with organic food consumption. The customers believe that consuming organic food items make customers stress-free.

Apart from health consciousness and environmental belief, several other psychographic variables are also tested in literature like customers belief towards information authenticity, political motivation, skepticism etc. Kozup *et al.* (2003) said that more proper information from credible sources

increase the consumption of organic food products because of customers' environmental belief and authenticity of the information provided. Similar observation was reported by Schlegelmilch *et al.* (1996), by inferring that more knowledge, i.e., detail factual information about the organic products improves the chance of customers' buying them. Also, it was said that the customers' previous experience of using some environmental brands i.e., the brands which produce the products in environment- friendly way have an impact on their chances of selecting those brands only for repeated usage (Pickett-Baker and Ozaki, 2008). In another paper, it is being stated that recycling activities positively influences pro-environmental purchasing behavior for those customers who can dedicate more time and effort (Schlegelmilch *et al.* 1996). Same papers also stated that politically motivated activities act positively only for those customers who are environmentally conscious. In the paper by Chang (Chang , 2011), it is being discussed that perceived higher price, lower quality and skepticism negatively and perceived emotional benefits acting positively will create more ambivalence attitudes of the customers towards buying green products.

From the above discussion we conclude that the relationship between environmental consciousness, beliefs, knowledge and green product usage had been studied, but not for green food products. So, research can be made to study the role of the above mentioned factors in creating customer's attitude towards green food products. Also the effect of information level about the food items in forming green product consumer behavior is also an interesting research area. No study had taken place to find out the impact of lifestyle, religion, social responsibility, risk taking characteristics (Razzaque, 1995) of the customers towards green product consumption, although these variables are applied in other fields. So, this study can be further extended to find out the effect of the above mentioned variables on building customers' behavior towards green products consumption.In addition to demographic and psychographic variables, the different product specific variables affect the customers' attitude towards green products. The various variables discussed in the literature are environmental brands, brand name, product type (Green vs. non-green),preferences for green attributes for the products, green technology, energy savings .Whereas, with respect to green food products, Heart healthy claim on food products, nutritional information about the food products, nutritional content of the alternative products, price, product types (fresh fruit, fresh vegetables, meat, milk and dairy products, cereals and cereal products) were discussed in the literature.

In the paper by Pickett-Baker and Ozaki (2008), the author stated that environmental brands, i.e., the brands which produce the products in environmental-friendly manner will positively influences customers green product purchase decision. In his paper, Mobley *et al.* (1995) reported that only branded green products create positive impression in the minds of the customers. Lin and Chang, 2012) had said that green or non-green products affect the environmental conscious customers' usage amount for the products. Olson (2012) stated that using green technology consumers use more products with energy efficiency. He also stated that energy savings characteristics of the products positively influences customers attitude towards green products.

Kozup *et al.* (2003) stated in their paper that heart healthy claim, nutritional information on the food products partially affects consumer's evaluation of the packaged food products. Also, nutritional content of the alternative food items negatively influences consumer's evaluation of packaged food items. In other papers the authors discussed about the negative effect of price towards organic food consumption. So, price is a significant barrier for customer's attitude formation towards green food products consumption (Lockie *et al.* 2002).

From the above discussion, we find out that only environmental branded products impact customers' attitude. But no work had been done studying the role of environmental brands on green food product consumption and how unbranded green products impact customers'

attitude towards green products consumption. Also an interesting research area can be finding the role of price in green product consumption.

In addition to the demographic, psychographics and product specific variables, there are various external, i.e., environmental variables which leads to specific customer behavior. From the reviewed literature it was found that customer's attitude towards green food products s being affected by information people have about organic products, tasty, availability, expensive, food value , natural content, animal welfare, convenience, environmental protection, food production method, source of information, purchasing place(hypermarket, supermarket, organic stores, farms), purchasing difficulties(difficult to find, high prices, poor range of choice), word of mouth, marketing communications, information about green products, claim Type.

Ahmed and Juhdi (2010) had discussed that information people have about organic food products negatively influences customer's purchase intention towards the products. But in another paper, the authors had reported that more information people have about the products, the more customers will be interested to consume them (Chinnici *et al.* 2002).Again,Lin and Chang (2012) stated that only the positive information about the products influences positively user's perception of the effectivity of the green products . Also, Pickett-Baker and Ozaki (2008) stated that effective marketing communications, i.e., communicating all the desired information about the product influences positively consumers' green product purchase decision. He had also reported that word of mouth communication is the most effective tool to convince the customers about the positive aspects of green products. Chang (2011) had stated that the claims organizations make about the products have a positive impact towards ad believability only if they are from authorized sources. Lea and Worsley (2005) had reported that organic food products tastes better than conventional products and availability and expense customers have to bear for these acts as barriers towards creating consumers belief about organic food items. Harper and Makatouni (2002) have concluded that more environmentally friendly food production method generates positive customers' perception about the products. Again more food value creates more positive belief about the products. More natural content for the organic food items, concern for animal welfare and environmental protection creates more customers' interest towards these products (Lockie *et al*. 2002). And the customers were buying more organic food items from hypermarket, organic stores and farms where they are more motivated towards buying them by the overall environment.

Conclusion:

From the above discussion, we can see that different papers have reported varied roles of information in creating customers attitude towards green products. So, this inconsistent relationship can be tested with respect to green food items. Also, study can be done to find out the most effective way the organizations can use to convince the customers about green products. Some papers find out that taste sometimes positively and sometimes negatively influences green food product consumption. So, studying the impact of taste in case of green food product consumption will be an interesting research area

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Modeling Health Insurance Selection in Indian Market using Data Mining Approach

Pratik Biswas[1] and Partha Sarathi Bishnu[2]

Health insurance costs across the world have increased alarmingly in recent years, just as the number of insurance companies and their health care schemes have also gone up. In view of high expense in medication, health insurance policy is very essential for individuals today. These policies are provided by both insurance companies and banking sectors with different medical plans. The selection of appropriate medical insurance plan by a customer has been becoming a difficult task day by day. Perhaps this is the reason why a web site like policybazar.com is so popular from customer's point of view. In this paper, authors made an attempt to model health insurance policy selection using Data mining approach.

Keywords: *Data mining, Customer satisfaction, Healthcare.*

Introduction

Data mining can be defined as a process that uses a variety of data analysis tools to discover patterns and relationships in data that may be used to make valid predictions. Data mining tools are based on highly automated search procedures. In present era various insurance companies are producing enormous amounts of information regarding medical facilities provided by them which are difficult to select. So, there is a need of powerful automated data mining tools for analysis and interpreting the useful information from this data. This information is very valuable for a customer to understand the cause of diseases and the benefits provided by the companies in order to cost effective treatment to patients. Data mining offers novel information regarding healthcare which in turn helpful for making financial as well as medical decision. We describe our framework, problem formulation, evaluation metrics, and experimental results on the basis of data from a large range of health insurer providedby different banking sectors like Bank of India, Punjab national bank, State bank of India with collaboration with national insurance, the oriental insurance company limited.

Because of the rapid progress of information technology, the amount of information stored in insurance databases is rapidly increasing. These huge databases contain a wealth of data and constitute a potential goldmine of valuable business information. Health insurance becomes a major field for insurance companies now a days. Different companies are providing different lucrative scheme to fetch the customer's attention. These schemes are full with medical benefits. This article addresses the selection of the health insurance plan in customer point of view. We first propose a table to gather various medical services (facilities) provided by different banks and insurance companies. Then, with this table, we applied data mining technique to extract best medical information for the customer. The outcome shows several interesting results, which suggest that the reuse of stored data will give a powerful tool to improve the decision quality taken by the customer.

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Why Health Insurance Is Important?

As healthcare is becoming very costly now days, having health insurance is important because medical coverage helps people get timely medical care and improve their lives and health. It is also found that uninsured people receive inadequate medical care and also not in time, risking their health. Lack of medical insurance is a fiscal burden for uninsured people and their families. The benefits of expanding coverage outweigh the costs for added services.

1.2 Information about Medical Plans Proposed by Insurance Companies

We are data rich, but information poor. Cashless Bima policy is an unique Health insurance Policy designed especially for the account holders of different Banks of India [1][2]. The entire family consisting of the account holder, spouse and two dependent children can be covered under this policy. It generally covers the following services: Incentive care unit expenses. Room stay including I.C.U, Surgeon, Anesthetist, Medical Practitioner, Consultants, Specialists Fees. Anesthesia, Blood, Oxygen, Operation Theatre Charges, Surgical Appliances, Medicines & Drugs, Dialysis, Chemotherapy, Radiotherapy, Artificial Limbs, Cost of Prosthetic devices implanted. Reimbursement of Funeral Expenses, in case of death of the insured person during surgical procedure like pacemaker, Relevant Laboratory/Diagnostic test, X-Ray etc [1]. Ambulance services In general 1% of the sum insured. Hospital cash, Reimbursement of incidental expenses during the period of hospitalization during the policy period to an insured peril covered under the period. Domiciliary Hospitalization: Surgeon, Medical Practitioner, Consultants, Specialists fees, blood, Oxygen, Surgical Appliances, Medicines & Drugs, Diagnostic Material and Dialysis, Chemotherapy, Nursing expenses during policy period [1][2]. A fixed amount of premium during the benefit period, an insured person pays before the insurer starts to make payments for covered medical services. Plans may have both per individual and family deductibles. Flexible benefit plans are also available which offer employees a choice between permissible taxable benefits, including cash, and nontaxable benefits such as life and health insurance, vacations, retirement plans and child care [1][2].

1.3 Tree-Based Model

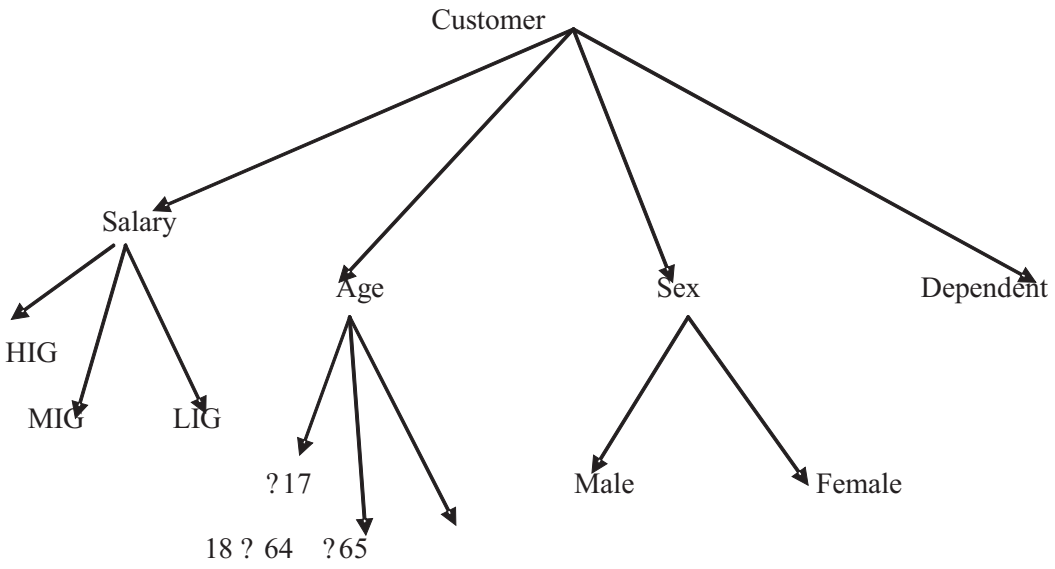


Figure1. Customer attribute on the basis of socio economical status

In figure1 customer's attribute is shown on the basis of socio economical status, here customers are broadly divided into four categories, Salary: High income group. Middle income group and lower income group. Age: below 17, years in between 18 to 64 years and senior citizen that is above 65. Sex: whether male or female and at last dependent or not. It is made because health insurance policies are also following certain rules .A customer can have the maximum benefit only when the match between the policy and requirement is perfect.

2. Methodology

We now discuss about the selection of medical insurance by applying data mining technique.

2.1. Data acquisition: The first step is to gather information about the benefits given by the various insurance companies either by verbal communication or from webpage of the company. We construct an initial table, "Table1", where summary information regarding policies and diseases are plotted with the following conditions [12]:

$P_i D_j = 1$, When policy (P_i) covers disease (D_j) ---(1)

$P_i D_j = 0$, policy (P_i) does not covers disease (D_j)

For, $i = 1,2, \ldots,n$ and $j = 1,2,\ldots,m$.

n is no. of policies and m is no. of diseases.

2.2. Customer Preference Data: Customers are divided in to four groups on the basis of their socio economical status, and then the data (information) are processed on the basis of their priorities. Here we construct another table on the basis of distance calculation (d_k) [k = 1, 2, ... n] between policies and customer preference using formula [12]:

$$d(i,j) = v\,(x_{i1} - x_{j1})^2 + (x_{i2} - x_{j2})^2 + \ldots\ldots\ldots\ldots\ldots + (x_{in} - x_{jn})^2 \quad \text{---(2)}$$

Where $i = (x_{i1}, x_{i2}, \ldots x_{in})$ and $j = (x_{j1}, x_{j2}, \ldots x_{jn})$

are two n dimensional data object .

We had selected min (d_k) for k = 1, 2, …….n., the k^{th} policies will be best selection for the customer.

Table 2 indicates customer's preferences towards coverage of dieses by"1" and dissatisfaction by "0". Here selection is done by one particular set of customers, which may change according to the change in priority of the customer.

2.3 Selection Method:

In figure2 collection of information and their comparison is shown, next we select the best one on the basis of the distance formula using equation2 and the minimum distance indicates the customer's preference and plotted in table 2 .

3. Conclusion:

It may be noticed that there are anomalies in the selection of policies since expectations of different types of customers from health insurance are different. For some, it may be only healthcare benefits whereas for some it is tax benefit that is more important. It is found that whether it is a private insurance company or a government organization, facilities given are similar, with the only difference being in their terms and conditions and premium amount. However, each person would like to take only one policy. Hence, the suggested technique is useful for appropriate policy selections by different profiles of customers

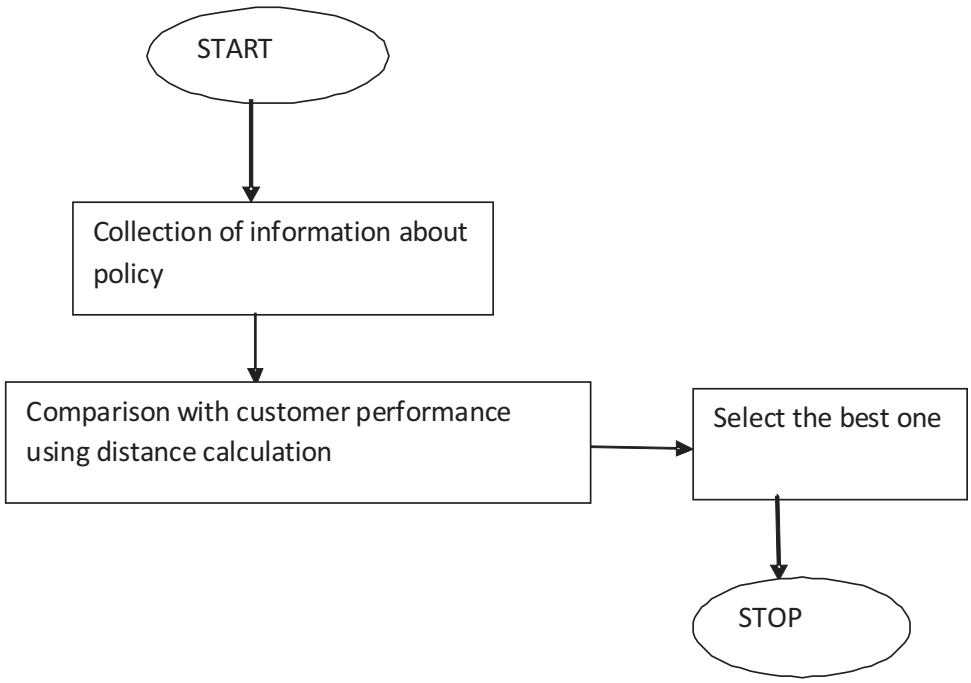
Table1: Policies against diseases database.

D_1	D_2	D_3	D_4	D_5	D_6	D_7	D_8	D_9	D_{10}	D_{11}	D_{12}	D_{13}	D_{14}	D_{15}	D_{16}	D_{17}	D_{18}	D_{19}	D_{20}
0	0	1	1	1	0	0	1	1	1	1	0	1	0	0	1	1	1	0	1
1	0	1	1	1	1	0	1	1	1	1	0	1	0	1	1	1	1	0	1
1	0	1	1	1	1	1	0	0	1	1	0	1	0	1	1	1	1	0	0
0	0	1	1	1	0	0	1	0	0	1	0	1	0	1	1	1	1	0	1
0	0	1	0	1	0	0	1	0	0	1	0	1	0	1	1	1	0	0	0
1	0	1	1	1	0	0	1	1	1	1	0	1	0	1	0	0	0	0	1
1	0	1	0	1	0	0	0	1	0	0	0	1	0	1	0	1	1	0	1
1	0	1	1	1	0	0	0	1	1	1	0	1	0	1	1	1	1	0	0
1	0	1	0	1	0	0	1	1	0	0	0	1	0	1	1	0	1	0	1
1	**0**	**1**	**1**	**1**	**0**	**0**	**1**	**1**	**1**	**1**	**0**	**1**	**0**	**1**	**1**	**1**	**1**	**0**	**1**
1	0	1	1	1	0	0	1	1	1	1	0	1	0	1	1	1	1	0	0
1	0	1	1	1	0	0	1	1	1	1	0	1	0	1	1	1	1	0	1
0	0	1	1	1	0	0	1	1	1	1	0	1	0	1	1	1	1	0	1
1	0	1	1	1	0	0	1	1	1	1	0	1	0	1	1	1	1	0	1
1	0	1	1	1	0	0	1	1	1	1	0	1	0	1	1	1	1	0	1
1	0	1	0	0	0	0	1	1	1	1	0	1	0	1	1	1	1	0	1
1	0	1	0	1	0	0	1	1	1	1	0	1	0	1	1	1	1	0	1
1	0	0	1	1	0	0	0	0	1	1	0	1	0	1	1	1	1	0	1
0	0	1	1	1	0	0	0	1	1	1	0	1	0	1	1	1	1	0	0
1	0	1	1	1	0	0	1	0	0	1	0	1	0	1	0	0	1	0	1

Table2: Customer pereference table

D	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Customer[Cj]	1	0	1	1	1	0	0	1	1	1	1	0	1	0	1	1	1	1	0	1

Figure2. The Workflow of Decision Model.



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Mall Shopping in Small Cities: Mania or Necessity?

Nidhi Kumari[1]

Mall shopping is fast mesmerizing the residents of small cities like Patna, with a rising progression of classy malls that gives an opportunity to do effective and efficient shopping and spare quality time with family and friends. Shopping from mall has become a status symbol. Mall shopping is fascinated because of the attraction in the looks and the comfort it caters. Mall comfort, good economic condition and busy life style of consumers have become the three main drivers of mall shopping. This study specifically explores the ideas across necessity of shopping and mania for shopping towards shopping mall. The results explain different traction of the trend of Mall shopping in small cities.

Key Words:Mall Shopping, Small Cities,

Introduction

Bihar's capital, Patna, is the most populous and the largest city of Bihar. Patna retail market has undergone a major image change in the last few years. The economic condition of Patna has seen a sustained growth. Shopping is one of the favorite entertaining activities in Patna. The market of organized retail industry has been steadily rising in Patna. The importance on infrastructure, facilities and the services provided under one top has allowed an improved version of shopping hub.

It can be stated undoubtedly that the growth of retail organized chains, branded shopping malls is the proof that consumer behavior is changing positively towards Mall shopping. Basically shopping mall abbreviated "one stop service" means a super market which provides varieties and range of products e.g. households, clothes, kid's corner, fun zone, food & coffee corner, theatre and education all within one campus. Thus shopping mall has become a fashion mall.

In India, Mall shopping has been in practice for the past 12 years, but for many people in Patna this is still an unfamiliar activity. Therefore as far as the real shopping for goods and products is concerned, this is not wrong to say that old and traditional shopping centers like Patna Market, Hathwa Market, Lalji Market, and Kurji Market etc. have also positioned their trust in the mind and heart of customers since many years. The customer's loyalty with this trust ensures steady sales in unorganized retail market as well. Therefore in circumstances, where new model of retailing, specially shopping malls, are increasing at a rapid pace in Patna and also, due to limited success of major outlets of these upcoming malls, it is necessary for managers of malls to identify the factors behind consumer behavior towards mall shopping.

Objective:

1. To understand the shopping orientation towards mall shopping in small cities.
2. To identify the impact of demography like age, income, occupation on mall shopping in small cities.
3. To understand the retailers perception towards mall shopping.

Plan of the Study

In order to analyze the motive behind mall shopping, a survey on opinion towards mall shopping through a conversation between married couples is undertaken. In this study, both primary and secondary data are used. Secondary data are collected via internet from different sites. For collecting primary data by interview method, two sample groups were taken. One sample size of 10 respondents are chosen for interviewing retailers of shopping mall and another sample size of 20 respondents are chosen randomly from the shoppers of Shopping Mall.

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The article concludes with precise solutions for the shopping orientation towards and power of shopping and fascination of shopping malls.

Theoretical Framework

According to Business Dictionary.com, the definition of shopping is "The process of browsing and/or purchasing items in exchange for money". Shopping is an activity that is essential for our lives. Almost all people spend some part of their life in shopping for food or other essentials. We have many different formats of shops. We can go to:

- A shopping Mall
- A big departmental store
- A smaller local shops
- An outdoor market etc.

Shopping Mall: A shopping mall, shopping center/centre, shopping arcade, shopping precinct, or simply mall is one or more buildings forming a complex of shops representing merchandisers, with interconnecting walkways enabling visitors to walk from unit to unit, along with a parking area – a modern, indoor version of the traditional marketplaces. (qtd.in Wikipedia, the free encyclopedia). It has a variety of sections where we can buy a mixture of goods – clothes for men, women and children, footwear, electronics, books and stationary, furniture, perfume, cosmetics and of course food. Generally it is preferred once a week.

Departmental Store: Large retail establishments with an extensive assortment in variety and range of goods, organized into separate departments. All departments are housed under the same roof tofacilitate buying, customer service, merchandising, and control (qtd.in Business Dictionary.com). According to Thomas, "a departmental store is a large retail establishment having in the same building a number of departments each of which confines its activities to one particular kind of trade and forms a complete unit in itself."

A smaller local shops: This type of shops are generally well-liked by older people in the villages or places where there aren't any shopping malls. They often have a familiar behavior with their customer, know each other in that shop, and talk about daily problems. Generally owners of such shops often live on top floor of the same building. It's their life.

An outdoor market: Outdoor markets are deliberately set into the places over lots of people habitually walk in e.g. from their jobs. It is a place of huge combination of goods: fruit, vegetable, also clothes.

Consumer Buying Behavior

The process by which individuals search for, select, purchase, use, and dispose of goods and services, in satisfaction of their needs and wants. (qtd.in businessdictionary.com). It is the behavior of customer that inclines them towards specific buying habit to fulfill their actual and desired needs.

Factors Influencing Consumer Behavior

Culture: Culture, Sub-Culture, Social Class
Social: Reference Groups, Family, Roles and Status, friends.
Personal: Age and Life-Cycle Stage, Occupation, Economic Situation, Lifestyle, Personality and Self – Concept
Psychological: Motivation, Perception, Learning, Beliefs and Attitudes.

Some of the trendy shopping malls in the Patna retail market are:

Name of the mall	Location	Description
P&M Mall	Near Patliputra Industrial Area, Patliputra Kurji Road, sheikhpura, Patna – 800014	The objective of this mall is to supply a unique shopping experience, i.e. Family Entertainment Centers at single-point. This multi-utility shopping mall can meet the changing needs of new-millennium consumers.
UFO Mall	Anisabad, Patna – 800004	This Mall is positioned at the main location of Patna. The Mall is a type of business complex with all modern and hi-tech amenities, as well as regular security check.

Vasundhara Metro Mall	South Gandhi Maidan, Adharshila Complex, Patna – 800001	It provides a very good-quality parking facility to the visitors. The mall has well-designed interiors.
Patliputra Shopping Plaza	Fraser Road, Maharaja Kameswar Complex, Patna – 800004	It is a big mall providing wide range of products of different brands. It has an individual outlet including super market.
Vishal Megamart(Pandey Mall)	Frazer Road Patna, **Bihar** Pin Code: 800001	It is a supermarket providing all types of essential items and products like food, electronics, furniture, cloths, cosmetics, grocery etc. under one top.
NP Center	Address: New Dakbunglow Road Patna, Bihar	The oldest among the malls in Patna with varieties of product and services. The malls have offices of various organizations. The mall is in the centre of Patna

A Case Study on Mall Shopping Orientation

A bright morning in the month of November when winter season was in rising mood with its flare seen in everywhere, Mr. Shah suddenly heard an unexpected voice " ***Wake up wake up, today is Sunday and we need to go to shopping"*** of his wife Mrs. Shah breaking his morning aroma and silence.

Mr. Shah somehow came out of his dreamy mood and tried to take part in the conversation:

Mr. Shah: *Yes I know, today we have to go. But dear please let me complete my sleep as I'm very tired since last evening.*

Mrs. Shah: *Okay then, we are not going to finish today. Look at Mr. Khandalwala, last Sunday they've completed their total deepawali shopping from Patna market and it took 9 hours in the whole.*

Mr. Shah: *(He simply jumped from bed and with weird face asked) you want me to move one shop to another after having a tiring week of work. I thought we are going to P&M Mall.*

Mrs. Shah: *What? P&M Mall! But why? We have always purchased from the renowned store where we can have variety as per our liking.*

Mr. Shah: *Grow up, mall has more variety.*

Mrs. Shah: *But they are very costly.*

Mr. Shah: *They always have good offers and discounts.*

Mrs. Shah: *God knows better about their real discount, I'm not interested to get the worse in cash discount.*

Mr. Shah: *No they have more variety and also display, which saves time.*

Mrs. Shah: *They do not save time they let you buy unnecessary items.*

Mr. Shah: *All my colleague go to the mall only and they have pretty good experience in purchase as well as spending time. You know there are kid's corner, food corner, coffee houses and many more things which anyone can like.*

Mrs. Shah: *(In taunting way) Do you want a shopping for the festival or you just want to join your office race as they have a mania for mall shopping to show their big pockets?*

The above conversation between Mr. Shah and Mrs. Shah is not exceptional; in fact it happens in many families and shows how people have inclination towards shopping at malls and street market. The opinion varies from person to person with respect to situation and product type. Mall shoppers are primarily motivated by convenience. Here the factors that are more likely to influence purchase intention include product type, prior purchase, and, to a lesser extent, gender. Cost is also one of the big factor that shopping mall is facing today. Local or street market is a low cost structure, mostly owner-operated, has negligible real state and labor cost and little or no taxes to pay.

In Patna consumer behaviour is changing with a clear shift towards Mall shopping. Here the buying behaviour is moving towards the modern concepts of shopping such as mall shopping.

Mall shopping in developed countries like America is a necessity – firstly, because you cannot find street shops as they are available in small cities. Secondly, the people there do not have time to keep on wandering from one place to another for shopping, when all products are easily and comfortably available in malls - here they are not bothered much about the prices as much as their comfort level. But in small cities, mall shopping is more for passing time than doing real shopping. In small cities you do not have many places to go on weekends and mall shopping helps them to see variety of products that too in a chill environment. So most of the time people go out for window shopping and shop may be just one or two products and spend the whole time looking around and having lunch or dinner at some joint there and come back satisfied that they have been able to spend their weekend

in comfort. If we look at the other perspective also, in small cities, sometimes people do not want to have a cumbersome task of buying things from small shops as they are not satisfied by the quality of the product, but in malls since the products are made very attractive by wonderful clean packing, people are tempted to go and buy products there.

Retailers' Perspective on Mall Shopping

- "Consumer behavior towards mall shopping is extremely different than expected" says Mr. Ajit Kumar (Store Manager) Blackberry P N Mall.
- "Higher customer traffic to the malls is just because of restaurant and entertainment" says Mrs. Sherin Siddiqui (Floor Manager) Wills Life Style P & N Mall.
- "Our perceived profit has been far away than real profit" says Mr. Harsh raj (Floor Manager) UCB P&M Mall.
- "Patna's customers are at very nascent stage as far as modern retail is concerned. So they are very eager to do shopping in malls." Says Mr. Abhishek Kumar Mishra (Department Manager) Big Bazaar.

  "The mall management should arrange some special program all the time so that there will be more crowd to increase the sale." Says Mr. Manish Kumar, VIP LOUNGE, P&M Mall.

On the basis of above opinions from different retailers it is clearly understood that retailers have to work out very hard to gather crowd for real shopping in order to obtain substantial portion of Patna retail trade.

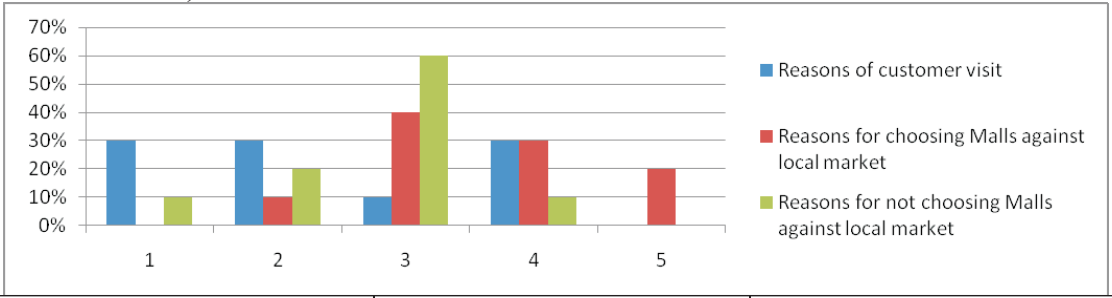
Consumers' Perspective on Mall Shopping

Consumer familiarity is the big advantage of traditional market. The niche of the traditional shopping is well present in the market of Patna where friendly rather homely treatment to customer makes them realize that the seller knows and understands better about their liking and choice, that too, in consumer affordable price. In case of Mall shopping the attraction comes with the display and the ambience of the mall. The customer is independent to choose as per their choice which make them feel delighted.

Findings and Results

As per Retailers:

- 100% retailers agreed about positive change in the buying behavior of consumer in recent time towards mall shopping.
- Retailers believe that still shopping malls have not been able to occupy substantial portion of the retail trade.



Reasons of customer visit			Reasons for choosing mall against local market			Reasons for not choosing Malls against local market		
1	Food & Beverages	30%	1	Nearness to house/ locality	0%	1	High Cost of product	10%
2	Fun & Entertainment	30%	2	Friendly shopkeeper/ good relation	10%	2	Poor Communication with sales people	20%
3	Latest fashion and clothing	10%	3	Good range available	40%	3	Lack of personalized service	60%
4	Consumer durables	30%	4	Good ambience	30%	4	Lack of credibility	10%
			5	Special offers and discount	20%			

- Basic attraction of mall shopping is due to consumer durables, food and entertainment with equal acceptance by retails i.e. 30% with total of 90%.
- Retailers believed that the attraction towards mall shopping is due to good range, good ambience and the discount options. It is opinion of almost 100% of the Retailers.
- Local market is acceptable to consumer because of the personalized service available in those markets. 60% of the retailers are of this belief.
- Retailers have strong belief that Patna trend towards mall shopping will be giving strong threats to local market in coming time.

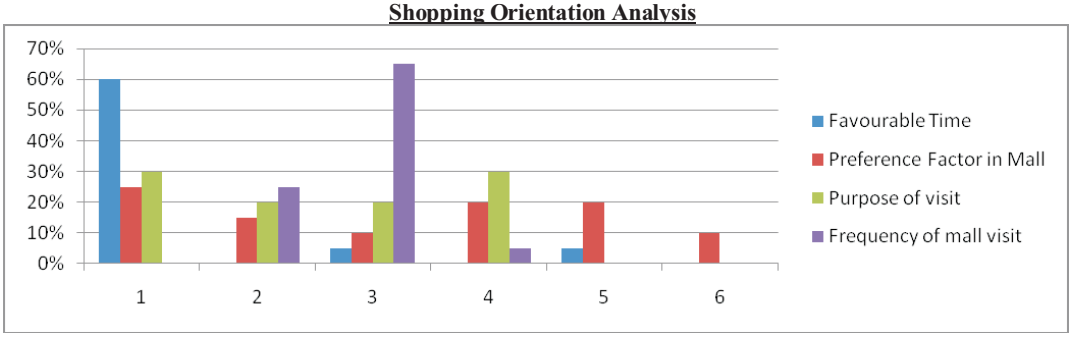
includes 75% of the crowd.

- Service holders, Homemaker, and Professionals are the frequent visitor to Mall comprising 85% of total populations visiting mall.

In respect to source of family income, it was observed that Dual Income and Multiple Income generating families have more craze towards mall shopping which includes 65 % of the crowd. Bachelor crowd holds good number with having 25 %. It is found that 70% of the mall shoppers belong to the category of more than 50k income per month and 25% of the crowd comes under to 25k-50k income per month.·

Individual Sections in all categories and convenience with good shopping experience with time factor

Shopping Orientation Analysis



Favourable time			Preference factor in mall			Purpose of visit			Frequency of mall visit		
1	On sunday/ holiday	60%	1	Time factor	25%	1	Fun & entertainment	30 %	1	Everyd ay	0%
2	While going to work place	0%	2	Discount scheme	15%	2	Family outgoing	20 %	2	Once in a week	25%
3	While coming from work place	5%	3	Adequate parking space	10%	3	Shopping	20 %	3	Twice a month	65%
4	In lunch break	0%	4	Individual sections for all categories	20%	4	Eating	30 %	4	Other	5%
5	Other	5%	5	Good shopping experience with convenience and variety	20%						
			6	Organised shop with international ambience and a.c. All around	10%						

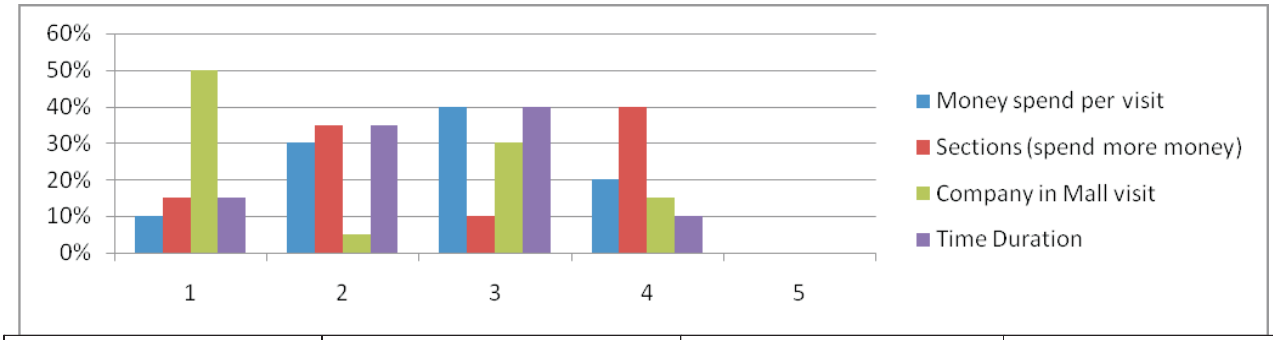
As per consumers:-

- Inclination towards shopping at Malls is very high stating 95% of crowd likes mall shopping...
- Mall shopping is majorly populated by the age group of 20-35 yrs and 35-50yrs,

importance are the major reason which attracts shoppers towards mall. These three factors comprise 65% of the populations.

- In response towards favorable shopping time, 60% consumers' preference is on holidays/Sunday

Usually the visiting frequency of the .



Money Spend Per Visit			Sections (Spend More Money)			Company In Mall Visit			Time Duration		
1	Below Rs.200	10%	1	Apparels	15%	1	Family	50%	1	Less than 1 hr	15%
2	Rs. 200 – Rs. 500	30%	2	Food & Beverages	35%	2	Spouse	5%	2	1hr – 2 hrs	35%
3	Rs. 500 – Rs. 2000	40%	3	Movies & Entertainment	10%	3	Friend	30%	3	2hrs – 3hrs	40%
4	Rs. 2000 & above	20%	4	Consumer Durables	40%	4	Alone	15%	4	More than 3 hrs	10%
			5	Gifts & Electronics	0%						

crowd is twice a month which is 65% of the crowd.

- Mall has a basic attraction of fun zone and food outlets i.e. 60% and other aspects are not on priority including shopping
- Expenditure in the mall comes under the range of Rs.500-Rs.2000 which is the average amount of expenditure made per visit; around 40% of crowd comes under this category.
- Consumer's durable and food & beverages have major attraction in mall shopping comprising 75% of crowd in the Mall.
- Patna people prefer to visit mall with family and then with friends
- Generally the time spent by the consumer at mall is more than 1 hr, as per data 75 % of the crowd spend 1-2 hrs or 2 -3hrs in mall.

Conclusion

The study reveals that the consumers in the shopping mall are not serious buyers; generally they come twice a month for fun & entertainment, food & beverages and usually shop for the consumer durables. Mostly youth and middle age people, having either dual or multi-income source with the monthly income of more than 25K are the main shoppers in the shopping malls of Patna and spend about Rs. 500to Rs. 2000 per visit.

The organized shopping is getting acceptance in the market and people are moving towards mall shopping with their own liking and with the liking of peer groups as well due to the ambience, discount offers and the wide varieties of products available in individual sections.

Mall shopping is the future in the small cities as the attraction towards mall is increasing day by day and it is believed that with more of personalized touch and offers the mall shopping can be easily positioned in the mind of consumers.

It can be analyzed from the retailers and consumers responses towards mall shopping that the attraction towards mall shopping is at naïve stage. The mania towards shopping is the outcome of recent development and upcoming of new malls in Patna. Therefore, to affect the both the consumers as well retailers, it will definitely take some more time. In order to tap the situation and popularize the concept of mall shopping, it is recommended that the retailers are;

- To come up with activities and offers at Malls.
- To provide personalized services to

customers.

- To have products in affordable range for Patna Market.
- To provide feel good factor or at home feeling to the customer to ease customers' shopping.
- To hire store manager who are able to do the perceptual mapping with the customer to close the sale.
- To get better communication with the consumers in order to do clear perceptual mapping with consumers.

At the end, it can be concluded that the main magnetism of mall shopping is not the need for shopping but it is the craze of going shopping malls to feel delighted.

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Diagnostic Study of Handloom Cluster in Jharkhand

Priya Srivastava[1]

Handloom is a labour intensive cottage industry sector, which provides employment to weavers with minimum investment. This sector provides employment opportunities to vast sections of the society, which mainly comprises of the weaker sections, the minorities and the women. It represents the continuity of the age-old Indian heritage of hand weaving. This sector is highly decentralized and dispersed and handloom weavers can be found in over 400 clusters across the country. Although it employs large number of people, the handloom sector is considered a sunset industry and there is an air of inevitability given the relentless march of mechanization, modernization and sophistication. Still, there are many advocates of handloom for reasons like, ideology, philosophy, sheer love for handloom products and economic reasons. However, irrespective of the policies, projects and aspirations arising out of various quarters, the handloom sector is undergoing changes that are adversely impacting the livelihoods of handloom weavers. The broad objective of this study is to make an in-depth assessment of the various problems faced by the handloom clusters in Jharkhand and suggest relevant measures to overcome the same.

Key Words: *socio-economic, cluster, handlooms*

Introduction:

Handloom sector faces extensive cost disadvantages as compared to mills and power looms due to its manual nature of production. Today power looms dominate textile production in India and have encroached upon the traditional market of the handloom sector. If many handloom weavers do not have enough raw materials, it is probably because the raw materials are being diverted to the power looms. Steep rise in cotton yarn prices without a corresponding increase in handloom products prices has meant that production in several places had to be suspended, destroying the livelihoods of handloom weavers and the laying off handloom wage workers. Handlooms have an umbilical linkage with cotton farmers and the rural farm economy. Agricultural labour gets employment in handloom sector during the non-agricultural season. The sector has self-sustaining mechanism, including training for young weavers, irrespective of gender differences. The inheritance of skills, resources and capacities has remained beyond the realm and reach of any modern training and educational institution. The sustaining of the weaving skill itself has not been dependent on the Government or any modern formal institution. There is also inherent flexibility for all types of communities to take up handloom production as a profession.

By some estimates, there are 32 other sectors that are benefiting from the handloom sector, including, transportation, financial services, marketing services, service & maintenance services and hotels. Many handloom centers are well known tourist spots, drawing visitors from far places of India and also the foreign countries. Thus, the tourism industry's fortunes are also, in part, influenced by the handloom sector and its fame. In fact, the handloom sector has an edge over the power loom and mill sector in its ability to commercially produce the goods in small volumes, openness to innovation, quick to switch over to new designs, adoptability to suppliers requirements and creation of exquisite designs. It has also the comparative advantage in terms of availability of skill base across the country, abundance of local raw materials and labour intensity. Yet this sector has not been able to fully harness its potential.

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The Government has in the recent past, introduced a number of schemes aimed both at the welfare of the weavers involved in this sector, as well as, for strengthening the various associated components, such as, quality & prices of raw materials, development of marketing channels, infrastructural investments, improvement & patenting of designs, etc. Some of the major schemes introduced by the Government for strengthening the handloom sector in the country are enumerated below —

(i) Development Schemes

1. Deen Dayal Hathkargha Protsahan Yojana (DDHYP)
2. Integrated Handloom Training Project (IHTP)

(ii) Marketing Schemes

1. Handloom Export Scheme (HES)
2. Marketing Promotion Program (MPP)

(iii) Input Related Schemes

1. Mill Gate Price Scheme

(iv) Welfare Schemes

1. Work shed-cum-Housing Scheme (WCH)
2. Weavers' Welfare Scheme, including – (a) Thrift Fund Scheme (TFS); (b) New Insurance Scheme for Handloom Weavers.

(v) Scheme for Central Assistance to State Governments

1. Setting up of Enforcement Machinery.

(vi) Other Schemes

1. Integrated Handloom Cluster Development Program
2. Mahatama Gandhi Bunkar Bima Yojana (MGBBY).
3. Health Insurance Scheme (HIS)
4. Handloom Mark Scheme

2. Integrated Handloom Cluster Development Program:

In the face of growing competitiveness in the textile industry both in the national and international markets and the free trade opportunities emerging in the post MFA environment, a growing need has been felt for adopting a focused yet flexible and holistic approach in the sector to facilitate handloom weavers to meet the challenges of the globalized environment. Need has also been felt to empower weavers to chart out a sustainable path for growth and diversification in line with the emerging market trends.

The Integrated Handloom Cluster Development Program is an attempt to facilitate the sustainable development of handloom weavers located in identified clusters into a cohesive, self managing and competitive socio-economic unit. The Office of the Development Commissioner (Handlooms) is the nodal agency for the implementation of the Integrated Handloom Cluster Development Program.

The main objectives of this scheme are as follows

1. To empower handloom weavers and build their capacities to meet the challenges of the market and global competition in a sustainable and self reliant manner;
2. To facilitate collectivization of handloom weavers and service providers for procurement, production, marketing and other support activities to promote sustainable growth and diversification;
3. To provide for common infrastructure and activities in a viable format in the cluster;
4. To provide for development of handloom clusters in an inclusive and holistic manner in an environment of empowered and participative decision making; and
5. To encourage convergence of schematic assistance and support services from various schemes and programs of various Government and other agencies in the cluster to optimize resource utilization for betterment of the livelihood and quality of life of handloom weavers.

As part of the scheme, it is proposed to take up an initial batch of twenty handloom clusters. These clusters would be such where there is a large concentration of handlooms, producing fabrics of niche varieties on handlooms which are in demand in the market.

In its efforts to strengthen and improve the efficacy of the delivery mechanism of the scheme, it is now proposed to initiate a grassroot level study by the Office of the Development Commissioner (Handlooms), wherein the emphasis would be on understanding the problems afflicting these clusters. In doing so, we had taken initiative to undertake a Diagnostic Study in the Handloom Cluster of Irba-Chuti in district Ranchi of Jharkhand.

3. Scope, Objectives and Methodology

Scope:

The study is confined to the handloom clusters in Jharkhand. There are a total of 162 registered Primary Weaver's Cooperative Societies in Jharkhand, with majority of them being located in 5 districts, namely, Ranchi (55), Godda (29), Dumka (17), Hazaribagh (17) and Palamu (16).

Amongst these 162 Primary Weaver's Cooperative Societies in Jharkhand, only 50-55 Primary Societies are currently functional. The remaining have ceased to function due to one reason or another.

Table 3.1

District	Yarn	Final Products Produced
Ranchi	Cotton	Traditional Indian dress materials like, lungi, dhoti, gamchha, towel
Jamtara	Cotton	Traditional Indian dress materials like, lungi, dhoti, gamchha, towel
Seraikela	Silk	Shirtings, dress Materials
Pakur	Silk	Sari

There are a total 11,167 handlooms in Jharkhand in which variety of handloom products are prepared. Some of the prominent places where presently handloom products are prepared, with their areas of specialization is presented in Table 3.1

Objectives:

The specific objectives of the study are as enumerated below —

1. To study and delineate the current socio-economic status of the handloom cluster;
2. To understand the entire production process in the selected cluster;
3. To estimate the numbers of handlooms in the cluster;4. To study the available infrastructure in the cluster. This would include — raw material procurement, availability of dyeing facilities, product mix, kind of marketing linkages available, etc;
5. To study the benefits that might have accrued to the cluster due to various schemes related to the handloom sector;
6. To assess the problems that may be adversely affecting the handloom cluster; and
7. To assess the financial assistance that would be needed for the overall development of the cluster.

Methodology:
(A)Approach

In order to conduct this diagnostic study, it was imperative to get feedbacks from the various stakeholders involved with the Project at different levels. For the qualitative assessment of the issue, we collected data through in-depth interviews and focused group discussions using a semi-structured questionnaire.

To reach at a qualitative result detailed discussions with various people were conducted who were closely linked with this sector. We also visited the office of the Primary Weavers Cooperative Society, Irba-Chuti, in Chuti village and conducted in-depth interview of Chairman, of this Society. We also conducted a focused group discussion of the weavers associated with the Primary Weaver's Cooperative Society, to assess their condition, views, constraints and aspirations.

(B)Research Instruments Used

It was a descriptive type research study. A semi-structured questionnaire was prepared for conducting the indepth interviews of various functionaries.

4. Details of Handloom Clusters in Jharkhand

a) Handloom Weaver's Cooperative Society

The Chotanagpur Regional Handloom Weaver's Cooperative Union Ltd: It is the nodal agency for all the Primary Weaver's Cooperative Societies in the State. This Regional Cooperative Union is located in Irba village in block Ormanjhi in district Ranchi. This Coopeartive Union was established on 24.12.1989.

The Executive Committee of the Regional Cooperative Union has 15 members. The Chairman of the Regional Cooperative Union is elected for tenure of 3 years by the chairmen of all the Primary Weaver's Cooperative Societies under the Regional Cooperative Union.

There is a post for a representative of the State Cooperative Bank. Since there is no State Cooperative Bank in Jharkhand, this position is vacant. An officer of the rank of Joint Registrar of the Jharkhand Cooperative Services, Government of Jharkhand is a member of the executive committee. An officer of the rank of Deputy Registrar of the Jharkhand Cooperative Services, Government of Jharkhand is the Chief Executive Officer of the Regional Cooperative Union. He is also the Member Secretary of the Union.

Apart from these, there are 11 elected members of the executive committee who are chairmen of the Primary Weaver's Cooperative Societies. The Chairmen of all the Primary Weaver's Cooperative Societies under the Regional Cooperative Union elect these 11 members to the Union.

b) Primary Weaver's Cooperative Society

Earlier there were a total of 99 Primary Weaver's Cooperative Societies under the Regional Cooperative Union. However, over the period of time, many became dysfunctional. At present, only around 55 Primary Weaver's Cooperative Societies are functional.

The remaining has ceased to function due to one constraint or another.

One of the Primary Weaver's Cooperative Societies is the Irba-Chuti Primary Weaver's Cooperative Societies, the diagnostic study of which is the mandate of this study.

The Irba-Chuti Cluster

The Irba-Chuti Cluster is located in village Chuti in block Kanke of district Ranchi, at a distance of around 15 Kms. from the capital city of Ranchi. The village is connected to the block headquarters as well as Ranchi city by metal road and is situated on the main road connecting Ranchi city to block Ormanjhi. Chuti village comprises of three tolas — Bada Chuti, Paar Chuti and Sindwar Chuti.

Taking all the three tolas of the village together, there are around 450 households in the cluster area. Around two-thirds of these households belong to the Muslim community who has traditionally been weavers for generations. The remaining households in the cluster belong to the Scheduled Castes, Scheduled Tribes and Other Backward Castes. The average family size in the cluster is 6-7 members per family.

The primary occupation of the people is agriculture and the major crops sown in the area are paddy, madua, maize, urad and arhar. Variety of vegetables is also sown in the area. Only the Muslim community households are involved in handloom weaving. The non-Muslim households are not at all involved in weaving. The literacy level is very poor in the area. The literacy level amongst the weaver families is lower than non-Muslim families. However, the children of both Muslim and non-Muslim households of the area go to school for education

d) Primary Weaver's Cooperative Society, Chuti

The Primary Weaver's Cooperative Society, Chuti was established on 13.06.1952. Today, there are 102 members of this Society. The executive committee of the Society has 15 elected members. The Chairman and the executive

committee members are elected for a tenure of 3 years by the members of the Society. One of the executive committee members is designated as the Paid Member of the Society whose prime responsibility is to maintain the books of account and other records of the Society. Anybody from Chuti village can become a member of the Society by paying an entry fee of Rs. 5/- and a sum of Rs. 100/- which is the share holding price for lifetime to become a member of the Society.

At the time of formation of the Society, there was a loom in almost all the households of the village. In fact, it was reported by the Chairman of the Society that at that time, to become a member of the Society, it was imperative to have a loom in the household. Now, hardly 40 households have a loom in their house and even these households do not weave on their household looms.

Status of Basic Amenities in the Primary Society

The Primary Society, Chuti is housed in a semi-pucca building. The walls are made of bricks and cement, while the roof is of asbestos sheets. The floor is of mud. There is proper ventilation facility and sunlight for the weavers in the building. The hall where the looms, bobbin machine and other equipments are installed is of 25 feet x 60 feet size. There are two separate rooms each of 12 feet x 10 feet size for keeping the stock of finished goods and a small varandah where 2-3 Charkhas can be worked on.
There is sufficient open space for preparing drums. There is a well in the compound of the building which also has a water pump. The pump is used to draw water from the well which is used for processing the yarn. Sufficient space is also available in the building campus for dyeing and drying of yarn.

The dyeing process is not taken up on a large scale in the Society. Traditional dyeing is practiced for dyeing the yarns. The building haselectricity connection and an adequate arrangement for light is there for weavers to work in the night time as well.

Looms & Machineries

In the Primary Weaver's Cooperative Society, Chuti, there are a total of 13 looms, 1 bobbin machine, 5 Charkhas and 1 Krill machine. Earlier, all the 13 looms were used for weaving purposes but now due to reduced work in comparison to earlier times, only 5 looms are used in the Society. The remaining is lying unutilized. The total equipments and machineries that are available in the Primary Weaver's Cooperative Society, Chuti is presented below.

Employment Status

In the Primary Weaver's Cooperative Society, Chuti, there are a total of 102 members, all of whom belong to the village Chuti. There are no regular employees in the Society. All the members are eligible to work on the looms of the Society. Non- members are not permitted to work on the looms of the Society.

Availability of Trained Manpower

Weaving has been the traditional occupation of the residents of the Cluster for several generations. Although, gradually the families have dissociated themselves from this occupation, trained manpower is still available in the Cluster.

Salaries & Wages

As there are no regular employees of the Society, there is no salaried person attached with the Society. Wage rates have been fixed by the Society for weaving on per piece or on length of weaving basis. The weavers are job workers who receive the yarn and the design and hand over the woven products to the Society and receive wages.

The average number of working days for a weaver on the looms is only around 90-100 days in a year. There was a time when all the adult members of the Cluster were engaged in weaving activities. In fact each household had a loom in their house. But due to the dwindling market for the handloom products, high degree of uncertainty of job works and lack of adequate institutional support, large number of families whose erstwhile primary occupation was weaving have now turned towards agriculture or even as wage labours.

A wage rate for weaving of each type of product has been fixed by the Society. The wage rates were last revised in 2003-04. The current wage rates of the Society are presented below in Table 4.1

Table 4.1

Classification	Size	Wage Rate (in Rs.)	Average Capacity of 1 Weaver in 1 Day
Bed Sheet	60 Inches X 90 Inches	15/- per piece	8 pieces
Bed Sheet	70 Inches X 100 Inches	20/- per piece	6 pieces
Bed Sheet	90 Inches X 108 Inches	30/- per piece	5 pieces
Bed Cloth	54 Inches X 110 Inches	18/- per piece	6 pieces
Shawl	2.5 Mt. X 36 Inches	10/- per piece	5-7 pieces
Gamchha	2 Mt. X 1Mt.	8/- per piece	12-15 pieces
Towel	2 Mt. X 1Mt.	8/- per piece	12-15 pieces
Shirtings	(thin yarn)	8/- per meter	10-15 meters
Shirtings	(thick yarn)	6/- per meter	20-25 meters
Sari	4.5 Mt. X 36 Inches	20/- per piece	5-6 pieces

Raw Materials

The primary raw material that is used is cotton yarn. After 1996-97, the activities of the Regional Cooperative Union declined steadily and so did the fortunes of the Primary Societies attached with it. The demand of handloom items also dwindled in the market. The problem was further aggravated by poor marketing and distribution capacity of the finished products of the Primary Societies.

Earlier, there were some yarn suppliers in Ranchi. However, the raw material market in the local Ranchi market also gradually dried up and now, the Societies mostly procure the yarns from suppliers from Calcutta.

Mostly the yarn that is used in the looms is 2x17, 2x40, 17nf, 10s, 20s, 26s, and 40s. Presently, yarns of 2x17, 2x40, 17nf and 14s are being used by the Society. All these are being purchased from Calcutta. The average price of these yarns that the Society pays to the suppliers is presented in Table 4.2

Table 4.2

Yarn Type	Cost per Bundle (in Rs.)	Weight per Bundle
2X17	Rs. 475/-	5 Kg.
2X40	Rs. 570/-	4.5 Kg.
17nf	Rs. 425/-	5 Kg.
14s	Rs. 375/-	5 Kg.

Designs & Patterns

Traditional designs and patterns which have been produced over the years are still being used here by the weavers. The weavers are trained in weaving new designs and patterns by the Master Trainers from Bhagalpur in the past. Many weavers of the Society have learnt the art of preparing materials with new designs and patterns.

However, due to low level of activity in the Society and limited job works, the new designs and patterns are hardly put to use. Nevertheless, there is a need for constant improvement in the existing designs and the development of new designs both for weaving and printing purpose. Efforts need to be made to preserve the traditional designs by reviving & adopting them in the forms & colour schemes as per the changing tastes of the consumers and modern designs with new colour combinations.

Product Mix

In the Primary Cooperative Society, Chuti, traditional Indian apparels are made which are daily use items, including bed sheets of various sizes, shawls, gamchha, towels, shirtings and saris.

Cost of Finished Products

The consolidated cost of the finished products made by the Society after incorporating all expenses (including cost of yarn, transportation, processing, weaving charges, etc.) is presented below in Table 4.3

Table 4.3

Classification	Size	Cost of Production (in Rs.)
Bed Sheet	60 Inches X 90 Inches	75/- per piece
Bed Sheet	70 Inches X 100 Inches	100/- per piece
Bed Sheet	90 Inches X 108 Inches	150/- per piece
Bed Cloth	54 Inches X 110 Inches	65/- per piece
Shawl	2.5 Mt. X 36 Inches	60/- per piece
Gamchha	2 Mt. X 1Mt.	30/- per piece
Towel	2 Mt. X 1Mt.	30/- per piece
Shirtings	(thin yarn)	24/- per meter
Shirtings	(thick yarn)	20/- per meter
Sari	4.5 Mt. X 36 Inches	70/- per piece

Availability of Markets for Finished Products

Till 1996-97, in the Regional Cooperative Union, there were 7 mobile vans (mini-bus), which were used as shops on wheels by the Regional Cooperative Union at various locations. These vans were also used to transport the finished goods to their destinations. However, lately due to reduced activity of the Union, now only 3 mobile vans were being used. The remaining have been sold out by the Regional Cooperative Union.

Earlier there were a total of 33 retail outlets across the State, which reduced to 24 in 1997, from where the finished goods were marketed. Now, there is only 1 retails outlet (in Ranchi), for the products of the Regional Cooperative Union. Now, the finished goods of the Primary Cooperative Society are partly sold in the roadside shops/footpaths by the persons of Chuti village deputed by the Society. Occasionally, the finished products are also sold door to door from one locality to another in Ranchi with the help of bicycles.

Financial Resources

Earlier, since majority of the yarn was provided by the Regional Cooperative Union, there was not much problem of finance for the Primary Cooperative Societies. The payments were also released by the Regional Union within 15-30 days of the delivery of the finished products by the Primary Societies to the Regional Union. However, with the lowering of the scale of activities of the Regional Union, the Primary Societies have to procure raw materials (yarns) for self production. The yarns that are purchased from Calcutta are procured on payment of 50 percent advance money to the supplier. Since there is no cooperative bank in Jharkhand, the sources of funding are also limited for the Primary Societies.

Turnover & Profits

The turnover of the Primary Cooperative Society, Chuti in the last four has increased from Rs. 18.19 Lakhs to 32.64 Lakhs. Year-Wise Turnover figures for the 4 years, is presented alongside.

The gross profit and the net profit earned by the Primary Cooperative Society, Chuti in the four years in presented in Table 4.4

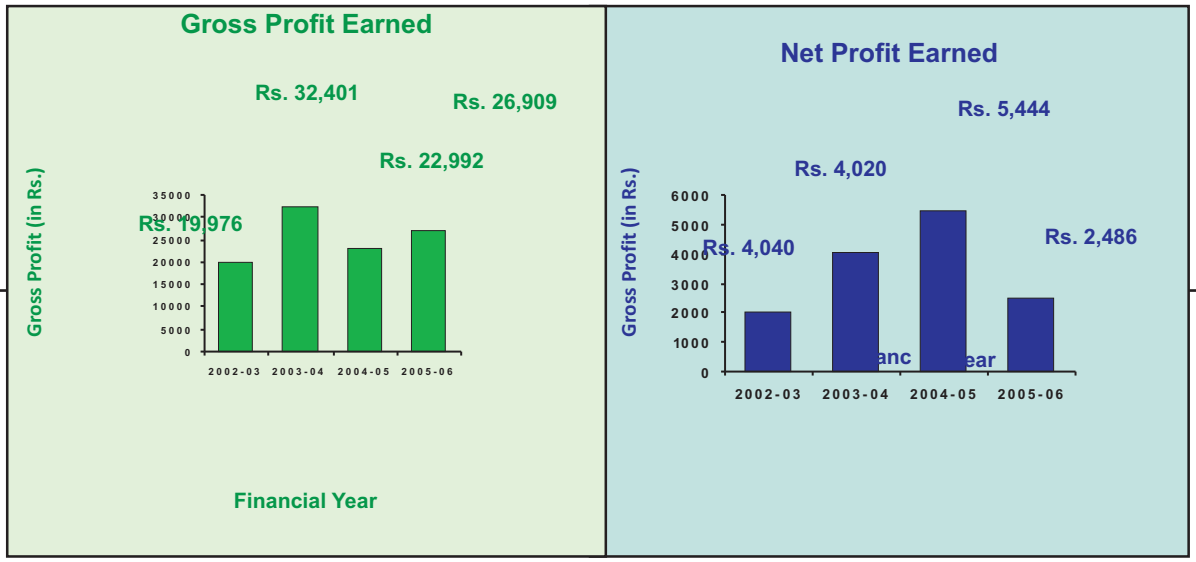
Table 4.4

Financial Year	Turnover
2002-03	Rs. 1819227/-
2003-04	Rs. 2261853/-
2004-05	Rs. 2108209/-
2005-06	Rs. 3264274/-

Competition in the Sector

The handloom sector has been facing stiff competition from the power loom sector. To keep pace with the changing fashions/trends, it is necessary for the handloom sector to revive its technique/technology. Keeping this in view, the weavers need to be equipped with techniques like the computer aided textile designing, so that the handloom sector could compete with the power loom sector in the areas of weaving as well as designing.

Graph 4.1



It is also essential to popularize the designs developed for the handloom sector through periodical display-cum-exhibition of the designs and samples being produced by this sector. Also, to be able to compete with their rivals, the skills of the weavers need to be upgraded to enable them to switch over from low value added to high value added products.

Support Mechanism

The Jharkhand Government in the State Industrial Policy has pledged to undertake measures to facilitate assistance to the handloom sector in the State. Marketing of products has been recognized as the weakest link for this sector particularly those in the rural areas. The policy of the State Government is to ensure that State Government departments and various agencies under its control would purchase their requirement of store items from this sector. In order to achieve this, the product of industries located within the State will be eligible for the facilities of preferential purchase by State Government departments and the agencies under its control.

Various departments of the State Government and the various agencies under its control would ensure, without compromising the quality, that minimum 75 percent of the total order placed with respect to any such tendered item be supplied exclusively by the manufacturing industrial units located within the State. It would also be ensured that 33 percent of the total annual purchase by any department/agency should be exclusively supplied by the manufacturing small scale industrial units located within the State.

In order to provide the price preference facilities, with respect to certain identified item(s) being manufactured by the small scale industries located within the State, with the objective of providing competitiveness to such items (s), a high level committee would be constituted by the State Government, which shall duly assess the competitiveness of such items as referred and make recommendations. The Central Government, its various agencies and private/joint sector industries located within the State will be persuaded to accord similar facilities to the products of local industries. New industrial units coming up in the State will be persuaded to patronize local industries/firms for construction/supply of materials.

Local small scale industrial units registered with DIC/IADA shall have to deposit only 50 percent of the earnest money while submitting tenders with the State Government departments and various agencies under its control. The problem of delayed payment to small scale industrial units by the Government department s/corporations /boards or large industrial undertakings creates severe financial constraints to these units. To tackle this problem, the State Government would constitute an "Industrial Facilitation Council" at Ranchi as per the provisions of the "Interest on Delayed Payments to Small Scale and Ancillary

Industrial Undertaking Act, 1993".
The State Government would additionally take the following initiatives:

1. Develop a strong data base to provide trade and export related information.
2. Purchase of ISO/ISI certified products would be given preference.
3. The Government will assist NGOs and other such agencies, which facilitate marketing of products in rural areas.
4. Organize buyer sellers meet involving public sector/private sector enterprises.
5. Organize trade fairs/melas for marketing assistance inside and outside the country.
6. Encourage e-commerce in the rural areas.

The raw material generating units shall be persuaded to give purchase preference to the local industries for supply of such raw material, whose production is dependent upon the supply of such raw materials. Similarly, the public sector/private sector large industries, located within the State would be persuaded to give purchase preference to the products of the local industries while making purchases of raw materials and other items required by it.

Value Chain Analysis

As per the value chain analysis of the Primary Weaver's Cooperative Society, Chuti, the weavers are heavily dependent on the Regional Cooperative Union at all stages of production. The Regional Cooperative Union has been the major supplier of raw material, buyer of most of the finished products, marketing agent for the Primary Society and the biggest and the most reliable payer of the sale proceeds.Although, there is an alternative source for procuring the raw materials (open market), but due to isolation of the handloom sector from the mainstream activities of entrepreneurship (regular and bulk demand of raw materials, outdated designs and patterns, change in the priorities of the consumers, poor marketing strategies, lack of display outlets), the local traders of Ranchi have also restricted their activities in the sector. This resulted in extremely reduced supply of yarns locally. The weavers do not get choice of quality and variety in the yarn they buy and their bargaining capacity is also limited. The nearest destination is the suppliers of Calcutta, who is located around 500 Km. away from the loom site. It is not feasible for the located around 500 Km. away from the loom site. It is not feasible for the weavers to frequently visit Calcutta for procuring yarn of their choice because of obvious reasons their business do not support frequent travelling expenses. Moreover, due to being in the unorganized sector, their buying capacity in term of quantity is also limited. Consequently, all they do is book their orders with the suppliers in Calcutta on telephone, who dispatches the yarns through road transport agencies to Ranchi. The transportation cost adds on to the production cost of the finished products.

Once the yarn reaches the Primary Weaver's Cooperative Society, all the processing is done inhouse (caring, dyeing, starching and weaving). If the work order is given by the Regional Cooperative Union, the yarn is purchased by the Regional Cooperative Union and the Primary Weaver's Cooperative Society collects the yarn from the Union's stores which is located around 2 Km. from the loom site. If the production is done for the Regional Cooperative Union, the finished products are prepared as per the specifications given by them (shape, size, pattern). The Regional Cooperative Union pays the Primary Weaver's Cooperative Society on the basis of number of pieces of finished products prepared. The rate for each type of product is fixed as mentioned above. Over and above this payment, the Regional Union also pays the Primary Weaver's Cooperative Society an additional 5 percent of the total payable amount for compensating the operating loss incurred while processing the yarn to prepare the finished products.

If the Primary Weaver's Cooperative Society buys the yarn from the open market to produce traditional household items, the finished products are sold door to door from one locality to another in Ranchi with the help of bicycle or through makeshift roadside shops.

5. Diagnosis of the Situation

There are a total of 162 registered Primary Weaver's Cooperative Societies in Jharkhand. Amongst these, only 55 Primary Societies are currently functional. The remaining has ceased to

function due to one constraint or another. At the time of the formation of the Primary Weaver's Cooperative Society in Chuti, there was a loom in almost all the households of the village. In fact, to become a member of the Society, it was imperative to have a loom in the household.

Weaving has been the traditional occupation of the residents of the Cluster for several generations. Although, gradually the families have dissociated themselves from this occupation, trained manpower is still available in the Cluster. There was no paucity of trained manpower that could work on the looms or undertake other activities related to weaving. Nevertheless, today hardly any household is solely dependent on weaving.

The average working days for a weaver on the looms are only around 90-100 days in a year. There was a time when all the adult members of the Cluster were engaged in weaving activities. In fact each household had a loom in their house. But due to the dwindling market for the handloom products, high degree of uncertainty and lack of adequate support, large number of erstwhile families whose primary occupation was weaving are now turning towards agriculture or even wage labours.

The primary raw material that is used is cotton yarn. Till around 1996-97, the Society received almost all their requirement of yarn from the Regional Cooperative Union. In any case, the Primary Society, Chuti, was then working mostly for the Regional Cooperative Union, which procured the orders, purchased the yarns as per the specifications and provided it to the Primary Societies.

After 1996-97, the activities of the Regional Cooperative Union declined rapidly. The demand of handloom items also dwindled in the market. The problem was further aggravated by poor marketing and distribution facilities of the finished products of the Primary Societies. Earlier, there were some yarn suppliers in Ranchi. However, the raw material market in the local Ranchi market also gradually dried up and now, the Societies procure the yarns from suppliers from Calcutta.

Traditional designs and patterns which have been produced over the years are still being used here by the weavers. There is a need for constant improvement in the existing designs and the development of new designs both for weaving and printing purpose. Efforts need to be made to preserve the traditional designs by reviving and adopting them in the forms and colour schemes as required by the market of the day. Keeping the changing tastes of the consumers, modern designs with new colour combinations of the designs are the need of the time.

It is also essential to popularize the designs developed for the handloom sector through periodical display-cum-exhibition of the designs and samples being produced by this sector. Also, to be able to compete with their rivals, the skills of the weavers need to be upgraded to enable them to switch over from low value added to high value dded products. The handloom weavers do not have enough raw materials and the steep rise in cotton yarn prices without a corresponding increase in handloom product prices has resulted in reduced production. It has resulted in the disappearance of their traditional livelihood due to laying off handloom wage workers.
Till 1996-97, in the Regional Cooperative Union, there were 7 mobile vans (mini-bus), which were used as shops on wheels by the Regional Cooperative Union at various locations. However, lately due to reduced activity of the Union, now only 3 mobile vans were being used. The remaining have been sold out by the Regional Cooperative Union.

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However, with the lowering of the scale of activity of the Regional Union, the Primary Societies have to procure raw materials (yarns) for self production. The yarns that were purchased from Calcutta are procured on payment of 50 percent advance money to the supplier. Since there is no cooperative bank in Jharkhand, the sources of funding are also limited for the Primary Societies.

The handloom sector today requires institutional support for modernization of production, steady and regular supply of inputs like yarn, dyes and chemicals at reasonable prices, training in design and innovative patterns of weaving. There is also a need to empower weavers to chart out a sustainable path for growth and diversification in line with emerging market trends.
The Jharkhand Government under the State Industrial Policy has pledged to take measures to facilitate assistance to the handloom sector in the State. However, anything concrete is yet to be done by the State Government. The handloom sector in the State has not received any financial assistance or subsidy from the Central Government for the last decade.

The handloom sector has an edge over the power loom and mill sector in its ability to commercially produce the goods in small volumes, openness to innovation, quick to switch over to new designs, adoptability to suppliers requirements and creation of exquisite designs. It has also the comparative advantage in terms of availability of skill base across the country, abundance of local raw materials and labour intensity.

SWOT Analysis

(A)Strengths

1. People of the Cluster have entrepreneurial temperament.
2. There is no dearth of skilled manpower who have traditionally been weavers for generations.
3. The Cluster is located very near (within 15 Km.) to the capital city of Ranchi and well connected with metalled road.
4. There is proximity and accessibility to banks.
5. The village is electrified.

(B)Weaknesses

1. Problem in availability of yarn locally
2. No choice of yarn available
3. Traditional looms made of wood have become obsolete because they get damaged by termites and thus do not have a long life. Also, their use requires more effort and thus, the speed of weaving is also adversely affected.
4. Low level of modernization and up gradation of technology
5. Non adoption of innovative designs with changing market expectations
6. No weaver training institute in the State
7. Insufficient working capital
8. Lack of market information and knowledge
9. Inadequate attempt to produce value added products
10. Lack of marketing skills in the Cluster to market the finished goods
11. Non cooperative attitude of Government functionaries
12. Non cooperative attitude of potential clients (Government & non-Governmental)

(C)Opportunities

1. No dearth of demand
2. Availability of cheap and local manpower
3. Availability of traditionally skilled labours
4. Extensive scope for diversification of products
5. Scope for improvement in product design
6. Scope for trainings and skill up-gradation
7. Capacity to produce quality products

(D)Threats

1. No dearth of demand
2. Availability of cheap and local manpower
3. Availability of traditionally skilled labours
4. Extensive scope for diversification of products
5. Scope for improvement in product design
6. Scope for trainings and skill up-gradation
7. Capacity to produce quality products

(D)Threats

1. Lack of institutional linkages
2. Decline in the profit margin due non-availability of raw materials locally
3. Manufacturing process is labour intensive
4. No regular work for weavers
5. Absence of private public partnership in the State to promote research & development
6. Non-up gradation of process technology may affect sustainability
7. The market is becoming increasingly particular about their choice
8. Increased competition from power looms
9. Increased competition from synthetic cloth materials

6. Conclusion and Recommendation

On the basis of diagnostic analysis as mentioned above, the following plan of action is recommended:

(A) Reviving the Regional Cooperative Union

The Regional Cooperative Union needs to be revived. It is the nodal agency which is approachable to the Primary Weavers' Cooperative Societies and is comparatively better equipped to handle all the business processes on behalf of the Primary Societies, including procuring work orders, raw materials, organizing trade fairs, conducting trainings on skill development and application of new designs and patterns, undertaking promotional and marketing functions.

(B) Assured Markets for the Finished Products

The State Industrial Policy outlines that the Central Government, the State Government its various agencies and private/joint sector industries located within the State will be persuaded to purchase products from the handloom sector. Since persuasions have not yielded any results, the State and the Central Government should fix a quota for the various Government Departments (hospitals, schools, tourism, state owned hotels & tourist bungalows, etc.), which should be mandatory for them to purchase handloom products from the Regional Cooperative Union.

(C) Organizing Regular Trade Fairs Locally for the Finished Products

Regular trade fairs (quarterly or even monthly) of the finished products should be organized at different locations in the State. This would provide exposure and publicity to the handloom products as well as create awareness and interest amongst the prospective buyers about the products. Such fairs would provide opportunities to the organizers to explore and develop regular market for their products.

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Inventory Model for Items with Imperfect Quality and Screening at Vendor Site

Abhay Kumar Sinha[1]

During production, items produced cannot be of perfect quality and some items produced may be defective due to imperfect production. Identification of defective items at early stage and their efficient management is very important to reduce overall loss. Through this paper various ways to dispose defective items have been discussed and a model has been proposedfor screening of defective item from a lot of items at the vendor site in a single-vendor single-buyer situation for a single product. It is also assumed that the screening process itself is not perfect due to human errors.

Key Words: Imperfect Quality, Imperfect Screening, Single Vendor, Single buyer, Single product

Introduction

Defective items at production stages of a supply chain directly impact the coordination of the product flow within its supply chain. In response to this concern, production and inventory lot sizing models, which incorporate imperfect items into their formulation of models, have become an important and growing area of research. Items are being produced by the producer in a batch as per market demands and orders. The quality of the production could not be of a perfect quality, so each batch contains some defective items in it. The vender sends items produced to the consumer through its dealers(buyer) as soon as the lot size become equals to the Economical Lot Size determined by a Supply Chain Inventory Models. The dealer starts screening of the items as soon as it arrives. The dealer can have different types of screening.

Salameh and Jaber (2000) first gave Economic Order Quantity (EOQ) model. As per their paper assumptions used for economic order quantity (EOQ) models needs to be justified. They gave emphasis to include more factors that contribute to the cost of the inventory. They had given a situation where an item is of imperfect quality; not necessarily defective; could be used in other production/inventory where these items can be utilized. The paper extended traditional EOQ model by accounting for imperfect quality items.The paper also considers that poor-quality items could be sold as a single batch by the end of the 100% screening process.

Goyal&C´ardenas-Barr´on (2002) published a Note, whichpresented a simple approach with the optimal methodfor determining the economic production quantity for an item with imperfect quality.

Wee et al. (2007) had developed optimal inventory model as shown in figure 1 for items with imperfect quality and shortage back ordering with a view of the fact that poor-quality items do exist during the production. Defective items are filtered during the screening process and removed from the stock. It may lead to shortage of the items in the supply chain system and buyer has to wait for new the lot to arrive and to screen.

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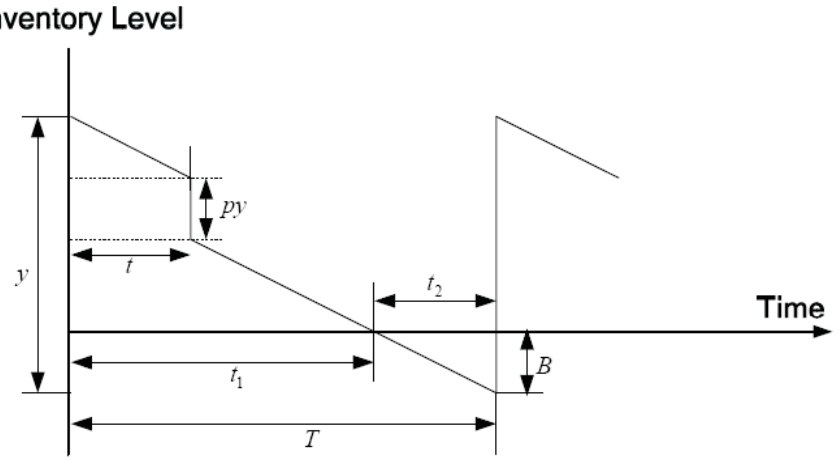
Figure. 1



Inventory system with complete backordering (Wee et al.'s (2007) model).

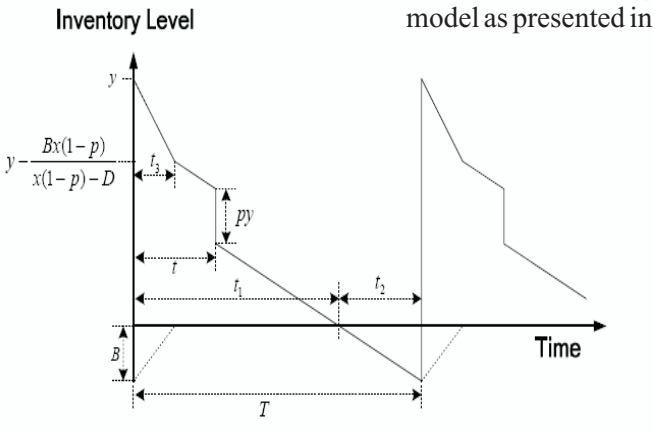
After arrival of a lot t time is required for screening process. At the end of the screening process py items found defective from y items received from the vendor and inventory level of the dealer drop by it (i.e., py). During the period t_1 the inventory meets the market demand. After the time t_1 the inventory of the item becomes zero and buyer have to wait for the arrival of new lot. There are backorder of B items during the period. When the new lot arrives the backorder of B items will be clear.

Maddah&Jaber (2008) rectified Economic Order Quantity (EOQ) Model of Salameh and Jaber (2000) with unreliable supply. They extended the model by allowing for several batches of imperfect quality items to be consolidated and shipped in one lot.

Wahab and Jaber (2010) presented the optimal lot sizes for an item with imperfect quality based on Salameh and Jaber (2000),Maddah and Jaber(2008), and Jaber et al. (2008)where different holding costs for the good and defective items are considered. They showed that learning in the system could reduce the differences between the lot sizes with and without different holding costs for the good and defective items.

Hus & Hus (2012) worked on the model proposed by Wee et. al. (2007). They pointed out contradictions between Wee et. al. (2007) model and assumptions used in the model. In Wee et. al. model backorder of B items are cleared as soon as the lot of new items arrived. They did not consider the time needed to screen B items before clearing them. Hus & Hus ((2012)developed a corrected model as presented in figure 2

Figure. 2



Behavior of the inventory level over time for the corrected model

The model shows that t_3 time is required to clear backorder. During this period the market demand and backorder are cleared and is equal to the screening rate of items. The slop of the above figure during the period represent rate of screening. After this period items are sold in market as per the market demand. This slop is represented in the above figure from t_3 to t_1 and t_1 to T.

Above all models are based on assumptions that all items are being produced by vendor and supplied to its dealers. A dealer after receiving items from the vendor conduct screening test of items. Items found defective are either sent back to the vendor or sold by the dealer at lower price in the market. The purpose of this paperis to explore alternative ways to deal with defective items found during screening test.

2. Handling Defective Items Found in Screening Test

Items found defective in the screening test are not waste but have some market value. Due to production of defective items, the vendor has to incur some loss. Selection of an appropriate alternative for disposal of defective items reduces the loss to the vendor. The vendor should try to explore alternatives. Following are the ways the defective items could be handled.

1) There are some defects which can be easily rectified by spending some more money on defective items. The vendor has to take decision whether he will go for rectification of items or sell them at discounted price. If the cost of the rectification of items is very less and cost of rectification plus the selling priceof defective items in market is less then selling priceof the item then vendor should go for rectification otherwise items should be sold at discounted price.

2)If the cost of rectification of the item is high or quality of items after rectification is low/unsatisfactory,then it would be better to sell the defective items at discounted price in the market.

3) Defective items which cannot be rectified and have no market value should be sold as scrap

4) Defective Items not traced during screening can be sold in the market. The user of the items finds defect and getsreplacement by fresh one. These items are returned to the vendor for disposal if it could be rectified otherwise it could be sold in the market as scrap (no market value).

3. The Model that perform screening at the vendor site

In all the above research papers screening of items are done by dealers. Defective items also contribute to the total transportation cost. Screening at vendor site not only reduces the cost of transportation, but also gives more options to deal with defective items in efficient ways.

Assumptions of the model

a. The demand rate is known, constant and continuous

b. The lead time is known and constant

c. The replenishment is instantaneous

d. Screening is performed at vendor site

e. The screening process is not perfect and there is error in screening.

f. The screening process and production proceed simultaneously

g. The defective items exist in the lot size y.

h. Single product is considered

i. Single buyer is considered

Here, a model has been proposed as given in figure-3 that performs screening at vendor site and consider that there may be errors in screening process also in single vendor and single buyer situation. The vendor produces items in a lot ($y + B_1$). The screening process starts immediately after the production at the vendor. During the screening $B_1 = py$ items found defective. p is the probability of an item to be found defective. Defective items are removed from the inventory immediately after screening and send for disposal. When screened items level reaches to the lot size y, the lot is transported to the dealer (the buyer) immediately, reducing the inventory level to zero for the vendor. Following fig shows inventory level of the vendor. One cycle completed in T time

The dealer (the buyer) receives items in lot size of y. It sells items in the market. As it has been assumed in the model, there are possibilities of screening errors in the screening process. These errors are of two types

1) Non-Defective item declared as defective items (items are with vendor)

2) Defective items declared as non-defective item.

The first error causes loss to the vendor as fresh items are being sold at discount. If

Figure-3

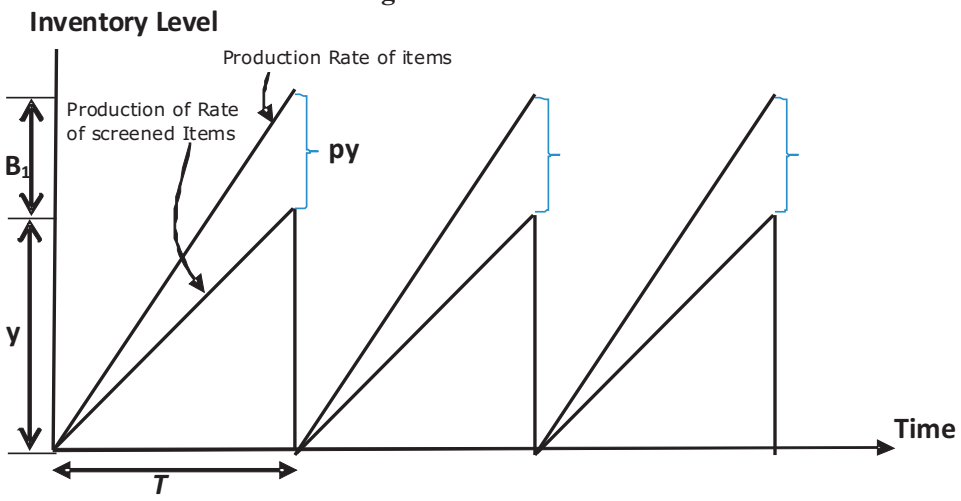
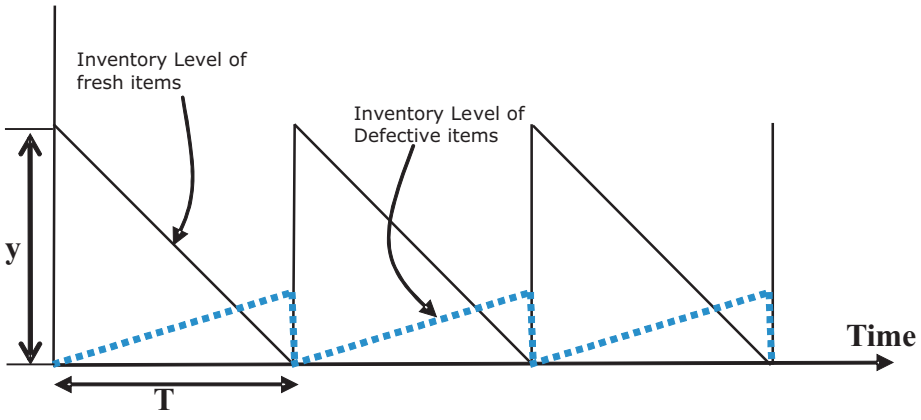


Figure-4



vendor try to rectify defective items as second screening process, it reduces this type of error and gives chance for rectification of items.Due to second type of screening error, defective items reach to the buyer and are sold in the market. User of the item finds defect and get it replaced by a non-defective one immediately from the dealer. The defective items received from the market will also be stored in the inventory of the buyer. It has been denoted by dashed line in the figure. In a cycle it becomes B_2. Thus total defective items will be $B_1 + B_2$. When new lot arrives the stock of the defective items all will be sent back to vendor for its disposal. The cycle gets repeated in the time interval T. as given in figure-4

4. Conclusion

Various options for disposal of defective items have been discussed in this paper. An outline of the inventory model which deals with defective items with imperfect production and imperfect screening at vendor site for single vendor and single buyer of single product has been given. Screening has to start with production of items and defective items found could be immediately sent for disposal. Level of the inventory will be reduced by B_1, (number of defective items found in screening) which resultsinto cost saving. Due to imperfect screening, some items still penetrate into market and their defectsare found by the consumer of the items. Consumer returns them andan inventory of these defective items are maintained at buyer site. These defective items are sent back to the vendor for disposal. A mathematical model of this model is area of further work.

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Book Review

URBANIZATION IN ASIA: Governance, Infrastructure and the Environment

P. K. Samanta*

The world's urban population is expected to account for two-third of world's total population by 2025. The level of urbanization in Asia, however, has been lower than that of the world since 1950. Across regions, Asia was the least urbanized even less than Africa during 1970-2000. In 1960, only 20.7% of Asia's population was urban versus 33.6%for the world. In 2000, 46.7% of the world's population lived in cities while only 35.5% of the population in Asia did so. In 2010, these shares of urbanization moved to 52% and 43% respectively. In India, the share of urban population in the total population is estimated to increase from 28% in 2001 to nearly 50% by 2020. Currently, while urban population constitute less than one-third of the country's total population, urban areas contribute to half of India's GDP; reflecting their importance in achieving regional and national growth targets.

The book contains 15 chapters contributed by academicians and practitioners and it focuses on urban governance in the developing world; its aim being to bring a holistic perspective to the debate on urban governance not only in Asia and but also around the globe. The discussion in the book has been divided into three sections. The first section deals with rural interventions – which influence urbanization – and provides solutions to some of the existing and emerging issues. The second section focuses on urban governance, infrastructure programs, service delivery reforms and their evaluation. The final section delves into some important aspects in urbanization and the environment.

The first Part of the book focuses on rural-urban linkages including the programs implemented in the rural areas which have an impact on the urbanization process. The programs implemented in the rural areas such as Mahatma Gandhi National Rural Employment Guarantee Act (MNREGA) and Total Sanitation Campaign has significantly reduced the rural-urban migration. The first two papers have highlighted the implementation and sustainability of the above two programs with the help of useful case studies. The third paper focuses on the emerging issue of temporary and short-term migration. It offers an in-depth study of how an informal market accommodates and is in turn shaped by these transient migration flows, taking the case of the cycle-rickshaw rental market in Bilashpur (Chattisgarh) in Central India. The qualitative and quantitative evidences indicate the close interdependence of informal markets and mobile workers offer a critical benchmark for evaluating policy interventions for informal and multi-locational workers in urban settings.

The second part of the book is concerned about urban governance, infrastructure and service delivery. In the first chapter of the section, the authors have undertaken a review of the country's four major cities – Delhi, Mumbai, Kolkata and Chennai – by developing indicators and benchmarks for six thematic areas that capture the crucial dynamics and potential of urban areas. The thematic areas are: (a) History and governance, (b) Demographics, (c) Economic dimensions, (d) Infrastructure and public services, (e) Resources and (f) Quality of life.

While the urbanization phenomenon is widely accepted as being an inevitable by-product of development, there are many undesirable outcomes that have resulted from urbanization. With rapid increase in urban population and demand for urban infrastructure services, the capacities both in terms of human and financial resources of local governments in many countries are overburdened. The authors in the second chapter have taken the case of the state of Karnataka and found that while centrally funded

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programs are better in drawing and enforcing formal processes, local governments are better at implementation of the state funded urban infrastructure programs. With respect to the state centric urban infrastructure programs cities implemented infrastructure projects with great interest and enthusiasm, since they are eventually locally owned and used and these projects facilitated the mobility of residents and improved the ambience of the neighbourhood. In chapter three, the authors have made an analysis of the evolution of contractual allocation of critical risks for PPP projects in the road sector during the different stages of concession agreements for national and state highways in India. The authors have concluded the chapter with the analysis that over the years, risks relating to revenues and cost overruns have been always passed on to the private party, which reflects the belief of the policy makers that the private party is more capable of mitigating the risk. On the other hand, in the case of risks relating to land acquisition and permits/approvals, there is a shift in the risk allocation towards the government, which might be in the best interest of the projects.

Chapter four discusses about an emerging concept of multimodal public transport system which is an integrated approach for metropolitan cities in India that incorporates all components of urban transport into a single system for efficient use of available transport resources and infrastructure to ensure better mobility within a wide range of modal options. The study reveals that the average time saved due to modal shift from bus to metro along the Delhi metro corridor Line I.

In the fifth chapter the author examines the hidden costs in public infrastructure projects, taking the case of the East-West metro in Kolkata. Using data from surveys, this paper finds a road-blockage of 1.5 km with a diversion of 0.9 – 1.09 km, and finds a loss of Rs 8.4 million per year from extra fuel, subsidy, lost man-hour and pollution (excluding cost for vehicle maintenance and accidents). The next chapter investigates the impact of reforms introduced in Solid Waste Management (SWM) in India, focusing on the informal sector in Delhi, more specifically ragpickers engaged in the management of waste.

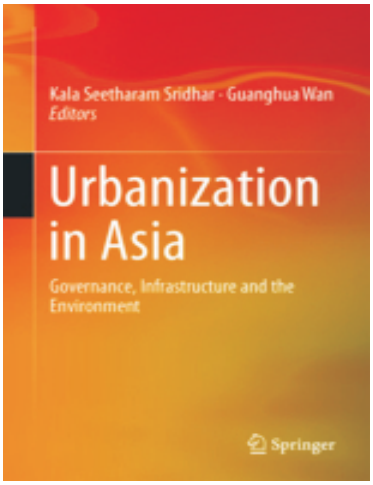
In chapter seven, the authors have estimated the welfare loss due to improper municipal solid waste management in Tirunelveli Corporation in Southern India. The welfare loss is estimated using the logit and tobit models with the purpose of discovering willingness to pay for improving the quality of municipal solid waste management. The authors have listed the important determinants such as household income, family size, years of residing, distance from the landfill sites etc of a household's willingness to pay to avoid diseases caused by rampant municipal solid waste.

The last chapter of the part highlights the regulatory compliance difficulties faced by the SME sector in Fiji and to investigate the solutions for efficient enhancement of this sector and its implications for urban governance. The authors have suggested that there should be a “one stop” check list readily available in different languages detailing all the regulatory compliance needed to be fulfilled in opening and maintaining a business.

Part three of the book highlights on different aspects of urbanization and environment. The author in the first chapter of the section highlights land-use statistics at the national level and for major metropolitan regions to explore the direction and scale of land-use changes. The next chapter explores the relationship between urban form and residential energy use in Bandung, Indonesia. The study concludes that combining the concept of compact urban development and energy-efficient housing design will contribute to better solutions for creating a more energy efficient city.

The last chapter of the volume discusses the nexus of urbanization and environment in Asia. Since the subcontinent is urbanizing at a very fast pace than any other region resulting in increased number of densely populated megacities, the region will be confronted with greater environmental challenges such as air pollution, congestion etc. But at the same time urbanization facilitates the rise of middle class and property owners, development of service sector, educational attainment and innovations in green technology. The chapter offers a cautiously optimistic environmental prospect for the region.

The book makes a good reference reading on urban infrastructure management for policy makers and researchers in this area.



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