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From The Editor s Desk

At the outset, let me thank all contributors and readers for making ***"Tecnia Journal of Management Studies"*** as an astounding success. The great responses we have been receiving from the readers are acknowledged for their interest of sending the research based articles to us for the publication. Moreover we are getting good response from reputed Management Institutes which are sending their Journals to us on mutual exchange basis. These kinds of support motivate us to serve you better. Our sincere thanks to all the respondents who are supporting us in this regards.

We are happy to launch the fourth issue of our academic journal. The present issue incorporates the following articles:

- Global Supply Chain Strategies and their Impact on the Indian Market
- Indian Medical Tourism Industry: Growth Opportunities and Challenges
- E-Business, Globalization and Human Resource Management: An Examination of Trends, Definitions and Directions
- Preference and Pattern of Investment in Mutual Fund
- Organizational Commitment: A Comparative Study of Manufacturing and Service Organizations
- A Study of Disclosure Practices of Public, Private and Multinational Institutions in India
- Quality in Service Sector – An Indian Perspective
- Employee Self Services Applications: A Tool for HR Effectiveness
- Emerging Technologies for Logistics & Supply Chain Management
- Simulation Modeling: A Key for Business Process Change

My thanks to the authors Dr. P. Kameswara Rao, Ms. Shikha Rastogi Garg, Mr.Deepak Kalia, Dr.Deepak Thagi, Prof. Sanjiv Mittal, Dr. Sunil Gupta, Ms.Garima Mathur, Ms.Silky Vigg, Dr.Umesh Holani, Ms. Tarika Singh, Ms Seema Mehta, Mr. Hemant Soni, Prof. S. K. Sarangi, Dr. Madhuchhanda Mohanty, Mr. C.M. Maran, Dr. Kawaljeet Singh, Dr. Rajesh Verma and Mr. Ashu Gupta who have sent their manuscripts in time and extended their co-operation particularly in following the American Psychological Association (APA) Style Manual in the references.

I wish to sincerely thank our Chairman, Sh. R. K Gupta who has always been a guiding light and prime inspiration that led us to publish this Journal. I am grateful to Dr. A. K. Srivastava, Director, for his continued encouragement for bringing out the journal in such a proper form. I am also grateful to Dr. Nirmal Singh, Chairman, Editorial Committee for his advice and suggestions in shaping the Journal. My sincere thanks to our distinguished reviewers Dr. Anjana Shrivastav and Dr. Urvashi Sharma for their untiring effort and support in bringing out this bi-annual Journal.

I am sure the issue will generate immense interest among corporate practitioners, policy-makers, academicians and students.

Dr. D. Antony
Editor

Contents

Global Supply Chain Strategies and their Impact on the Indian Market

P. Kameswara Rao*

Abstract: *The dream of every Marketing manager is to capture a sizeable market share over the competitors. In this direction he has to consider various potential business models and strategies to entrap his potential consumer in the market. At present in India there is a boom in the middle class incomes and it would give ample scope for Indian as well as global companies to explore the market through offering better quality and value. The main emphasis in this paper was to identify the strategies like CRM followed by various FMCG companies to improve close customer relationships. To this end a study was conducted to know the impact of IT usage to improve the performance of retail supply chains. This paper is exploratory and descriptive in nature, wherein much of the information about the existing supply chains has been extracted through interviews with the retailers and wholesalers of FMCG majors.*

Introduction

It is a well established fact in the present globalize and competitive world without the active support of the Marketing department survival is questionable to any company. So, marketing has always been an enthralling and challenging subject. As day-by-day the technology is establishing newer roles and providing new dimensions to the marketing phenomenon, it has become critically imperative to establish parameters and standards whereby profits can be reaped. Any strategy for the matter of fact even marketing strategy in totality is supposed to cater to the needs of the customers and to also bring revenues to the company. There is a dire need of innovative marketing techniques in this cut-throat competitive world. These techniques not only stabilize the market standing of the company but also will be helpful in achieving competitive advantage.

At this juncture, this paper is an attempt to study the traditional channels of distribution and the ability to transform them into cost efficient supply chains. In India, a country which has diversity inculcated in its very nature of business ˘ it is a challenge for fast moving consumer goods (FMCG) companies to standardize their operations and incorporate technology in the very silos of their business model.

Literature Review

Reasons why information system or IT inventory records are inaccurate due to external and internal theft (Bullard and Resnik,1983), unsaleable (e.g. damaged, out-of-date, discontinued, promotional, or seasonal items that cannot be sold any longer) incorrect incoming and outgoing deliveries (Raman et al. 2001). There is some empirical evidence on the magnitude of these factors that cause inventory inaccuracy with the usage of IT in retail supply chains.

According to survey data, internal and external theft, administrative errors and vendor fraud accounted for an estimated 1.8% of sales in the US retail industry in 2001, costing US retailers USD 33 billion (Hollinger and Davis, 2001). For US supermarkets, the NSRG (National Supermarket Research Group) survey 2001 estimates that internal and external theft, receiving errors, damage, accounting errors and retail pricing errors amount to 2.3% of sales. These figures only take into account the item value, but not any process related costs (e.g. for handling of damaged items). To our knowledge there is a limited amount of research that has been carried out to study the effect of inventory inaccuracy and usage of IT would improve the supply chain performance.

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Ganeshan et al. (2001) simulate the impact of forecasting error (among other parameters) on supply chain performance, but do not consider inaccurate inventory data as well as applications of IT in the retail supply chains. Location of goods takes into account that errors can occur at different points in the production process; e.g. at the beginning of the production process or closer to the end. The authors conclude that frequency of error has a consistent and dominant impact on the performance measures that they used in various applications of information technology by various retail giants in US as well as in India.

Inventory inaccuracy is eliminated by inventory counts which are conducted in regular time intervals. The authors use the amount of labor needed, the inventory level, the amount of past due demand and the percentage of late orders as performance measures. Krajewski et al. (1987) conclude that inventory inaccuracy as well as the usage of IT by the Global Supply Chain companies had less impact initially but there is a long-term impact on the performance than anticipated. Of the factors considered, a reduction in batch sizes combined with shorter setup times had the single most important impact on performance.

Traditional supply chains/distribution channels

There is a saying that, if you want to succeed quickly, you need to be interdependent. This holds true for business houses also. Likewise, successful value creation needs successful value delivery. There is a strategic importance for companies to manage their value chains effectively in order to establish a better long term relationship with their customers. Accordingly, sets of interdependent organizations involved in the process of making a product or service available for the use or consumption. They are a set of pathways, a product or service follows after production, culminating in purchase and use by the final end-user. Marketing channels must not just serve, they must also make markets. The choice of appropriate channel affects all marketing decisions. The company s pricing depends on whether it uses mass merchandisers or high quality boutiques. The firm s sales force and advertising decisions depend on how much training and motivation dealers need. The decisions related to marketing channels involve a long term relationship and commitment with other firms as well as a set of policies and procedures.

- **The Indian Scenario:** In India, the companies are using hybrid channels depending upon the different customer groups and regional diversities in which they might be operating. Most Indian manufacturers use a three-tier selling and distribution structure that has evolved over the years: distributor, wholesaler and retailer. As general examples, a company operating on all India bases could have between 400-2,300 distributors. The retailers served directly by a company s distributors may similarly be between 250,000 ˘ 750,000. Depending on how a company chooses to manage and supervise these relationships. Its sales staff could vary from 75 to 500 in number. Typical gross percentage margins for a distributor wholesaler and retailer are 4-5, 3-4 and 10-15 respectively. Wholesaling is profitable by maintaining low costs and high turnover. Many wholesalers operate out of wholesale markets. India has approximately 4 million retailers, mostly family-owned or family run businesses. In urban areas, the more enterprising retailers provide credit and home-delivery.

- **The Dynamic Business Model:** In recent years, there has been increased interest by companies in improving their distribution land logistics in their effort to address the fierce competition. Marketers are increasingly outsourcing some key functions in the distribution and logistics areas to courier and logistics companies and searching for efficient ways to reach the customers. Most FMCG and pharmaceutical companies use Clearing and Forwarding (C&F) agents for their distribution and each C & F agent services are given in an area, typically a state. It is also important to mention that duty structures vary among states for the same product, thus creating disparate pricing. With warehousing establishment costs on the rise the C & F agents are becoming a norm. Recent years have also seen innovative trends where companies utilize distribution channels for products with complementary characteristics. While there are no major national store chains, departmental stores and supermarkets are mushrooming in most of India. Most towns have well-known district markets and retail sales outlets are almost always locally owned. Buying and selling is often a process of bargaining and negotiation. Outside the major metropolitan areas, India is an intricate network of rural villages.

In the recent years, there has been an emergence of mature channels of distribution and support for products such as computer hardware, software and peripherals, ranging from commodity products to high end IT equipments. The typical distribution structure has been two-tiered with a distributor servicing dealers and retailers. It is found that improvements in packaging technology have also had a significant influence on the models of distribution adopted by companies in India for marketing perishable land processed food items. The number of distribution channels is grown to larger proportions in India, during the past few years with an estimation of four million retail outlets. Any prudent distribution manager thinks and decides first, the broad design of the distribution channel with various possible tiers. Then he may think of the number of members required in each tier in various locations.

Objective & Methodology

The main objective of this paper was to study the existing distribution networks in the country by making an exploratory study of Dabur and Hindustan Lever Limited (HLL). The selection of these two companies was done arbitrarily keeping in mind that HLL has its strength in its unparalleled distribution network; and Dabur was selected, as it is one of the Indian companies, which has used information technology to integrate its disparate systems.

The focus of the study was to identify the strengths of using information technology to make supply chain and customer relationship more suited to the needs of the company. The companies have realized the strategic importance of information in developing long lasting and profitable relationship with the distributors and the customers.

Simple random technique has been employed in this research. This is because the homogeneous nature of the market. A sample of 250 retailers and 50 distributors was selected in the small towns of Tamil Nadu, such as Vellore and Ranipet out of 500 retailers and 120 distributors.

The limitation of this study is that we could not find all the respondents as the duration of this project is limited. A questionnaire on the IT usage in ordering process was used. This was done to find out the relevance of IT-enabled supply chain as existing in the class-C category towns, which do not have the relevant, IT support infrastructure. Despite all talks about integrating information technology the actual penetration and usage of IT in relationship management or marketing still remains negligible.

Hypotheses:

H_0: There is no significant usage of Information Technology by Dabur and HLL to make the Supply Chain efficient is still negligible in class-C towns.

H_1: There is a significant usage of Information Technology by Dabur and HLL to make Supply Chain efficient is on the growth in class-C towns (Alternate Hypothesis).

The research data was collected by our group of interviewers through questionnaires and personal interviews with the dealers and the retailers.

The current status of Dabur

With over 300 diverse products in the FMCG, Healthcare and Ayurveda segments, Dabur has a huge global network of suppliers and vendors, purchasing roughly 7,000 items. In 2001, Dabur decided to tackle its extended supply chain of over 30 factories, 6 key warehouses and 52 stocking points distributing over 1,000 SKUs to 10,000 stockists countrywide. The company needed a system to accurately control distribution and sales forecasting to reduce inventory in the pipeline. The Central Planning and Procurement Division (CPPD) is responsible for purchase operations at Dabur, acting in coordination with productions and marketing divisions.

Dabur is a very old FMCG company. Its main revenue is typically generated by the outbound logistics. Dabur s outbound logistics is very extensive: There are 29 factories where different products are manufactured and delivered to various parts of the country. The finished products are stored in six major warehouses. Dabur also has 47 C&F (Carrying & Forwarding) Agents. The scale of operations is such that the company dispatches 100 truckloads of goods every day from the 29 factories. These products reach to more than 750 large distributors all over the country through the C&F agents.

Dabur created an in-house, easy-to-use; Intranet based data-warehouse that displays as-of-yesterday sales, stock, receivables, banking and other MIS. Over 5,000 ASP pages meet almost all reporting requirements and make this a single source of MIS for all levels of decision makers. This success paved the ground for the company s supply chain initiative. Fifty-five Ku Band TDMA VSATs were used to link primary distributors to the system. Factories were hooked up using PAMA (Permanent Assigned Multiple Access) VSATs. At some locations VPNs had to be used because it was not possible to set up a dish. The zonal offices in Mumbai were hooked up in a similar manner. The hardware is mostly owned by the primary CFA (Carry and Forward Agent) except for the networking equipment, which is owned by Dabur. In the case of the secondary systems, stockists wholly own the hardware. The primary rollout of this IT initiative began in April 2001 to all divisions (family products, healthcare, ayurvedic products and pharmaceuticals) and testing and piloting the same.

The integrated primary and secondary system has a number of unique features. The features like tight integration of schemes, stockists credit limit control, automated banking of cheques and online cheque reconciliation has obvious advantages in the primary distribution. These are basically extensions to the MFC/PRO ERP system and nor core customizations. Dabur s stockists supply to 1.5 million retailers. Seventy per cent of the sales are accounted for by the tip 500 stockists. Details are collected from stockists on a weekly basis. In case of primary distribution points, an incremental backup is sent to the central location when the CFA closes operations for the day. These are computed at night in a process called cubing . The integration allows better control on pipelines in primary and secondary, brings down inventories and offers better control on production and sales against a confirmed forecast.

It is found in the FICCI (Federation of Indian Chambers of Commerce & Industry) survey that more players in the sector are moving towards their own manufacturing facilities rather than out-sourcing it. Stressing that the sector is poised for further growth, the survey demanded pro-active government action helping the industry achieve lower cost, improved quality and competitiveness. It also revealed that even as most of the MNCs have started out-sourcing their products from India, Indian companies are going global and are focusing on overseas markets like Bangladesh, Pakistan, Nepal, Middle East and CIS countries. India s leading ayurvedic drug maker and FMCG major, Dabur, has evolved a multi-pronged strategy to double its export turnover. The company plans to launch Dabur and Vatika globally in West Asia, Gulf Cooperation Council and the SAARC countries.

The current status of HLL

India s largest consumer goods company has a large distribution network comprising of 7,000 re-distribution stockists and 40 C & F agents. HLL s distribution network is recognized as one of its key strengths which helps reach out to its products across the length and breadth of this vast country. The need for a strong distribution network is imperative; since HLL s corporate purpose is to to meet the everyday needs of people everywhere.ƒ In addition to the ongoing commitment to the traditional grocery trade, HLL is building a special relationship with the small but fast emerging modern trade. It aims to reach one lakh small villages, touching over 100 million rural Indians and would be providing training to underprivileged women from small villages. HLL has presence in over 1500 towns covering 80 per cent of the urban population and has built a base of over 2.5 lakh consultants and the key driver is the enterprise-opportunity. HLL s scale enables it to provide superior customer service including daily servicing, improving their range availability whilst reducing inventories. With the influx of competition from smaller companies, HLL realized that it had to defend its turf by focusing on its competitive strengths. HLL developed distribution systems during the shortages of 1960 s and 1970 s and it was developed for a retail environment that was mostly made up of small grocers. The whole focus was to maximize the reach to the markets at the lowest cost. Everything flowed from this; retail margins, credit terms and promotional schemes, point of purchase materials, even pack size and design, for maximum impact in the small cluttered store space where customer did not have direct contact with the products. The company ended up with five parallel distribution networks for detergents, soaps, beverages, foods and ice creams. But the retail environment was changing. In many parts of the country supermarket chains were coming up, but perhaps more significantly, the anticipation of the chains was forcing the larger *kirana* stores to modernize, expand, give their consumers walk-in and direct access to products and provide a wider range and better ambience.

The other efforts made were in the area of Direct to Consumer (DTC). DTC was mostly a part of Project Millennium, the turn-of-the-century introspection exercise undertaken by HLL. As consumers were getting choosy about products, it was becoming difficult for HLL to keep up with customer needs. In addition, economic shifts were making consumers more entrepreneurial and women were becoming more empowered not just as consumers, but also as individuals. This led HLL to experiment with several ventures, in broadly four areas: Sangam, a hybrid retail venture; Shakti, an ambitious attempt to use the principles of micro credit organizations for FMCG distribution; the HLL Network, a direct sales system and several product-plus-service ventures.

HLL is constantly looking for new models of distribution. It has initiated the program of self-help groups. It has developed a commercially successful model by targeting women belonging to the lower income strata who can form SHG (self help groups). HLL s project called Shakti, enables women to take micro credit to buy the company s products and sell this to cover 50,000 villages, involving 13,000 women in just three years. The FMCG sector has acquired many new consumers through better penetration using the smaller pack or the low unit price strategy; volumes are yet to rise significantly, but the real market growth could be a little better than what the research numbers show. For, Direct/Multi-level marketing, store brands and imported products are not necessarily captured by the market research agencies. And, the menace of unfair competition ˘ counterfeiters, adulterators[a] could be taking away 5-10 per cent of the industry s turnover.

How to make distribution networks competitive?

Several FMCG companies have started to use unconventional routes to distribute their products, as they realize that until they upgrade their distribution channels keeping in consideration the fast changing consumer preferences, they would not be able to survive. Companies are not only finding it tough to create an extensive distribution network along conventional lines, HLL or Coca Cola India; they are also looking to place their products where there is more visibility. And being aware that in smaller towns and villages the access to consumers may be limited, several FMCG companies have taken to unconventional route. Kolkata based Emami Ltd., has tied up with Posts and Telegraph Department to place its products across 5,000 post offices. Emami will also use e-choupalƒ outlets where a computer literate villager conducts trade on the net. Also ITC has been successful in eliminating middlemen by creating e-choupals where farmers use credit to buy FMCG goods.

The usage of CRM

As the ultimate goal of marketing is profitable exchanges, market orientation is about laying the foundations for the establishment and growth of relationships that will deliver these exchanges. Knowledge of consumers is critical for developing successful relationship marketing strategies. Consequently, the customer does not receive value from the purchase itself, but from each exchange between customer and provider. As products are integral part of relationships, more and more companies are focusing on relationship development. CRM adds new dimensions to product differentiation. Product differentiation is thus no longer simply about how to differentiate product features from competing products or how to create price differentiation. Instead, managing relationship related processes is a core competence. CRM indicates a two dimensional shift: on one hand a shift from transactional thinking to relationship thinking and the other hand from product-based thinking to enhancing the competitive distinctiveness.

HLL s scale enables it to provide superior customer service including daily servicing, improving their range availability whilst reducing inventories. HLL is using the opportunity of interfacing more directly with consumers in their retail environment through specially designed communication and promotion. This helps in building traffic in the retail stores for increasing profits. To meet the growing consumer need of toothpaste, shampoo and soaps delivered to the doorstep, HLL has plunged into project such as Sangam Direct. The project offers different brands of FMCG products after the consumer has placed his order on phone. Its project Shakti provides framework, the intellectual direction and the processes by which the system is governed and operated. By roping in consumers in the distribution channel, the FMCG behemoth is increasing its presence in the rural India, which offers opportunities for expansion. The Project was started in 2001 and already covers more than 5000 villages in 52 districts of Andhra Pradesh, Karnataka, Madhya Pradesh and Gujarat and is progressively being extended. The vision is to reach over 100,000 villages thereby touching 100 million consumers. Hindustan Lever Network (HLN) is the company s arm in Direct Selling Channel, one of the fastest growing in India today. It already has about 3.5 lakh consultants-all independent entrepreneurs, trained and guided by HLN s expert managers. HLN has already spread to over 1500 towns and towns covering 80 per cent of the urban population, backed by 42 offices and 240 service centers across the country. It presents a range of customized offerings in Home and Personal Care and Foods.

Dabur works on two ERP systems. For the outbound logistics, it runs QAD ERP suite known as MFG/PRO. For manufacturing locations, there s BaaN. BaaN requires a central server. To fit so many locations, many of them situated in small and remote areas into a central processing system, Dabur needed a VSAT (Very Small Aperture Terminal) network. As with most companies, sales at Dabur peak towards the last 4-5 days of the month. If the companies were to depend on this kind of a central server architecture, which would be connected through VSATs, the network would be enormously overburdened during every month-end. However, the company never wanted to make the network a critical component in the automation of outbound logistics.

CRM efforts in the FMCG sector

With more and more companies trying to manage their operations, marketing efforts and consequently relationships with the motive to manage customers and distributors for a lifetime; the effort has become more focused towards involving the customer and the distributors. Findings what the customer wants or how he is reacting towards the company s sales promotion efforts requires building relationship with the distributors and the dealers. There has been much emphasis on integrating the various levels of the distribution or supply chain to increase the efficiency of decision-making and also developing greater accessibility in the value chain. As marketing efforts are becoming increasingly governed towards understanding not what the customer values today, but what he would value in the coming days land months-relationship management has emerged as a potential tool to enable this.

- Coca-Cola India, says it trains consumer response coordinators (CRCs), who in turn train their sales teams to understand and implement its global systems. In Coca-cola India, the CRM system generates daily, weekly, monthly and annual reports that keep the management aware of the routine and the evolving consumer concerns, with management reviews undertaken routinely.
- Chennai-based FMCG Company, CavinKare Pvt. Ltd, meets up with identified members of consumer panels once a quarter for every brand in its portfolio to take first level feedback on user experience or to test a hypothesis based on feedback from the sales force. CavinKare has reaped benefits from extensive specific interface programs, one example being, organizing regular hairdressers and explains to them product features. The team also takes aggregate-level feedback from hairdressers on consumer experience, which is pooled for strengthening the product offering and communication.
- Pepsi India, is putting together an online monitoring system for retailer-level demand forecasting, especially for retailers who are key Pepsi accounts ˇ in other words, retailers who are bulk customers on a regular basis.

Enhancing the customer delivery process

There has been a growing concern and concentration to adopt IT to make marketing more dynamic. The FMCG sector was the early adopter of ERP packages. They were the first to jump into the ERP bandwagon. While the subsequent benefits that were derived, were certainly as those, which were expected, it has formed a strong and stable base of the current IT initiatives being pursued. ERP has also helped to bring in a sense of discipline in the various business workflows, besides establishing a level of efficiency in the transactions taking place across various locations. With this kind of standardization access to information has become easier and it has improved the transparency across various processes.

- **Supply Chain Integration:** The FMCG sector is growing fast and considerable importance is being given to the distribution network to improve the customer delivery process. FMCG companies are trying to extend the domain of their IT initiatives to encompass their business partners like suppliers and the distributors. Extending the reach with the distributor would enable the company to have greater interaction with him and also will help in making him feel an important part of the company. In essence this would propel a movement from a push systemƒ to a pull systemƒ translating into inventory efficiencies right from the distributor stock point to the Carrier and Forwarding Agents (CFAs) and to the manufacturing location. Efficiencies in inventories would generate better ROI for the distributor thereby strengthening the relationship with the organization. It would also create a system where the organization would have access to information of secondary sales (from the distributor to the retailer) translating into higher degree of accuracy in forecasting and demand planning. It would allow an organization to align its existing processes to be more customer-centric and focused towards market needs. Building relationships with suppliers would enable companies to move gradually towards vendor managed inventory, empowering distributors to control inventory at his level as well as the company level.
- **IT-Powered System** has been implemented to supply stocks to redistribution stockists on a continuous replenishment basis. The objective is to catalyze HLL s growth by ensuring that the right product is available at the right place in right quantities, in the most cost-effective manner. For this, stockists have been connected with the company through an Internet-based network, called RS-Net, for online interaction on orders, dispatches, information sharing and monitoring. RS-Net covers about 80% of the company s turnover. Today, the sales system gets to know every day what HLL stockists have sold to almost a million outlets across the country. RS Net is part of Project Leap, HLL s end-to-end supply chain, which also includes a back-end system connecting suppliers all company sites and stretching right up to stockists.
- **Out of home consumption of products and services** is a growing opportunity in India, as elsewhere in the world. Hindustan Lever is already the largest player in the hot beverages out-of-home segment, with over 15000 tea and coffee vending points. The company is expanding the network aggressively in the education, entertainment, leisure and travel segments. HLL s alliance with Pepsi will significantly strengthen this channel.
- Dabur India is now toying with the idea of setting up call centers with toll-free numbers or interactive websites or both. The problem of the consumers being too many and too scattered remainsƒ. But they do recognize that CRM is an emerging industry trend. And though the company has not yet decided

on the medium to deploy consumer-end CRM, the effort would be to provide a platform to the consumer to get closer to the company and encouraging her to offer solutions, feedback and suggestions.

HLL intends to harness the best out of its distribution channels through well trained employees and channel partners; a total of in over of 300,000 people in all. They are trained to market HLL products in 1,500 towns and thousands of villages. Under Project Dronacharya, the company imparts training to over 10,000 stockist salesmen on a regular basis. The company is pushing aggressively the concept of Lakme Salons and Lakme Training aimed at providing high quality technical inputs in beauty care, hair styling and skin care to the beauticians and stylists.

Table 1. Integration of Information Technology in ordering process

Type of ordering process followed	Distributor Level %	Retailer Level %
Computer-enabled	05.33	
Manual phones	33.16	12.78
Through company agents	61.51	87.22

Table 2. Integration of Information Technology in the billing system

Type of billing process followed	Distributor Level %	Retailer Level %
Computer-enabled	12.57	
Manual	66.33	22.63
Through company agents	21.10	77.37

Table 3. Integration of Information Technology in building and managing relationship

Techniques for relationship management followed	Retailer Level %
Computer-enabled	-
Distributors Agents	54.44
Through Company Agents	45.56

Table 4. Usage of IT in managing inventories

Type of inventory management followed	Distributor Level %	Retailer Level %
Computer-enabled		
Random	53.14	89.74
Forecasting by Monthly sales	46.86	10.26

Results

The findings of the study are shown as per the tables given:

Whatever may be the secondary data and reports showing integration of Information technology at different tiers of the distribution networks to make the supply chains efficient, in the class-C towns the usage of information technology is very little and in some places; it is not being used at all. In order to reap the benefits of information technology it becomes pertinent that the company should be able to integrate its various layers in the distribution network. In smaller towns the ordering and billing processes are still traditional and not even automated. In case of any problems with the products or non-availability of certain brands; there is no technique where the small retailers can have direct access to company sales force or CFAs.

The study was conducted on small towns of Vellore and Ranipet of Tamil Nadu and as stated earlier the information was gathered by direct interaction with the retailers and distributors. The Null Hypothesis stating the usage of IT by HLL and Dabur to make the supply chain efficient is still negligible in class C towns*f* is accepted. There is a lot to be done to improve the supply chains in smaller towns.

The distributors or dealers are having their own agents who visit the retailers and take orders from them. The small retailers located in the interiors of the city feel that the company does not pay much attention to their demands as at times they are stranded with outdated and older packaged products. As the customer is aware of the promotional campaigns, he generally demands for the latest products, which give him the discount or some advantage in the purchase. Non-availability of the product leads to loss for the company and also creates dissatisfaction amongst the consumers.

In case of non-availability of the product, the retailer has to sell other companies product to the consumer. The company agents give the retailers located in the main shopping centers greater attention and also their requirements are met on the priority basis. As there is no IT enabled billing system, it becomes impossible for the company to find out the position of stocks and status of products with the retailers. Also ordering is done more on random basis rather than on some projections based on sales of previous months; it creates complexity in the distribution system.

In order to reap the benefit of automation and supply chain management it is important for the FMCG sector to slowly take the smaller towns also in their fold and try to improve their reach by catering to the needs of the smaller retailers also. For building longer lasting relationship, it is important to build better relationship with smaller retailers in the Class C towns, as they are actually responsible for convincing the consumer to purchase a particular product. As the *kirana* stores are having more one to one relationship with the consumers, being located near his/her house, treating the smaller retailers becomes important. Greater importance is being given to the wholesalers and distributors rather than the retailers.

CRM can help FMCG companies to:

1. **Manage campaign:** The success of corporate marketing programmes has become directly proportional to a company s ability to capture and analyze the right date. Information technology enables companies to store relevant information about their consumers and plan the campaign targeting the right consumers. Earlier the marketing managers decided upon the marketing strategies, launched the advertising and promotion campaign and wait for market reaction action. IT enables them today, to extract information and use it to take decision, the results of the advertising strategy and promotions can be measured on the day-to-day basis.

2. **Involve Customers in Decision Making:** With the distribution network becoming closely attuned to customer needs, more and more companies are given preference to consumers likes and opinions. With Lakme salons, e-choupals, Project Shakti, there is a growth in the process of involving consumers as a part of distribution network. This also enables companies to get feedback about the various new product launches immediately.

3. **New Product Launches and Innovations:** New product innovations and launches are being tailored to customer needs. Having data available at all points of the marketing process has enabled managers to plan new product launches according to the customer requirements and lifestyle. This reduces the probability of error.

4. **Behaviour Prediction:** This enables companies to predict what customers are likely to purchase in future. Integrating marketing with the supply chain and distribution channels would help companies in not only reducing inventory but also understanding what products consumers are going to purchase and when. IT has made it possible to predict which kind of products consumer would purchase in future, which products have the likelihood of being purchased with other products. Accordingly, it becomes easier to plan promotions and discounts at stores to increase buying of the products.

5. **Channel Optimization:** The goal of marketing automation is to provide right message to right customer at the right time. With the advent of the Internet, many firms are appending through the right channel*f* as customer preferences evolve. Ultimately making the distribution channels better equipped to meet the customer needs, would mean giving more value to the consumer.

6. **Customer Retention:** Understanding the consumers, predicting their behaviour would also enable companies in aligning their strategies to retain the customers. It would help companies to understand why a particular consumer has decided to change his/her preference. After all, more dissatisfied consumers leave means greater loss to the company in the form of revenues.

CRM is first and foremost a business strategy, one that helps company tighten its business practices across organizations while forging an ironclad connection with the consumer. It involves more than information technology.

Conclusions

We are able to deduce that there is a growing need of integrating and devising strategies while implementing IT solutions in the retailer level as well as distributor level. In India there is a need to reduce the layers that exist in the channels of distribution and make them efficient in terms of carrying excess inventories and also more dynamically related to interpret consumer needs. As traditional distribution channels are still being followed and the cost benefit cannot be transferred to the consumer. FMCG sector has the most unwieldy distribution structure and until it is transformed and restructured the benefits of IT in form of SCM and CRM cannot be translated into revenues. Therefore, the companies have to do lots of homework before facing the fierce competition of global giants in the retail sector. There is a wider scope for academicians as well as industrialists to conduct thorough research on the Impact of Global Supply Chain Strategies on the Indian Market.

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INDIAN MEDICAL TOURISM INDUSTRY: GROWTH OPPORTUNITIES AND CHALLENGES

Shikha Rastogi Garg*

Abstract: *Most of the population from developed countries like United States and Europe see an advantage in traveling to developing third world countries, like India, Sri Lanka, Thailand, Philippines, South Africa, etc. while combining medical treatments with an option of inexpensive vacation. This trend is now popularly known as Medical Tourism or Health Tourism or Wellness Tourism. Medical tourism has greatly developed overtime and it is likely to further expand more as people find it more and more advantageous. In this article, we will focus at the reasons for emergence of the medical tourism as a booming industry in India. In the subsequent sections, the key contributor states and corporate hospitals have been identified. The challenges faced by the industry have also been highlighted in the later part of the article.*

Introduction

Medical tourism (also called wellness tourism, medical travel or health tourism) is a term initially coined by travel agencies and the mass media to describe the rapidly-growing practice of traveling to another country to obtain health care.Such services typically include elective procedures as well as complex specialized surgeries such as joint replacement (knee/hip), cardiac surgery, dental surgery and cosmetic surgeries. The provider and customer use informal channels of communication-connection-contact, with less regulatory or legal oversight to assure quality and less formal recourse to reimbursement or redress, if needed.Leisure aspects typically associated with travel and tourism may be included on such medical travel trips.

We define Medical Tourism*f* as travel undertaken to improve one s health. This travel is driven by the internet, progressively cheaper flights, improved physical connectivity between large numbers of nations, improving longevity and most importantly disenchantment with the delivery of healthcare in terms of quality and price in the countries people live in.

The Governnment of India has realised the potential of the medical tourism as an industry. India s National Health policy 2002, says: to capitalise on the comparative cost advantage enjoyed by domestic health facilities in the secondary and tertiary sector, the policy will encourage the supply of services to patients of foreign origin on payment. The rendering of such services on payment in foreign exchange will be treated as deemed exports and will be made eligible for all fiscal incentives extended to export earnings*f*. The various states are not just being promoted as tourist destinations but the state policies clearly reveal the plans to enhance the image of the state as a major medical tourist destination which include not just the states like Delhi and Kerala but also the states like Rajasthan. As per a presentation of Max healthcare (Dr. Sanjiv Malik, CEO), India stands a fair chance to emerge as an advantageous solution for treatment of patients coming from other countries. As in countries in SAARC, Africa and Middle East, no advanced or specialised care is available and besides UK and US suffer from high costings of treatment, long waiting and unaffordable Insurance. However India has it s own share of opportunities as well as challenges which we have tried to explore further in this paper. The paper is organised as follows: The next section gives a brief literature review on the subject. In section 3, we discuss the history of medical tourism. Section 4 talks about the potential of the industry in India . In Section 5, we have discussed the factors that make this

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industry a key contributor to the GDP and subsequently we have discussed the key states and corporate hospitals . The challenges faced by the industry have been discussed in the last section.

Literature Review

Carrera et.al. (2006) have defined health tourism as the organized travel outside one s local environment for, maintenance, enhancement or restoration of an individual s well-being in mind and body. Smith and Kelly (2006) feel that the destination in wellness tourism is often an alternative space in which one can engage in self-analysis without the stresses and distractions of home. The addition of a supportive, like-minded community can sometimes help to further encourage the individual on a journey of self-discovery.

Figure 1. Countries Promoting Medical Tourism
Source: *CBC News Online*

As per CBC News, countries that actively promote medical tourism include Belgium, Costa Rica, Cuba, Hungary, India, Israel, Jordan, Lithuania, Malaysia, Poland, Singapore and Thailand are now entering the field. South Africa specializes in medical safaris-visit the country for a safari, with a stopover for plastic surgery, a nose job and a chance to see lions and elephants (Figure 1).

Mueller et. al. (2000) studied the wellness tourism in Switzerland and has demarcated the wellness tourism in terms of demand (Figure 2). As per Prof. Mueller and Kaufmann, wellness tourism is the sum of all the relationships and phenomena resulting from journey and residence by people whose main motive is to preserve or promote their health. They stay in a specialized hotel which provides the appropriate professional know-how and individual care. They require a comprehensive service package comprising physical fitness/beauty care, healthy nutrition/ diet, relaxation/meditation and mental activity/ education. Further the authors have also proposed the necessary steps that can be taken by the hospitality industry to improve the growth of the industry.

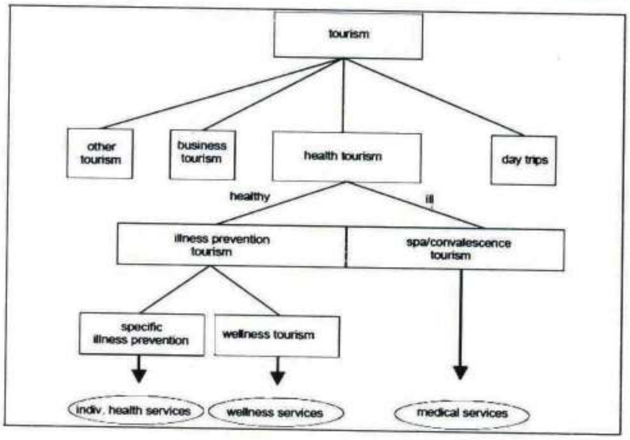

Figure 2. Demarcation of wellness tourism in terms of demand
Source: Hansruedi Mueller and Eveline Lanz Kaufmann

As per a committee report presented by US Senate, special committee on aging, various concerns like quality and accreditation of services have been discussed and the costs involved in obtaining the medical treatment in a different nation has been considered as a vital deciding factor by the natives of US.

The medical tourism in India is still at nascent stage and has a wide scope of growth for the factors that we will discuss in the article. Being a newly identified industry with high growth opportunity, the government is taking various initiatives to promote health as a reason to come to India. While there are ample surveys done and sufficient literature is available on state of medical tourism in countries like Cuba, switzerland, less has been studied about the state of industry in India .The official websites of the various states like Gujarat and Kerala act as an active promotional tool for the health tourism packages . In this article , we have taken into account most of the media reports and the online literature available on the subject. The various hospital websites and catalogues of tourism destinations have been considered to generate an overview of the country industry potential.

Evolution of Medical Tourism

The first recorded instance of medical tourism dates back thousands of years when medical tourism is actually thousands of years old. In ancient times, Greek pilgrims traveled from all over the Mediterranean to the small territory in the Saronic Gulf called Epidauria. This territory was the sanctuary of the healing god Asklepios. Epidauria became the original travel destination for medical tourism. In Roman, Britain patients took the waters at a shrine at

Bath, a practice that continued for 2,000 years. From the 18th century, wealthy Europeans travelled to spas from Germany to the Nile. Since the early nineteenth century, when there were no restrictions on travel in Europe, people visited neighboring countries in order to improve their health. At first, mere traveling was considered to be a good therapy for mental and physical well being.

HEALTH TOURISM THROUGH THE AGES

Neolithic & Bronze Age	Mineral & Hot Spring visits
Middle Ages	Thermal Springs
16th century	"Fountain of Youth"
17th/18th century	Spa
19th century	Sea & Mountain Air (TB sanitarium)
20th century	"Health Farms" or "Fat Farms"
1991	Formation of International Spa Association
TODAY	"Hospitals more like spas & spas more like hospitals."

Figure 3. Health Tourism through the ages
Source: FICCI , seminar on Medical Tourism, 2003

In the 21st century, comparatively lower cost air travel has taken the industry beyond the wealthy and desperate. Later, mostly wealthy people began traveling to tourist destinations like the Swiss lakes, the Alps and special tuberculosis sanatoriums, where professional and often specialized medical care was offered.

In this century, however, medical tourism expanded to a much larger scale. Thailand, followed by India, Puerto-Rico, Argentina, Cuba and other countries have become the popular destinations for medical tourists. Complicated surgeries and dental works, kidney dialysis, organ transplantation and sex changes, topped the list of the most popular procedures. It was estimated that in 2002, six hundred thousand medical tourists have visited Bangkok and Phuket, while approximately one hundred and fifty thousand foreign patients visited India during the same time. From Neolithic and Bronze age wherein people used to visit neighboring countries for Minerals and Hot Springs. Today we have reached the era where Hospitals are more like Spas and Spas more like hospitals.

Destination India: The Rising Potential

Internationally, health tourism is an industry sustained by 617million individuals with an annual growth of 3.9% annually and worth US $ 513 billion (Carrera et. al., 2006). World Tourism Indicators suggest that in 2002, number of International tourists reached the 700 million mark with arrivals to Asia and the Pacific 18.7%. Europe saw highest number of tourists. At that time, India did not figure in the top 10 international tourist destinations because India s share in Asia & Pacific region stands at a mere 1.8% India is a recent entrant into medical tourism. According to a study by McKinsey and the Confederation of Indian Industry, medical tourism in India could become a $1 billion business by 2012. The report predicts that: By 2012, if medical tourism were to reach 25 per cent of revenues of private up-market players, up to 2,297,794,117 USD will be added to the revenues of these playersƒ. The Indian government predicts that India s $17-billion-a-year health-care industry could grow 13 per cent in each of the next six years, boosted by medical tourism, which industry watchers say, is growing at 30 per cent annually. This projection is largely based on the assumption that six hundred thousand Baby Boomers from the United States, Europe and Australia will age and seek medical care by that time.

A report by RNCOS, the leading market research consulting services company, on Indian Tourism Industry Forecast (2007-2011) suggests that , the Indian medical tourism industry an important part of the Indian tourism industry and holds immense growth potential. The medical tourism sector had experienced a phenomenal growth in the flow of medical tourists - from 10,000 patients in 2000 to stupendous 180,000 by 2005. This is because of availability of treatment combined with attractive vacation packages. The report has revealed the declining financial state of national health services in several western countries and the need to treat the uninsured patients. These factors force the insurance companies to look at Indian hospitals, thereby creating huge prospects for the Indian medical tourism industry. As many western countries (that depend on insurance) have inadequate health services, the Indian corporate hospitals can gain from the opportunity by making a concerted effort to attract more overseas patients.

Looking at the growing number of tourists coming to India for treatment, in November 2007, Union tourism minister Ambika Soni announced that a total investment of $6.5 billion is in the pipeline for medical tourism industry in the country. The amount will be used for setting up affordable hospitals and budget hotels for patients relatives in the country.

In the next section, we look into the factors that have made India as a preferred destination for medical tourism services.

Factors supporting India as The Destination :

The government and private hospital groups in the country are committed to the goal of making India a world leader in the industry. The other supporting factors are:

a. **Quality and Range of Services:** India has number of hospitals offering world class treatments in nearly every medical sector such as cardiology and cardiothoracic surgery, joint replacement, orthopaedic surgery, gastroenterology, ophthalmology, transplants and urology to name a few. The various specialties covered are Neurology, Neurosurgery, Oncology, Ophthalmology, Rheumatology, Endocrinology, ENT, Paediatrics, Paediatric Surgery, Paediatric Neurology, Urology, Nephrology, Dermatology, Dentistry, Plastic Surgery, Gynaecology, Pulmonology, Psychiatry, General Medicine & General Surgery. For its quality of services and the infrastructure available, India is attracting a vast pool of tourists from the Middle East, Africa etc.

As Indian corporate hospitals like Apollo, Max HealthCare, Fortis etc. are on par with the best hospitals in Thailand, Malaysia and Singapore and hence add to making the country a preferred medical destination .

India offers not just treatment but spiritual and mental healing as well through the various specialized ancient therapy practices across the country . India needs to club together a couple of pathies because it has a very strong base of alternative healing therapies like yoga, naturopathy, ayurveda, Kerala s health retreats, etc.

b. **Manpower:** India has a large pool of doctors (approx 6, 50,000), nurses & paramedics with required specialization and expertise and the language advantage (English speaking skills). The medical education system caters to the ever increasing demand for the delivery of the quality health care services all over the country.

Training and experience of Indian doctors is widely acknowledged particularly in the US and UK where they have made significant contributions to the delivery of healthcare in the host countries. Many of these doctors after having specialized and practiced in the West have returned home to set up impressive state of the art facilities with the latest equipment, technology and service levels particularly in Delhi, Mumbai and Bangalore and to a lesser extent in Ahmedabad, Pune, Hyderabad and Chennai. Modern dental and eye care is, however, far more widely available at large sized towns and cities throughout the country.

c. **Cost Advantage:** Indian medical tourism is being promoted as First World Treatment at Third World Costs. Long promoted for its cultural and scenic beauty, India is now being put up on international map as a heaven for those seeking quality and affordable healthcare. With 50 million Americans without health insurance and the waiting lists for state-run facilities often endless in the UK, Canada and Europe, foreigners are increasingly flocking to India because it offers quality treatment at a $1/5^{th}$ of the cost abroad.

In India, complicated surgical procedures are being done at $1/10^{th}$ the cost as compare to the procedures in the developed countries (Table 1) . Not only this, the hospitals are well equipped to handle the data and information through computerized Hospital Information Systems. The hospitalization and the procedural price advantage also are supported by lower medication cost. If a liver transplant costs in the range of 137,867 USD - 160,845 USD in Europe and double that in the US, a few Indian hospitals have the wherewithal to do it in around 34,466 USD - 45,955 USD. Similarly, if a heart surgery in the US costs about Rs 45,955 USD, a leading Indian hospital will do it in roughly 4,595 USD.

d. **Tourist Attraction:** India has a 5000 year old civilization and is known for its cultural and religious diversity with diverse geographical landmarks. This adds to the entertainment value that the foreign tourists attain if they have to undergo medical procedures in the country. The traditional arts and crafts add to its appeal as tourists favourite. Along with this Indians enjoy freedom, vibrant democracy and women empowerment.

e. **No Waiting:** In addition to the increasingly top class medical care, a big draw for foreign patients is also the very minimal or hardly any waitlist as is common in European or American hospitals (Table 1). Hospitals now are starting to attract foreign patients from industrialized countries, and especially from Britain, U.S.A and Canada, where patients are becoming fed up with long waits for elective surgery under overstretched government health plans.

The Key States and Hospitals pioneering in Medical Tourism Industry

The states of India differentiate themselves on the therapies that they specialize in. It is not necessary that the states only focus at the popular old herbal or

Table 1. Price Comparison of India Vs US/UK

Treatment	Approximate Cost in India ($) *	Cost in other Major Healthcare Destination ($) *	Approximate Waiting Periods in USA / UK (in months)
Open heart Surgery4,500 Cranio-facial Surgery and skull base	> 18,000 4,300	9 - 11 > 13,000	 6 - 8
Neuro-surgery with Hypothermia	6,500	> 21,000	12 - 14
Complex spine surgery with implants	4,300	> 13,000	9 - 11
Simple Spine surgery	2,100	> 6,500	9 - 11
Simple Brain Tumor-Biopsy-Surgery	1,0004,300	> 4,300> 10,000	6 - 8
Parkinsons-Lesion-DBS	2,10017,000	> 6,500> 26,000	9 - 11

natural therapies but some of the states of India like Gujarat and Haryana (Gurgaon City) are emerging as hospital hubs of India offering the service oriented world class hospitalization facilities.

The Indian Ministry of Tourism has announced a number of incentives to give a fillip to the sector. It has identified 31 villages across the country to be developed as tourism hubs. The states in which these villages have been identified include Himachal Pradesh, Gujarat, Maharashtra, Bihar, Karnataka, Madhya Pradesh, Andhra Pradesh, Kerala, Tamil Nadu, Orissa, Assam, Sikkim, Rajasthan and West Bengal . In this section of the article, we look at the contributions of the few states of India towards the medical tourism.

a. **Tamil Nadu:** Tamil Nadu is the leader in providing medical care, at par with the finest hospitals in the West, in almost all the medical fields. It has plush corporate hospitals especially in Chennai, the capital. The State Government is also aggressively promoting Health Tourism. It is a leader in India especially in Eye Care, Oncology, Orthopedics, Dialysis and Kidney Transplant. Today, practically every road has a good nursing home with attending consultants. Nursing has evolved as a specialty and Indian Nurses handle patients with a humane and personal touch that is the main reason why they are so much in demand in the West.

b. **Kerala :** The pioneer state, Kerala, or God s own country as its corporate slogan goes, has pioneered health and medical tourism in India. They have made a concerted effort to promote health tourism in a big way, which has resulted in a substantial increase of visitor arrivals into the state. Kerala and Ayurveda have virtually become synonymous with each other. However, though Kerala has strongly focussed on Ayurveda and its wide array of treatments and medications, good facilities are also available in the other traditional forms of medicine as well as in modern medical treatment. The bias towards health tourism in Kerala is so strong that Kerala Ayurveda Centres have been established at multiple locations in various metro cities, thus highlighting the advantages of Ayurveda in health management. The health tourism focus has seen Kerala participate in various trade shows and expos wherein the advantages of this traditional form of medicine are showcased. Kerala, has one of the best qualified professionals in each and every field, Allopathy, Dental, Ayurveda etc., and this fact has now been realized the world over. Regarding Medical facilities, Kerala has the most competent doctors and world class medical facilities. With most competitive charges for treatment, Kerala is a very lucrative destination for people wanting to undergo treatment of certain medical problems who do not need immediate emergency treatment.

c. **Gujarat:** Much of the NRI population, that is of Gujarati origin can take advantage of the medical facilities in Gujarat. Gujarat based healthcare providers are open to strategic alliances with hospitals, insurance & travel/ tour operators abroad that may refer patients from their countries of origin. It is felt that many of the Gujarat based operators would have to align with national or international operators, possibly through a strategic stake to take full advantage of the medical tourism possibility. The state has a number of hot springs, the water of which is held to have medicinal value. These serve as health resorts and persons suffering from gout and rheumatism avail themselves of the waters of these hot springs for treatment. These hot springs are at Tulsi Shyam in Gir forest,Unai in Bulsar district, Tuwa near Godhra in the Panchmahals district and at Lasundra in Kaira district.

d. **Karnataka:** Karnataka and especially Bangalore is now an acknowledged global medical destination. This is because of referral quality health services supported by qualified and experienced medical professionals, reputed medical research institutions, well connected for travel, conducive climate and cost of treatment (being just one tenth that of global hospitals). Between 2005 end and 2006 August, the state has also witnessed a funding of 445 crore from leading corporate hospitals as a part of the brownfield and green field projects. These include Rs. 200 crore from the Manipal Health Systems, Rs. 140 crore from Wockhardt Group of Hospitals, Rs. 100 crore from One World Hospital and Healing Centre promoted by Maureen Berlin and Rs. 5 crore by HealthCare Global Enterprises Limited (HCG), a leader in oncology care in the private sector in India.

e. **Maharashtra :** This state has a thriving tourism industry and is now set to have a new kind of Medical Tourism. The FICCI - Medical Tourism Council of Maharashtra is a dynamic initiative jointly undertaken by the Government of Maharashtra, the Federation of Indian Chambers of Commerce and Industry (FICCI), the tourism industry and private as well as public health tourism providers.

FICCI - Medical Tourism Council of Maharashtra has been founded with a clear mission in mind:

- To offer the world s best healthcare facilities coupled with the best heritage and tourist destinations.
- To show the world how to deliver Value for Moneyƒ healthcare, with a human touch.
- To project Maharashtra as a synergysing destination for both medical academia as well as international medical conferences.
- To regulate and monitor the medical tourism sector and assist patients from abroad.

Maharashtra has all the necessary ingredients required to make medical tourism sector a success which include :

- A range of hospitals covering the entire spectrum of medical treatment.
- Over 70,000 highly qualified doctors, of whom 20,000 are specialists.
- 100,000 committed nurses and paramedical staff known for their care and compassion.
- Latest technology and equipment that supports a large number of medical investigations and treatments.
- Tourist spots that are supported by medical facilities, making them the ideal places for rest and recuperation.

Corporate Hospitals

Medical tourism is predicted to double in the next few years as health services in India are a fraction of what they cost in the West. Apollo hospital gets 10-11 foreign patients every month. Five to seven per cent of Escorts patients are from abroad. Though most of the traffic is from West Asia, South-east Asia and Africa, Indian corporate hospitals are networking with international health insurance companies so that these hospitals are recognised and Non Resident Indians can combine their treatment in India with family visits or tour to the country.

a. **Apollo Hospitals** (Delhi, Chennai, Hyderabad & Madurai): The Apollo Hospitals Group is also recognized as the Architect of Healthcareƒ in India. Its history of accomplishments, with its unique ability of resource management and able deployment of technology and knowledge to the service of mankind, justifies its recognition in India and abroad. Their mission is to bring healthcare of international standards within the reach of every individual. Apollo s capabilities have received international acclaim resulting in the replication of its Indian models at international locations. Apollo group is also in talks with private healthcare groups and government authorities in Nigeria, South Africa, Tanzania, Mauritius, Yemen, Muscat, Bahrain, Vietnam, Malaysia, Thailand and other neighboring countries to establish its presence. Apollo Hospital has become the first Indian hospital to be cleared for accreditation by the Joint Commission International (JCI), which is the gold standard for US and European hospitals.

b. **Fortis Health Care** (Mohali-Chandigarh and Noida-Uttar Pradesh): Currently, Fortis has 700 beds spread over Mohali, Noida and Amritsar, and is starting work on another 500-bed hospital in Delhi s Shalimar Bagh. Fortis has ambitious plans to become a 4,000-odd bed hospital by 2011. The model that Fortis has adopted for growth is a hub-and-spoke one. It is developing multi-speciality tertiary care centres with superspecialised nodal centres for instance, cardiology in Mohali and orthopaedic and neurosurgery in Noida. The spokes will have multi-speciality features covering practically all critical diseases. As part of its Greenfield project, Fortis has planned a 500 bed hospital in a residential area of Delhi also. Its Noida hospital, with 180 beds, has specialised orthopaedic and neurosurgery centres.

Taking northern India as the focal point, the company plans to have four hubs in this region and 12-15 spokes in three to five years. It also claims it has the best equipment and state-of-the-art machinery in both Mohali and Noida. The Mohali hospital also has a family inn where the patient s family can stay while he/she is in the hospital. Fortis is also getting into backward linkage, with medical and nursing colleges in Gurgaon (Haryana) along with a research laboratory. The doctors and nurses of these colleges churn out will be absorbed in Fortis s new and existing facilities.

c. **Escorts Heart Institute and Research Centre** (Delhi, Faridabad): Escorts is steadily consolidating its presence in healthcare (90 per cent of its equity is with Ranbaxy-backed Fortis Healthcare Limited). Together with 11 heart command centres and associate hospitals, Escorts is managing nearly 900 beds. Escorts excellence in providing healthcare services has received due recognition. Escorts Heart Institute and Research Centre (EHIRC), New Delhi, has been ranked as the best cardiac hospital in India by an Outlook-Cfore survey and has been given the highest grade by CRISIL - an acknowledgement of the quality of delivered patient care.

EHIRC is a leader in the fields of cardiac surgery, interventional cardiology and cardiac diagnostics. The Institute has introduced innovative techniques of minimally invasive and robotic surgery. The Institute s latest addition of state-of-the-art Cardiac Scan Centre providing a combined power of CV-MRI and Smart Score CT Scanner to diagnose coronary artery disease at its very early stage. This facility is the first of its kind outside America. State-of-the-art infrastructure and equipment has made this set-up technically the largest and the best dedicated cardiac hospital in the world. The 332-bed Institute has nine operating rooms and carries out nearly 15,000 procedures every year. The Centre has launched Medicity, a state-of-the-art $250 million medical venture in Gurgaon. Medicity promises to bring in a new era of medicine. It plans to integrate super specialities like cardiology, neurosciences and oncology.

d. **Dr. Vivek Sagar Dental Care and Cure Hospital** (Ludhiana): The state-of-the-art dental hospital has a 6 chair operatory with an in house Dental Lab, Dental Caps and Crowns, which has been designed on the European standards. The office has been designed to provide an environment of comfort that combines exceptional skill levels, a respectful approach to treatment, clinical and technical excellence with an individualized care approach by providing the most advanced, optimal dental care to the best of their ability. Theirs is a full service cosmetic and general dental office specializing in creating beautiful smiles. For NRI s and foreigners they provide special care in the form of appointments at a short notice and the work is completed within the span of 3-5 days keeping in mind the tight schedule.

e. **NM Excellence**(Mumbai): NM Excellence was formed from one man s vision to provide a healthier future for the citizens of Mumbai. Established in 2001 by M.D. Radiologist Dr. Nilesh Shah, this modern and sophisticated preventive health checkup centre aims to revolutionize the way healthcare is perceived and practiced in India. Backed by over two decades of diagnostic experience under the banner of NM Medical, NM Excellence employs the latest, top-of-the-line imagining modalities, operated by qualified and professional doctors, with a friendly and efficient staff to make a client s experience as memorable as possible. Having viewed the vast range of diseases that can be prevented if detected early enough through its diagnostic experience, NM Excellence philosophizes that a preventive health checkup in today s day and age is an absolute must. NM Excellence is one of Mumbai s foremost preventive healthcare centres boasting of top-of-the-line diagnostic equipment, highly qualified doctors, a well-trained service staff and a professional yet warm environment that makes one feel at home immediately.

f. **PD Hinduja National Hospital and Medical Research Centre** (Mumbai): An ultramodern hospital on the busiest artery in Central Mumbai, PD Hinduja National Hospital & Medical Research Centre was established by the Hinduja Foundation in collaboration with Massachusetts General Hospital (MGH), Boston. The fulfillment of Founder Parmanand Deepchand Hinduja s dream, the 351-bed hospital offers comprehensive services covering the gamut from diagnosis and investigation to therapy, surgery and post-operative care. As a tertiary care hospital, the services offered are comprehensive covering investigation & diagnosis to therapy, surgery & post-operative care. The inpatient services are complemented with a day centre, out-patient facilities and an exclusive center for health check for executives. Hinduja Hospital was the first multi disciplinary tertiary care hospital to have been awarded the prestigious ISO 9002 Certification from KEMA of Netherlands for Quality Management System.

g. **LV Prasad Eye Institute** (Hyderabad): Set up as a not-for-profit trust, LVPEI has now come a long way in its journey towards realizing these goals. However, the changing world continues to throw up new challenges and new threats to health, and LVPEI too continues to search for ways in which these challenges can be overcome, in the field of eye health. In partnership with international health organizations such as the World Health Organisation and the International Agency for the Prevention of Blindness, LVPEI designs and implements innovative eye health programmes. Their successes include the establishment of high-quality eye care at the lowest possible cost.

Challenges to the Industry

India is emerging as an attractive, affordable destination for healthcare. But there are some challenges that the country has to overcome to become a tourist destination with competent health care industry:

a. **Government norms:** Processing of medical visas, registration of tourists screening processes for certain nationalities takes more than expected time. As per government norms, the bureau can process the registration formalities only on seeing the patients from foreign countries. This stands as a major challenge while for the same purpoes in Thailand, India s biggest rival in medical tourism, medical visas are processed within three hours of applying in that country. Along with these formalities, the security checks of patients from certain developing nations take a relatively longer time than for patients from other countries causing a great delay in treatment.

b. **Need for Huge Investment Initiatives:** As per CII-McKinsey & Company Report 2002, in order to effectively serve the foreign nationals, the health infrastructure needs to be uplifted. India needs at least 750,000 extra beds to meet the demand for inpatient treatment by 2012-opportunity in tertiary healthcare facilities. To raise this infrastructure, total additional investment to the tune of US$ 25-30 billion is needed by 2012. Government and international agencies will only be able to gear up a limited sum and the rest of investment has to come from private sector.

c. **Quality Certification International Accreditation:** There is no Indian certification policy like ISO for the hospitals and Medical Centers operating in India. Most of the Indian hospitals lack accreditation by international quality monitoring bodies like Joint Commission on Accreditation of Healthcare Organizations (JCAHO)/ Joint Commission International (JCI). The gradation system is either missing or a far from perfect. In addition, top Indian hospitals have high infection and mortality rates, and are unwilling to disclose data regarding these. International accreditation will ensure transparency in the way a hospital performs and everything from the operating to the cleaning procedures will be monitored, audited and recorded. Accreditation will even make tie ups with overseas health insurance agencies such as BUPA (British United Provident Association) and easier to route patients to India.

d. **Insurance Issues:** Basic medical insurance and sometimes extended medical insurance, does not pay for the medical procedure, meaning the patient has to pay cash. Most of the hospitals are not registered with known international health insurance companies like BUPA, an UK Based Health Insurance Company.

e. **Lack of associated Infrastructural facilities and Intersectoral Coordination:** One of the contributing reasons for the delayed response to the promotion of the Indian health tourism industry is the lack of infrastructural facilities like good roads, connectivity, proper sanitation, power backups, availability of accommodation (Rest/ Guest Houses) and other public utility services. Adds to this is an inadequate tie-ups between the travel agents, hotels and the health service providers.

f. **Meeting Expectations of Global Customers:** Another great challenge that the Indian hospitals face is overcoming the resistance of overseas customers to accept India as a quality Health Care Provider and assuring the foreign patients of such services carrying no hidden costs. The industry experts need to study the expectations of the customers and the factors that motivate the patients to choose India as a health care solution spot. The same would help the organizations to develop the foreign customer s decision making model in buying of Indian health care services.

g. **Promotion:** The third party intervention (travel agents and the internet sales) is an important tool to tap the foreign market. Moreover, Government of India and the ambassadors of the country can play a vital role in promoting health tourisms.

The major ways of promoting our health tourism could be:

State Tourism Corporations

- Tourism related websites
- Hospital promotional programs
- The third party services(Travel agents)
- Hospital tie-ups with international counter parts
- Insurance service operators operating in other countries

h. **Overemphasis on service packaging:** Over a period, it has been observed that with corporate houses entering the hospital business, the glamourisation of health care services has taken place. In order to woo overseas and high profile clients, packaging of services has become important. Hospitals are today giving more importance to ambience, dining facilities , luxurious accommodation and other add on services like having a bank counter, beauty saloons, flourists etc. The core function i.e., curing the sick and contribution to research may get neglected due to the same.

i. **Undefined Legal Policies:** A prospective medical tourist should also be aware of possible legal issues. There is presently no international legal regulation of medical tourism. All medical procedures have an element of risk. The issue of legal recourse for unsatisfactory treatment across international boundaries is an undefined issue at present.

j. **Competition** (from neighbouring countries): Countries that actively promote medical tourism include Thailand, Cuba, Costa Rica, Hungary, Israel, Jordan, Lithuania, Malaysia, Belgium, Poland and Singapore. These countries also offer competitive prices for international standards health care services with tourism attraction. Indian can compete in the global market by focusing on and promoting its core competencies like service oriented trained manpower, alternative therapies and the diverse geographical landmarks.

Conclusion

India is fast catching up with other countries in the trade of medical tourism. India not only has a pool of alternative therapies but there are top-notch centers coming up across the various states of India for a range of therapies. The medical centers in India have already identified the foreign ailing population as the key customers. The country has immense potential to attract the foreign nationals for treatment purposes. India can further build on its medical tourism capabilities by setting up standardized health solution and deriving appropriate consolidation strategies. The Industry also needs active promotional programmes and government support in terms of Tax holidays, increased FDI and reduced visa formalities for the customers. Leading business groups like Reliance, Apollo etc., can take the initiatives in the field of research and setting more technologically advanced health care services. A cohesive effort by the various sectors like travel, tourism and healthcare will further give an impetus to the upcoming industry thus placing India as one of the most preferred destination for healthcare.

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E-Business, Globalization and Human Resource Management: An Examination of Trends, Definitions and Directions

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Abstract: *E-business has brought in its wake a basic and dramatic transformation in the workplace characterized by legal, technological, socio-cultural, political and organizational upheaval of the old order. This paper attempts to examine how these changes have brought forth new challenges to the field of Human Resource Management and how certain conflicts need to be recognized and how changes in direction and definitions need to be implemented in order to make HRM more relevant to the new workplace. Issues of Core Competencies in HR are addressed.*

Introduction

The field of Human Resource Management has undergone a dramatic transformation during the last four decades. If we were to characterize each decade with a major broad brush trend or a defining characteristic albeit at the risk of oversimplification the 60 s can probably be largely described as representing the trash canf view of the HRM function. The 70 s could be viewed as the age of flux. During this period, the views on HRM have ranged from identity crisisf (Burak and Miller, 1976; Hoffman, 1978) to offering the promise of corporate heroismf (Meyer, 1976). The 80 s could be regarded as the age of renewal. Preoccupied with the need to meet the Japanese challenge, American managers renewed their interest in the Human Resource function during this decade. The 90 s can probably be best defined as the age of legalism, downsizing and globalism. Increased productivity, worldwide integration of markets, professionalism, technological changes and large-scale increases in span of control have led to downsizing, job insecurity, decline in wages, an aging workforce, dual careers and major changes in life styles. This has also been the decade of several pieces of legislation such as Americans with Disabilities Act, The Family and Medical Leave Act and Congressional Accountability Act.

What does the next decade hold for HRM? The workplace of the new millennium has been the subject of study by futurists, academics, scholars and practitioners alike. Two of the major inter-related and defining trends of the new millennium in the context of Human Resource Management are E-business and Global Employee Markets. Among the many fundamental changes predicted for the workplace of the future on account of these trends are: (a) Flexibility (b) Virtual Reality (c) Multi-dimensional diversity (d) Strategization of HR (e) Internationalization (f) Declining role of work in People s emotional lives and (g) Continuous Learning. Increasingly, the concept of core competenciesf in the HR field is being examined. It is not only important to know what an organization is doing wrong but also what it is doing right. The core competencies framework has long been used in the field of strategy, so it can be looked at from the perspective of HR as well.

What do these trends mean for the field of Human Resource Management (HRM)? What are the challenges, major directions and changes of course that one might expect? These are the questions that we shall try to examine in this paper. Firstly, we examine the core competencies framework. Then we examine trends in the HR field itself. As in any endeavor associated with predicting the future, there is

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necessarily a speculative component to some of the directions that we discuss in this paper.

The Core Competencies Framework

Sanchez and Thomas (1996) support the importance of the distinction between the static and dynamic perspectives regarding core competencies by suggesting that managing the building of core competencies may be a task that is intrinsically different from managing and leveraging existing ones. Consequently, different types of managers may be required for these two distinct tasks (Hitt and Tyler, 1991). Competition and non-industry environmental factors contribute to the dynamic nature of a firm s environment and hence to the value of dynamic representations of core competencies.

To survive and prosper, firms must adapt to changes in their environment in a timely manner. They must also be proactive in building those capabilities that will be required for the future. Due to industry or environmental changes, competencies that may be considered extremely important (core) in one context or historical era may not remain so in another. This may be true of firms in some Asian economies to the extent that the skills required for success have changed as a direct function of each firm s previous economic success and the greater effect global conditions have on them. Now, skills which lead to greater participation in the global economy may not create economic growth in the way they once did. Rather, now, the ability of firms to adjust to the rapid pace of economic change caused by e-business and globalization of workplace and the ability to compete directly with firms in developed economies may become more important. The formation of networks or virtual value chains can facilitate the flexibility of the individual firms comprising the networks and reduce the time it takes for them to respond to significant changes (Gnayawali and Madhavan, 2001).

Unique historical conditions as well as causal ambiguity and social complexity contribute to changing firm strategies (Lippman and Rumelt, 1982; Reed and DeFillippi, 1990). Due to the flexibility inherent in their application, intangible resources and capabilities are most likely to confer adaptive characteristics on firms which are particularly important in turbulent environments. Tangible resources remain important, but it is the new application and uses of these tangible resources in response to new conditions and circumstances that drives profitability and in some cases, survival.

Static perspectives of core competencies are most applicable in extremely demanding environments where short-term issues are paramount. For example, a firm with a large international exposure facing a volatile foreign exchange market may need to focus entirely on the management of this situation in order to survive in the short run. In the long run, however, firms must also employ dynamic perspectives, so that their competitive position does not erode. Generally, existing capabilities require augmentation in response to new conditions. The nature of the competitive environment determines the appropriate blend of static and dynamic perspectives on core competencies. Both perspectives give insight with their differing emphasis reflecting the competing objectives of striking a proper balance between the development of new competencies and the improvement of existing ones (Penrose, 1959; Wernerfelt, 1984). The balance between a focus on present and future firm capabilities is reflected in the firm s level of organizational flexibility especially when changes in one part of the world tend to have a ripple effect on organizations in other parts of the world. E-business acts as a medium through which such changes are transmitted.

The logic of core competencies is extended here beyond the building and maintenance of only firm-specific capabilities to also include the importance of leveraging the core competencies of others. In a highly interconnected global economy, this is accomplished through the introduction of a network perspective on core competencies.

Structural and Sectoral Changes

Society is generally analyzed and conceptualized in terms of four sectors: the technological sector, the economic sector, the socio-cultural sector and the political sector each with a dynamic of its own (Fombrun, 1982). Flexible manufacturing systems, artificial intelligence, robotics and real-time interaction between members of geographically distant units are but some examples of developments in the technological sector. Blurring of lines between foreign and domestic competition, impact of the Asian economic crisis on the US economy are similar examples of the interconnectedness in the economic sector. Likewise, some examples of the political and socio-cultural developments relevant to the HRM function are: Hiring of TCNs (Third Country Nationals) by American MNCs, increasing awareness of the human issues surrounding sweatshops, treatment of child and women workers, international intervention on the violation of intellectual property rights in China, economic sanctions and rewards based on enforcement of human and political rights by the developed countries.

Moving Away from Cost-Benefit Utilitarian Analysis

These macro influences aside, organizations are undergoing drastic, visible and pervasive changes in their structure, their process and their very essence of being. The workplacef of the new millennium is characterized by multiple interactions of technology, workflow, people and finally, fluidity of structure as well as strategy. This calls for an ability to reach and extend beyond the boundaries of the organization, to see not only trends and problems, but new possibilities and to prepare a repertoire of capabilities rather than contingency plans for different scenarios. For example, organizations as we know them today can very well become obsolete in the near future. Constraints of physical space, product lines and pool of existing human talent will fast disappear as they indeed are beginning to disappear and we need to begin to think in terms of managing relationships rather than fixed resources, creating possibilities rather than exercising control mechanisms over what is in existence. This description is quite vague, but there are two aspects of this description that need to be mentioned: first, it is necessarily vague; second, it will continue to be even vaguer.

In a recent article, Stewart and Thomas (1996) asked this question about HRM: Why not blow the sucker up?f The new millennium will see many versions of the same question with perhaps fewer answers. A cost-benefit utility perspective will become more difficult to be implemented in the new workplace. The reasons are not far to seek. We see a proclivity toward ethical values and moral symbolism as opposed to tangible monetary gains and results.

Conflict of Cultural Values

The Human Resource Management function has come a long way since the days of Frederick Taylor, the father of Scientific Management, who firmly believed in separation of planning from the doing.f Taylor openly reiterated his belief that any improvement that the shop floor worker dared to come up with on his own over and above the management s blueprint of the one best wayf was fatalf to success. Taylor s views, shared by Henry Ford and his contemporaries, looked upon the pool of human resources as little more than able bodies needed to keep the production lines moving smoothly along the design lines.

This is of course, a matter of historic interest at this time. Organizations today are moving *en masse* in the direction of participative management or at least what they *espouse* as participative management no matter whether such moves are called teams, TQM, Quality Circles. By contrast, the move toward teams and empowerment seems to be going equally overboard (Korukonda, Watson and Rajkumar, 1999; Korukonda, 1998; Korukonda and Watson, 1995).

There seems to be little attention paid to the basic conflict of cultural values between the move toward teams and the high premium placed on individualism in the U.S. Also, the United States is clearly achievement oriented (a value shared with Japan) whereas a strong proclivity toward nurturing orientation seems to prevail in such countries as the Netherlands, Sweden, and Denmark (Hofstede: 1993, 1983). Although there is not much of recognition of this fundamental conflict in either the scholarly literature or the practitioner literature, one of the challenges for the Human Resource Management function in the new millennium will be to manage this conflict conflict between the move toward teams and the individualistic value system in the U.S.

Toward Redefining Value

Ulrich (1998), in a matter-of-fact assessment of the contribution of the HRM function to date, declares: And as much as I like HR people I have been working in the field as a researcher, professor and consultant for 20 years I must agree that there is good reason for HR s beleaguered reputation. It is often ineffective, incompetent and costly; in a phrase, it is value sapping. Indeed, if HR were to remain configured as it is today in many companies, I would have to answer the question above (should we do away with HR?) with a resounding Yes abolish the whole thing!f.

Past and future changes in the legislative milieu have already increased the mass of critical contribution by the HRM function to organizational survival and success. It is worth noting that the shift from Value-Sapping to Value-Adding role for HRM has already been facilitated to a large extent by some of the structural and demographic changes in the U.S.

An organizational unit s contribution to the value-adding role is obviously a function of how we define value since there is no absolute definition of value-adding vis-à-vis value-sapping activities. We believe this realization is very important because of the all-too-frequent references to the worth or value of the HRM function. This criticism is not well justified and serves little function except to put HRM professionals on the defensive and in a seemingly endless search to justify their existence.

An analogy with the accounting function will help. Does Accounting really add value to the firm? The answer, of course, will depend on whom you ask and the extent of tax regulation and enforcement in the legal environment of the country in question. In the United States, the legislative provisions covering the equal employment opportunity, minimum wages, sexual harassment, occupational safety and health, disabilities already provide enough areas of distinct competence for the Human Resource Managers to make a difference to the organization s performance and compliance. However, performance in these areas is similar to the hygiene factors in Maslow s Hierarchy of Needs Theory: providing what is expected as a matter of course. This does not mean they are not value-adding. All it means is that it calls for a redefinition of what is value-adding.

Women and Corporate Leadership

Nearly three decades ago, Sharu Rangnekar, a U.S. trained Indian Manager, took Indian corporate culture to task for its inability to tolerate a woman CEO, while being fully supportive of a woman Head of State, who happened to be Prime Minister Indira Gandhi at that time. That the same criticism applied to other countries such as Sri Lanka, Britain, and Israel, albeit to varying degrees at that time, is not as spectacular as the fact that it applies to the United States to a large extent even now, as we are well into the new millennium.

As an indicator of the glass ceiling for women in positions of corporate leadership, it is worth noting that although women constitute about 46 per cent of the US labor force, they represent only 10 per cent of all corporate officers and about 0.2 per cent of Fortune 500 CEOs (Martinez, 1997). Many of the women who deserve, but are denied a position of corporate leadership, end up leaving the organization for starting their own businesses or move to an organization with a more level playing fieldƒ according to a survey by *Catalyst*, a New York-based research organization. E-business, virtual workplace and their amenability to functioning without a human face, much less a gender, can be expected to accelerate an increase in the percentage of women occupying positions of corporate leadership. This, together with the slackening of entry barriers brought about by Internet technologies, can be expected to bring about an increase in the percentage of women in entrepreneurial roles.

Internationalization of HRM

In the current age of globalization and internationalization of e-business, a disproportionately smaller investment of time and effort is being invested in internalization of the Human Resource Management function. As *Campanello*, an Arlington-based HR strategy consultant has pointed out, Globalization is given, but we have not said much about the implications of that. Globalization, for example, means that business goes on 24 hours a day. This has profound implications for the way work is done. Look at the Internet commerce company Verifone, which has attempted to design the work to be handed off from time zone to time zone, so that it follows the daylight around the globe. What does something like that do to the organization s acquisition and location of talent?ƒ (Kemske, Floyd 1998).

Developing and administering plans, policies, and practices across national boundaries for different HR functions such as staffing, performance appraisal, compensation, labor relations and safety is compounded by the broad range of variation in government regulation, union activity and cultural expectations to mention just a few variables. Choice of different recruitment strategies , differential costs of living, different perceptions of the role of employers, changing political environments across countries, different levels of enforcement of intellectual property rights and shop rights, add to the complexities of the issue that need to be addressed in the future. The growing importance of internationalization of HRM function is beginning to be recognized (Black, Gregersen and Mendenhall, 1992; Dowling, Schuler and Welch, 1994; Fulkerson and Schuler, 1992; Phatak, 1992; Schuler, Dowling, and DeCieri, 1993). This is a direction that holds a great deal of promise for the HR Manager of the next millennium by virtue of its sheer complexity.

Conclusion

The directions for HRM chalked out in this paper may present just the tip of the iceberg. Many other challenges, ambiguities and frustrations that have been endemic to the HRM function will probably continue into the e-business of the new millennium. There is an intrinsic ambiguity in managing people, maintaining ethical obligations, preserving democratic processes and promoting values. These activities are qualitatively different from say, acquiring a technology, implementing a statistical quality control process, or mechanical redesign of work.

As Nancy Coombs, president and CEO of HR Enterprises Inc., a Louisville-based consulting firm has pointed out, The internet is a godsend to the human resource management process. It speeds things up and makes it easyƒ (Spalding, 2001). Similar sentiments abound among HR professionals about the endless possibilities being opened up for addressing HR issues through internet applications. Some examples include cybercasting for training, self-serve options for 401 (k) plans and for management of health care information and options and use of push technologies for notification and timely delivery of pertinent information to the employees. At the same time, concerns about such issues as privacy and confidentiality are emerging. On balance, e-business is playing a fundamental role in redefining and reshaping the role and status of the HRM function. Against this background, HRM professionals will do well not only to accept and implement the emerging technologies of e-business in the virtual workplace, but to extend and integrate the same technologies to the traditional brick-and-mortar organizations. This will be a refreshing contrast from a long-standing tendency among the bulk of the HR professionals to engage in an endless defensive that is bound to perpetuate their status as a nonproductive or counterproductive beast of burden in e-business environment populated by organizations that are increasingly priding themselves on if not finding it necessary to survive by-being lean and mean.

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Preference and Pattern of Investment in Mutual Fund

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Abstract: *The end of millennium marks 36 years of existence of mutual funds in this country. The ride through these 36 years has not been smooth. Investor's opinion is still divided. UTI commenced its operation from July 1964. The impetus for establishing a formal institution came from the desire to increase the propensity of the middle and lower groups to save and to invest. UTI came into existence during a period marked by great political and economic uncertainties in India. With war on borders and economic turmoil that depressed the financial market, entrepreneurs were hesitant to enter into capital market. The already existing companies found it difficult to raise fresh capital, as investors did not respond adequately to new issues. Earnest efforts are required to channelise the saving of the community in to productive uses in order to speed up the process of industrial growth. The study is based on comparison of mutual fund with other investment options, investors perspective, product awareness, brand acceptance, perception about the services provided by the mutual fund, priority analysis and information of risk associated with mutual fund. The study reveals that mutual fund has comparative advantage over other options.*

Introduction

Mutual Fund (MF) is an Institutional arrangement, which mobilize savings of millions of investors for investment in a diversified portfolio of securities with a view to spreading risk and ensuring adequate and consistent returns, both in the form of dividend and capital appreciation. It is a financial intermediary that receives money from shareholders, invest it, earn on it and makes it grow to share it with them. Professional managers who make portfolio investment decision on behalf of unsophisticated investors manage these institutions. It is essentially a mechanism of pooling together savings of a large number of investors for a collective investment with an appreciation. Thus Mutual Fund is a collective investment scheme designed to provide benefits of diversified investments with reduced risks and expert investment management to a large number of investors through institutionalized risk pooling mechanism. Infact, time is money in investment management. Managing time and money are crucial in investment management. Mutual Funds are the organizations that manage the funds of small investors who do not have the adequate amount of experience and expertise to cope up with the complexities of investment instruments, tax laws, corporate performance, stock market behaviors etc.

Mutual Funds professional managers are not only required to identify growth stocks but also deploy the limited resource at appropriate time and switch one stock to another to reap maximum return. Mutual Funds play vital role in resource mobilization and their efficient allocation throughout the world; these funds have played a significant role in financial intermediation, developments of capital market and growth of the corporate sector as a whole. The active involvement of Mutual Funds in economic development can be seen by their dominant presence in the money and capital market world over. Their presence is, however, comparatively stronger in the economically advanced countries. Mutual Funds as efficient allocators of resources play a vital role in transitional economy like India.

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Emerging scenario of mutual funds in India

Mutual Funds mainly operate on the basis of two basic principles namely diversification and optimization of portfolio returns. Indian Mutual Funds prefer to hold to large number of stocks, which of course, changed to some extent in some of the private sector and foreign funds. The diversification strategies adopted by Mutual Funds shows that the funds, which were earlier following a large-scale diversification have started focusing on a few selected stocks.

There are two reasons for the change. First, the corpus available with many schemes is limited today due to many Mutual Funds in the market competing with each other to share the investment surplus and general reluctance on the part of the investors investing in Mutual Funds. Second, the number of potential sector of investment has also come down due to long recession prevailing in the market. The funds with large corpus have also started restructuring the portfolio to bring the number of stocks to manageable level. Many public sector funds have also gone through the restructuring exercise after noticing the high performance of some of the new entrants like Allianz, who have not only restricted the number of stocks in the portfolio but also resorted to frequent revision. The Mutual Funds, which have shifted the focus from highly diversified to focus investment with frequent revision, have shown relatively better performance in terms of excess earning over and above the benchmark. It may be a desirable feature to have a limited number of stocks but if selection is improper, this strategy may add disproportionate risk to the portfolio.

Objectives of the Study

- To find out awareness of the investor about Mutual Fund.
- To study the factors affecting the investment decision in the Mutual Fund.
- To study the preference of investment in Mutual Fund, than other investment products.

Research Methodology

The major focus is to explore various factors, which might influence investor s behavior and also to know view of brokers who are involved in selling MF and other products. Descriptive studies are under taken in many circumstances. When the researcher is interested in knowing the characteristics of certain groups such as age, sex, educational level, occupation or in knowing the proportion of in growing population where investors behave in a particular manner, what is the reason of their investment in particular MFs and other products.

In our case though a limited scope has been taken to project the behavior of respondents who behaved in a particular manner. But the case has been taken to cover the population, age, sex, occupation and income wise in an effective manner. Primary data as well as Secondary data both have been made available for the information. Primary data has been generated through survey method. Information was collected on representative sample basis. Individual investors were asked questions verbally or through structured questionnaire. Brokers at regional and national level filled questionnaires. Various other factors have also been taken in to account while conducting the survey like:

1. Size of investors.
2. Characteristics of the investors.
3. Time/cost.
4. Brokers at all level whether regional or national.

A pattern of personal interview was also adopted in the survey method to collect primary data. In personal interview potential respondents were asked specific questions. Special care was taken to avoid any kind of inconvenience to respondents by making a prior appointment for the interview, avoiding the presence of third party and keeping the interview on track. Secondary data has been obtained through magazines, newspapers and through different sites. It has proved to be a great source of information.

Mutual Fund Schemes

A mutual fund may float several schemes, which may be classified in three categories as follows:

Category I:

1. **Open-ended funds** -this scheme is open for subscription all through year. An investor can buy or sell the units at Net Asset Value (NAV) related price at any time.
2. **Close ended funds** -this scheme is open for subscription only during a specified period, generally at the time of initial public issue. This scheme is listed on the stock exchanges where an investor can buy or sell the units of this type of scheme.
3. **Interval funds** -this scheme combines both the features of open ended and close-ended funds.

Category II:

1. **Growth funds** -this scheme is to provide capital appreciation over the medium to long term, in other words this is an ideal scheme for the investor seeking capital appreciation for a long period.

2. **Income funds** -objective of this scheme is to provide regular and steady income to investor.
3. **Balanced funds** -objective of this scheme is to provide both, growth and regular income to investor.
4. **Money market fund** -objective of this scheme is to provide easy liquidity, regular income and preservation of income.

Category III:

1. **Tax saving scheme** -objective of this scheme is to offer tax rebate to the investor under the provision of Income-tax law.
2. **Industry specific scheme** -this scheme invests only in the industry specified in the offer document of the schemes.
3. **Sectorial schemes** -this scheme invests particularly in specified industries or in initial public offering.
4. **Index schemes** -such schemes link with the performance of BSE sensex or NSE sensex.
5. **Load funds** -this scheme charges a commission each time when you buy or sell units in the funds.
6. **No- Load funds** -this scheme does not charge commission each time when you buy or sell units in the funds.

In the present scenario investors have many investment options but the investment decision is affected by factors like return, safety volatility, liquidity, simplicity and tax benefits.

Comparison of mutual funds with other investment options

Investments in mutual fund have inheritant advantage to investors. In the union budget 2003 dividend income has become tax-free in the hands of investors. Whether they invest in any fund the dividend is always tax-free in the hands of investor. So, the comparison of different option is not valid for all the time as the financial markets are now deregulated and dynamic, causing frequent changes in comparative returns from time to time. Each year MFs and its option may give different returns; for example when the bank increases or reduces the deposit interest rate, the MFs performance may look better or worse. If the government further reduces PPF interest rate, again there will be an impact on the comparative status of different options. Similarly the individual tax-payer situation may change where by he may pay higher or lower tax on his income. Thus, the following study undertaken aims at highlighting the advantages of investing in mutual funds as well as to analyse its status.

Table 1. Comparison of Investment Option

	Return	Safety	Volatility	Liquidity	Convenience
Equity	High	Low	High	Higher of Low	Moderate
F. I. Bonds	Moderate	High	Moderate	Moderate	High
Corporate Debentures	Moderate	Moderate	Moderate	Low	Low
Company Fixed Deposits	Moderate	Low	Low	Low	Moderate
Bank Deposits	Low	High	Low	High	High
Life Insurance	Low	Moderate	Low	Low	Moderate
Mutual	High	High	Moderate	High	High

Table 2. The Investor Perspective: Funds versus other products

	Investment Objective	Risk Tolerance	Investment Horizon
Equity	Capital appreciation	High	Long term
Corporate Debentures	Income	H-M-low	The same
Company Fixed Deposits	Income	The same	Medium
Bank Deposits	Income	Generally low	Flexible
Life Insurance	Risk cover Low	Low	Long term
Mutual Funds	Capital growth income	H-M-low	Flexible all terms

Liquidity is more desired by the investors because they do not want to block their investments. They want to switch their investment into other better investments according to the change of investment policies and better returns. They are more attracted towards tax saving schemes provided by the different schemes.

Results

Product awareness

An overwhelming majority (85%) of the respondents have been found to be aware of the product for more than a year, whereas 10 per cent of them have come to know within a year only and hardly 5 per cent of the respondents have come to know about it within six months (Figure 1 & Table 3).

Table 3. Showing Product Awareness

Time	Percentage of people
For last six month	05
For last one year	10
More than a year	85

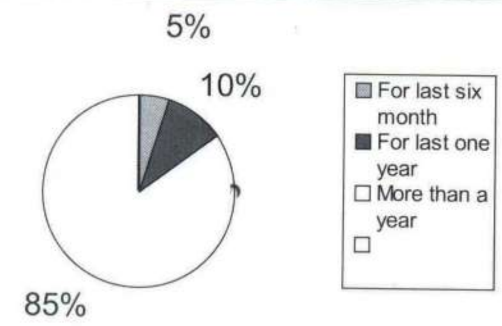

Figure 1. Perception of services rendered by mutual fund

Brand Acceptance

Out of 50 respondents, 40% had SBI mutual funds in the top of their mind while other Pvt. Mutual funds like ICICI, HDFC, Birla Sun Life, Franklin Templeton had 10%, 15%, 20%, 10% of acceptance and other mutual funds have got 5% of acceptance (Table 4).

Table 4. Showing Brand Acceptance

Top of Mind Analysis	Percentage of people
SBI Mutual Funds	40%
Prudential ICICI	10%
HDFC	15%
Birla Sun Life	20%
Frankin Templeton	10%
Others	5%

Product Performance Analysis

Product performance has remained satisfactory, around 70% of the respondents have graded it as good and rest 30% favored its performance as excellent (Table 5).

Table 5. Product Performance Analysis

Responses	% of respondents
Good	70%
Excellent	30%

Perception about the services provided by mutual fund

Respondents want their complaints to be properly addressed, through phones and other such media within reasonable time. Investors are satisfied with the services provided by the mutual fund by informing the information about the mutual fund to respondents by systematic way like giving a proper presentation of the schemes. If he has any type of complaint then there is a proper system of noting to complain on a telephonic call and to rectify it in a reasonable time. The satisfaction level among the investors is high, 90% of the respondents are in satisfaction bracket. 60% say they are satisfied, whereas 30% are extremely satisfied. 8% are dissatisfied and just 2% of the respondents are extremely dissatisfied (Figure 2 & Table 6).

Table 6. Perception about the services provided by mutual fund

Responses	% age of population
Satisfied	60%
Extremely satisfied	30%
Dissatisfied	08%
Extremely dissatisfied	02%

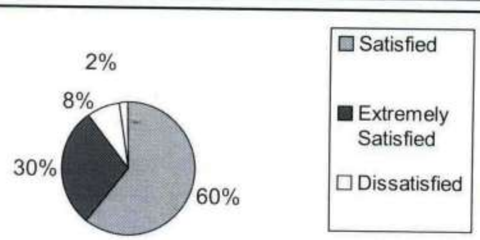

Figure 2. Perception of Services Rendered by mutual fund

Priority Analysis

This deals with the order of purchase to find out in what order mutual fund is purchased by the investor in comparison to other investment options such as Bank FDs, Insurance Scheme, Shares, Government Bonds, Post Office Schemes, Pvt. Financial Institutions, Debentures and Other Bank Schemes (Table 7). The analysis is as follows:

Table 7. Investment product result ranks

Investment product result	Ranks											
	I	II	III	IV	V	VI	VII	VIII	IX	X	XI	XII
Mutual Fund	10	7	9	4	11	6	-	3	-	-	-	-
Bank FDs	1	4	6	8	10	11	10	-	-	-	-	-
Insurance scheme	11	9	7	6	4	9	4	-	-	-	-	-
Shares	2	5	6	1	7	1	6	8	10	-	4	-
Govt. bonds	8	7	9	4	3	10	9	-	-	-	-	-
Post office schemes	5	7	4	6	7	2	7	10	-	2	-	-
Pvt. Financial institutions	-	-	1	7	-	-	6	9	12	8	5	2
Debentures	-	-	-	1	-	-	2	5	7	15	13	7
Other Bank schemes	-	-	-	-	2	-	1	2	4	5	8	28

Insurance is the most preferred investment option. When compared to other products mutual fund is ranked third. Out of 50 respondents 11 preferred insurance as 1st option, 9 as 2nd option and 7 people 3rd option and then followed by 6, 4, 9 & 4 respondents at 4th, 5th, 6th and 7th preference. Whereas ten respondents prefer mutual fund, as 1st priority, followed by 7, 9, 4, 11, & 6 people preferring it as 2nd, 3rd, 4th, 5th & 6th option. However, three people have said it to be as 8th option.

Ranking of investment preference in mutual fund is third while investor is more attracted towards investment in insurance scheme than mutual fund. But in comparison to other investment product mutual fund is much better option for the investor.

Information of risk associated with mutual funds

Almost 85% of the respondents are informed of the risk associated with the investment in mutual fund and 10% of the investors lack proper information of the risk factor. Only 5% of the respondents are partially informed about the risk (Table 8).

Table 8. Information about Risk Factor associated with Mutual Funds

Risk Factor	% Age backup
Known	85%
Not known	10%
Partially	5%

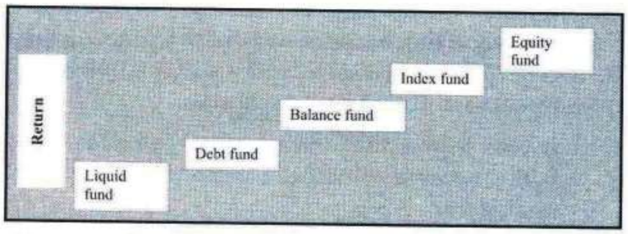

Figure 3. Risk and return associated with different types of funds

Future prospects of mutual funds in India

There is a significant increase in rate of saving in India. Trend in saving of Household sector which constitute nearly 75% of gross domestic saving, shows that there is a significant shift in investor s performance from physical to financial asset. With the entry of new players in the financial markets, the investors will find several new instruments matching their varying needs and risk return perception. Change in the economic scenario, falling interest rates on bank deposits, volatile nature of capital market and recent bitter experience of investor in making direct investment emphasize the increasing importance of intermediaries like Mutual Funds.

The emerging challenge for Mutual Funds managers in coming years is to convert first timer into regular Mutual Funds unit buyers. According to the Steward Aldcroft, Managing Director of Invested Asset Management Asia, the people who bought guaranteed products were mainly servers and will not have invested all their assets. So there is a good opportunity to get more of their money invested into Mutual Funds*f*. Infact when market volatility is expected to be high, variation on the guaranteed items are likely to be winners. Therefore, many firms are banking on the non- correlated, absolute return, appeal of hedge funds even coupling that with a guarantee.

Conclusion

The study is based on comparison of mutual fund with other investment options, investors perspective, product awareness, brand acceptance, perception about the services provided by the mutual fund, priority analysis and information of risk associated with mutual fund. The study reveals that mutual fund has comparative advantage over other options. It has high return, high safety, high liquidity and high convenience with moderate volatility. Public is comfortably aware about the mutual fund. When the product is compared to other investment options it is ranked as third most preferred option, insurance and government bonds having first and second positions. In brand acceptance analysis, SBI mutual fund has the highest acceptability. Mutual fund has comparative advantage in terms of better return, safety and liquidity. On the basis of collected information, it has been found that brokers and distributors engaged in marketing of mutual fund both promote the investment in mutual funds products.

1. It was found that their equity schemes were failing because of inefficient management of fund managers.
2. They must advice their investors to invest in debt funds as it gives them a proper return of 10 to 14%, as other schemes are giving a negative return.
3. Though the public is aware about mutual fund, they are reluctant to invest in it.
4. However, the competition is basically from Insurance as its preference is on top priority.
5. The product performance is satisfactory.

After such a long deliberation, following recommendations are made:

1. As the equity market is booming, mutual fund managers must improve their efficiency to capture the market.
2. At the time of market volatility, the investor should not be panic and hostile in investment.
3. If the investors do not want to play with risk in equity funds then it is better to invest in debt funds schemes, which gives consistent return and safety of their principal amount due to diversified investment and well managed credit risk and liquidity.
4. Though the awareness level is high, still it is recommended that awareness programmes may be undertaken.
5. The mutual fund marketing executives must assure that the investors are completely informed of all the aspects, so that in case of adverse situations they may not feel trapped.

Mutual fund is an ideal investment vehicle for today s complex and modern financial scenario. The market for equity shares are very much risky as its NAV fluctuates very fast, it is volatile. So it is advised to only those investors who are ready to bear risk and have sufficient knowledge regarding equity share market.

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Organizational Commitment: A Comparative Study of Manufacturing and Service Organizations

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Abstract: *Organizational commitment is an upshot of organizational culture essential for the upward trend of an organization. The present study is designed to focus on organizational and personal characteristics as factors affecting organizational commitment among employees of the various organizations and to assess the level of employee commitment in selected industries of Gwalior and to identify and investigate the difference between manufacturing and service organizations on the basis of organizational commitment. This research is a voyage, starting with a set of objective to assess the level of commitment prevailing in various organizations. To assess the level of commitment prevailing in various organizations, a comparative and objective survey of individual were conducted mainly in the region of Gwalior. All the data thus obtained was analyzed, coupled with some management tools to formulate strategies that are complementary to the objectives given. The conclusion of the study revealed that organizational commitment of employee is largely affected by the performance appraisal and the next factor which affects the level of commitment is the job content and the last factor is scope of advancement. The results of the data analyses revealed that out of eleven factors considered for this study, eight of them have shown no difference between manufacturing and service organizations while three of them show significant difference.*

Introduction

Organizational commitment is an upshot of organizational culture essential for the upward trend of an organization. Committed people will devote their time, money, endurance, persistence, loyalty and ingenuity for the upliftment of their organization. Organizational commitment has emerged as one of the most important variable in the study of management and organizational behaviour. This is because of the growing existence as to relationship between organizational commitment and employee punctuality, attendance, turnover, success of organizational change and above all the over all performance of an organization. It is contended that the ideas put forward to provide a description of each of these commitment forms are as follows:

1. **Affective Commitment** involves the employee s emotional attachment to, identification with and involvement in the organization. Employees with a strong affective commitment continue employment with the organization because they want to do so.
2. **Continuance Commitment** involves commitment based on the cost that employee associate with leaving the organization. Employees who perceive the cost of leaving the organization is greater than the cost of staying remain because they need to do so.
3. **Normative Commitment** involves the employees feeling of obligation to stay with the organization. Employees with the high level of normative commitment stay in the organization because they feel they ought to.

With the nineties coming to a close industrial organization are under severe pressure to be innovative and productive so as to remain competitive

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in the global market. Besides interventions like diversification, technology acquisition and introduction of new systems, it has been observed and also proved by research that eventually much of the results depend upon the human inputs. The progressive organizations are today more anxious than ever before to get their employees to identify more closely with the organizational objectives and values.

In organizational theory and research, attempts to predict the behaviour of individual workers in organization have focused on organizational commitment as a crucial psychological factor. The work commitment / work culture / work attitude is the single most important factor in getting work done/ achieving higher output. This is the most important differentiating factor between those who are mediocre. Management cannot stand behind people every second of the day to check that they are giving their best. Creativity and innovation cannot flourish in an organization where the Boss is always right and the employee is treated as an automat, half-wit or loafer. This in turn requires a management style that has positive attitude towards its workers and provides a leadership that creates commitment.

In the era of globalization, organization of market economies face strong pressure to be both efficient and produce value added outputs. The goal of efficiency and competitiveness can be attained if organizations possess the right people with the right attitudes and skills. Organizations have realized that their survival largely depends upon their ability to attract, motivate and retain the key talent needed to meet aggressive business goals and gain competitive edge. While the factors, such as capital, equipment and other resources are important for organizational success and thrive; the human factor appear to be the most important one since it is the people who have to use all the other resources. Without the productive efforts and full-hearted engagement of workers, the material and resources of the organization would be of no use. Not even the latest technologies would be able to produce the targeted results for the organization without the right result for the organization without the right people with the right attitude to utilize them.

As per Walker Information Global Network, 2001, several respected research and consulting organizations suggested that a committed workforce is a hallmark of a successful organization. Committed or dedicated employees are expected to be more productive and work with focus on quality to increase customer satisfaction and the profitability of their organization. In other words, committed employees are the salient resources and the foundation of any organization. Porter et al. (1974) have defined commitment as, the relative strength of an individual s identification and involvement in a particular organization. Mowday et al.(1979) defined organizational commitment in term of three factors: (a) a strong desire to remain a member of a particular organization; (b) a willingness to exert high levels of effort on behalf of the organization; (c) a definite belief in and acceptance of the values and goals of the organization. Commitment is also being defined as cost based commitment, where an individual assesses the perceived gains associated with continued membership of an organization and the perceived costs associated with leaving and the ultimate decision that is, leaving or staying is made based on its comparative advantage.

The concept of organizational commitment is that committed individuals do possess four common characteristics: a) internalization of the goals and values of the organization, b) involvement in the organizational role in the context of these schools and values, c) desire to remain in the organization over an extended period of time in order to serve its goals and values, and d) willingness to exert effort in the interest of organizations goals and values apart from the instrumentality of this effort for the attainment of the individuals and goals (DeCotiis and Summers, 1987). Simply stated, committed employees are likely to take pride in organizational membership, believe in the goals and value of the organization, create strong emotional bondage with their organization, show up on their work regularly and exhibit higher level of performance and productivity.

India being increasingly considered as one of the most important destination and key global players in business competition, it cannot afford to ignore the enhancement of organizational commitment among its organizational members. Therefore, organizational leaders are required to devote a substantial amount of time, energy and money to stimulate employees so that they become highly committed to their organization and to their organization s goals.

In the today s neck to neck racing business environment and service dominated organizational environment, committed employees are considered as the basic pillars of the business from both the management and customers perspectives. In such organizations, the employee s service orientation, work talent, creativity, innovativeness and drive keep the customers intact and the firms business flourishes. These are likely to happen if employees are committed to the goals of their organizations. Many empirical studies confirm that committed employees are more likely to perform better for their organization than less committed ones (Decottis and Summer, 1987). Some other researchers Mowday, et al. (1979) also reported that highly committed individuals are likely to be more productive and more satisfied than their less committed counterparts.

Literature Review

Several researchers have also examined the relationship between organizational commitment and certain organizational characteristics or HRM practices (Decotiis and Summers, 1987). Organizational rewards have been found to be positively associated with commitment (Wallace (1995); Florkowski and Schuster (1992). Luthans Wahl and Steinhaus (1992) have found that the perception of a supportive climate had a significant and positive relationship with organizational commitment. Florkowski and Schuster, (1992) found profit-sharing support to be an important determinant of organizational commitment.

In the last two decades, organizational commitment has received special attention and has grown in acceptance in the literature of industrial and organizational psychology and organizational behaviour. The literature search indicates that organizational commitment is linked to various antecedents ranging from personal variables and organizational characteristics. Organizational commitment is an important issue from both the conceptual and organizational aspect since it may be used to predict employee s absenteeism, performance, turnover and other behaviours. Most researchers conceive of commitment as involving some form of psychological bond between people and organizations. Becker (1960) and Weiner and Vardi, (1980). McGee and Ford, (1987) Meyer et al. (1990) offered evidence for the presence of other sub-dimensions of commitment, namely personal sacrifice and lack of alternatives. The findings by Dunham et al. (1994) were consistent with the research of Steers, (1977) that perceived job characteristics, organizational dependability and perceived participatory management contribute to create rewarding situations intrinsically conducive to the development of affective commitment.

It is contended that the organizational commitment of managers and other employees is essential for the survival and effectiveness of large work organizations because the fundamental responsibility of management is to maintain the organization in a state of health necessary to carry on its work. Effective management thus pre-supposes a proprietary concern, a sense of responsibility for and dedication to sustaining the well-being of the organization. In the absence of ownership as a motive for such concern, modern organizations have of necessity turned to the deliberate creation and protection of committed elites (Selznick, 1957; Perrow, 1972). Reichers (1985) contends that commitment has been significantly, negatively associated with turnover and to a lesser extent with other withdrawal behaviours such as decreasing performance and increased absenteeism and tardiness. Some researchers have found that side bets or sunk costs increase the commitment felt by long term organization members (Becker, 1960; Hrebiniak and Alutto, 1972).

Objectives of the Study

1. To develop and standardize a measure to evaluate organizational commitment.
2. To identify the organizational factors that influence organizational commitment.
3. To make a comparative assessment in the level of organizational commitment between service companies and manufacturing companies.
4. To provide basis for further research.

Research Methodology

Sample: The study was conducted in different manufacturing and service organizations located in middle India. For this purpose, 200 employees of middle and top level were contacted personally and requested to fill up a questionnaire comprising measures of organizational commitment. The questionnaire on a 7-point Likert scale, where 1 indicated Strongly Disagree and 7 indicated Strongly Agree consisting of 45 items has been used. Stratified random sampling technique has been used to collect data.

Tools for Data Analysis: Item to total correlation has been applied to check the consistency of various items used in the questionnaire (Table 1). Reliability methods like Cron bach alpha has been applied to the items. Underlined factors were found-out through Factor analysis (Table 2). Z- Test was used to compare organizational commitment of manufacturing and service organizations. Hypothesis has been formed for applying Z-test:

H0 : There is no significant difference between the organizational commitment of manufacturing and service organizations.

Manufacturing and service organizations were again compared on the basis of the presence of different factors. Z-test was again applied to compare these factors. Following hypotheses were formed:

Ho_1: There is no significant difference between the performance appraisal on organizational commitment of manufacturing and service organisations.

Ho_2: There is no significant difference between the job content on organizational commitment of manufacturing and service organisations.

Ho_3: There is no significant difference between the scope of advancement on organizational commitment of manufacturing and service organisations.

Ho_4: There is no significant difference between the values on organizational commitment of manufacturing and service organisations.

Ho_5: There is no significant difference between the job security on organizational commitment of manufacturing and service organisations.

Ho_6: There is no significant difference between the commitment on organizational commitment of manufacturing and service organisations.

Ho_7: There is no significant difference between the competency and development on organizational commitment of manufacturing and service organisations.

Ho_8: There is no significant difference between the recognition on organizational commitment of manufacturing and service organisations.

Ho_9: There is no significant difference between the empowerment on organizational commitment of manufacturing and service organisations.

Ho_{10}: There is no significant difference between the job satisfaction on organizational commitment of manufacturing and service organisations.

Ho_{11}: There is no significant difference between the sense of obligation on organizational commitment of manufacturing and service organizations.

Results & Discussion

Consistency Measure: Consistency of all the factors in the questionnaire was checked through item to total correlation. Under this correlation of every item with total was measured and the computed value was compared with standard value (i.e. 0.1453). If the computed value was found less than standard value then that statement was dropped and termed as inconsistent.

Reliability Measure: Reliability test was carried out by using SPSS software and the reliability value through Cronbach s Alpha method was 0.926 for 45 items. As reliability value is quite higher than the standard value that is 0.7, so all the items in the questionnaire are considered as highly reliable.

Factor Analysis: The raw scores of 48 items were subjected to Factor analysis to find out the factors that contribute towards Organizational Commitment. After Factor analysis, 11 factors were identified and these factors are described as follows:

1. Performance Appraisal: This factor has emerged as one of the most important determinant of organizational commitment in manufacturing and service organisation with a total variance of 26.505. Major items constituting this factor include chances of promotion, recognition, appreciation for good work, applicability of training etc. If we look at the references of other studies, it is clear that existence of a well-designed performance appraisal system and its implementation based on actual performance without any bias or partiality; use of appraisal data to decide about whom to promote, train or reward is inevitable.

2. Job Content: This factor has emerged as the next important factor of organizational commitment in manufacturing and service organization with a total variance of 7.358. Major items-feeling guilty, if leaves organization, job denies me to use my personal initiative or judgment in carrying out the work , current rate of pay is fair , I like the task I perform and manage the pressure related to my job well etc. Opportunities provided by the job for use of one s own ideas, doing different things, utilizing own abilities and finding challenge in work are important to make an employee highly committed towards organization. Job autonomy, job challenge, job clarity, job content and membership of a cohesive, effective work group have been found positively related to organizational commitment.

3. Scope of Advancement: This factor has emerged as the next important factor of organizational commitment in manufacturing and service organization with a total variance of 4.904. This factor includes-career opportunities in the organization, easy to find job in another department, scarcity of other job opportunities etc. If we look at the references of other studies, it is clear that provision of adequate opportunities for advancement and growth, existence of definite career development plans for employees help them perform better.

4. Values: This factor has a total variance of 4.101. This factors-constituting raises in my salary are based on how well I do the job, actions conducted by most employees are fair and honest, mutual trust and respect between People. It is supported by other studies that honesty in work and trust among employees makes them more committed to work in an organization as organizational values are positively related to commitment.

5. Job Security: This factor has a total variance of 3.651. This factor includes-enough development opportunities in the company, clear and consistent set of values that govern the way we do business, long term job security. Adequate job security and attractive retirement benefits, appreciation, training and education and welfare facilities makes employee more committed to work in an organization.

6. Commitment: This factor has a total variance of 3.597. This factor includes-I do not feel it would be right to leave my organization even if it is to my advantage , my life would be disrupted if I decide to leave my organization. If we look at the references of other studies, it is clear that organizational commitment helps to maintain positive feelings of a person towards the organization. It reveals that committed people will devote their time, money, endurance, persistence, loyalty and ingenuity for the betterment of their organization.

7. Competency & Development: This factor has a total variance of 3.2 which consisted of items like-having too few options to leave this organization, job requires me to use high level of skills, I have put so much of myself into this organization to consider working elsewhere, organizations problems are my own problems. Competency and development helps to measure the extent to which a person is allowed to take independent decisions on personnel matters relating to his subordinates such as recruitment, allocation and supervision of work, transfer, promotion, grant to leave and disciplinary action.

8. Recognition: This factor has a total variance of 3.097. Items constituting this factor includes-it would be hard to leave my organization even if I want to, Owe a great deal to my organization, I do not feel emotionally attached to this organization. If we look at the references of other studies, it is clear that recognition of sincere and hard working employees and of those contributing to the productivity and efficiency of the company help employees to perform better and makes them committed to work for the organization.

9. Empowerment: Total variance of this factor is 2.939. Items constituting this factor includes-I see myself with this organization 5 years from now, Opportunity to be a part of activities that promote my professional development.

10. Job Satisfaction: Total variance of this factor is 2.648. This factor includes items like-I would be very happy to spend the rest of my career in this organization; Value and beliefs in our workforce promote quality of work. Employees who are satisfied with their job and the working environment tend to be more committed towards an organisation.

11. Sens)e of Responsibility: This is the last factor of organizational commitment in manufacturing and service organizations and has a total variance of 2.409. This factor includes items-this organization has a great deal of personal meaning for me, sense of obligation towards organization s members.

Z -Test: To compare organizational commitment of manufacturing and service organizations, Z-test was applied. For that standard error was calculated by putting values of mean & standard deviation in the formula and after this, Z test has been applied to find out the significant difference between the organizational commitment of both the manufacturing and service organizations (Table 3).

Since, the z value i.e. 2.117172 was more than standard value 1.96, at 5% level of significance, therefore the null hypothesis is not accepted which states that there is no significant difference between the organizational commitment of manufacturing and service organizations.

Mean value of services organizations is higher than manufacturing which shows that employees of service organizations are more committed towards their company (Table 3).

Z -Test between Factors: Further the Z test was applied to evaluate the significant difference among the factors, explored during factor analysis of manufacturing and service organizations (Table 4).

- Since, the Z value in Ho_1, Ho_3 and Ho_7 was more than the standard value of Ø 1.96, at 5% level of significance, so the null hypotheses were rejected i.e. there seems to be a significant difference in the factors like Performance Appraisal, Scope of Advancement and Competency & Development. By comparing the Mean values of manufacturing and service organizations in terms of Performance Appraisal, Scope of Advancement and Competency & Development it seems to be clear that employee of service organizations get better opportunities for advancement. They develop faster in the organization in comparison to employees of manufacturing organizations. In general if we see it can be noticed that performance appraisal technique are better and transparent in service organizations.
- Since the value of Z in Ho_2, Ho_4, Ho_5, Ho_6, Ho_8, Ho_9, Ho_{10}, Ho_{11} was less than the standard value of Ø 1.96, at 5% level of significance, so the null hypotheses were not rejected i.e. there seems to be a no significant difference of the factors like Job Content, Values, Job Security, Commitment, Recognition, Job Satisfaction, Empowerment, Sense of Responsibility. These results shows that even manufacturing

organizations are working hard towards their employees which helps in creating a more committed workforce.

Conclusion

The study was conducted by means of fairly rigorous techniques. The present study also attempted to examine the difference of commitment between manufacturing and service organizations. The results of the data analyses revealed that out of eleven factors considered for this study, eight of them have shown no difference between manufacturing and service organizations while three of them show significant difference. The conclusion of the study revealed that organizational commitment of employee is largely affected by the performance appraisal which has highest value and the next factor which affect the level of commitment is the job content of the employees and the last factor is scope of advancement. This research gives an insight to the managers that commitment can be engendered by applying different management practices such as providing a great deal of liberty to employees to decide on their work, a high level of managerial support accorded to employees even to the extent of going out of its way, to share personal problems of employees, ensuring fairness of work-related outcomes etc.

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Table 1 . Showing items to total correlation

Items	Computed Correlation Value	Consistency	Accepted/ Dropped
1. This organization has a great deal of personal meaning for me.	0.171449	Consistent	Accepted
2. Staying with the organization is the matter of necessity.	0.141	Inconsistent	Dropped
3. Owe a great deal to my organization.	0.649185	Consistent	Accepted
4. It would be hard to leave my organization even if I want to.	0.491204	Consistent	Accepted
5. Have too few options to consider leaving this organization.	0.242699	Consistent	Accepted
6. I do not feel emotionally attached to this organization.	0.237993	Consistent	Accepted
7. I would feel guilty if I leave my organization.	0.558248	Consistent	Accepted
8. Organizations problems are my own problems.	0.453501	Consistent	Accepted
9. One negative consequence for not leaving the job is scarcity of other job opportunity.	0.355303	Consistent	Accepted
10. I would not feel like part of the family at my organization.	0.112667	Inconsistent	Dropped
11. I will not leave my organization as I have sense of obligation to its people.	0.64762	Consistent	Accepted
12. I do not feel it would be right to leave my organization even if it s to my advantage.	0.497619	Consistent	Accepted
13. My life would be disrupted if I decide to leave my organization.	0.564856	Consistent	Accepted
14. I would be very happy to spend the rest of my career in this organization.	0.525828	Consistent	Accepted
15. I have put so much of myself into this organization to consider working elsewhere.	0.558178	Consistent	Accepted
16. The job requires me to use high level of skills.	0.485378	Consistent	Accepted

Items	Computed Correlation Value	Consistency	Accepted/ Dropped
17. The job denies me to use my personal initiative or judgment in carrying out the work.	0.232551	Consistent	Accepted
18. The job is quite simple and repetitive.	0.25819	Consistent	Accepted
19. The job gives me freedom in how I do the work.	0.626206	Consistent	Accepted
20. This company is providing me with job specific training.	0.554952	Consistent	Accepted
21. Sufficient time is allotted for product and solution training.	0.619437	Consistent	Accepted
22. I can apply the training I receive in this organisation.	0.581765	Consistent	Accepted
23. There are enough development opportunities for me in this company.	0.444003	Consistent	Accepted
24. Sufficient money is allocated for product and solution training.	0.582395	Consistent	Accepted
25. There is a clear and consistent set of values that govern the way we do business.	0.487211	Consistent	Accepted
26. People in our organization mutually trust and respect each other.	0.608436	Consistent	Accepted
27. Value and beliefs in our workforce promote quality of work.	0.625529	Consistent	Accepted
28. The actions conducted by most employees are fair and honest.	0.583884	Consistent	Accepted
29. My current rate of pay is fair.	0.507117	Consistent	Accepted
30. The raises in my salary are based on how well I do the job.	0.48102	Consistent	Accepted
31. I am rewarded for the job well done.	0.497906	Consistent	Accepted
32. I am satisfied with my total benefits package.	0.535973	Consistent	Accepted
33. I like the task I perform and manage the pressure related to my job well.	0.556467	Consistent	Accepted
34. I believe that I have long term job security as long as I do my job well.	0.520086	Consistent	Accepted
35. I see myself with this organization 5 years from now.	0.500235	Consistent	Accepted
36. Opportunity to be a part of activities that promote my professional development.	0.468124	Consistent	Accepted
37. The supervisor never gives me any feedback.	0.310959	Consistent	Accepted
38. My supervisor recognizes an employee for work well done.	0.260924	Consistent	Accepted

Items	Computed Correlation Value	Consistency	Accepted/ Dropped
39. My supervisor always praises my performance.	0.617125	Consistent	Accepted
40. My chances for being promoted are good.	0.625821	Consistent	Accepted
41. There are enough career opportunities for me in this organization.	0.634253	Consistent	Accepted
42. Often job vacancies are filled by people, outside the organization.	0.59317	Consistent	Accepted
43. It would be easy to find a job in another department.	0.505768	Consistent	Accepted
44. An employee s career development is important to this organization.	0.517967	Consistent	Accepted
45. An employee from within the organization has better chance to get that job than someone else from outside.	0.442609	Consistent	Accepted

Table 2 showing factor analysis

Factor Name	Eigen Value		Variable Convergence/ Statement	Loading
	Total	% of Variance		
Performance Appraisal	11.397	26.505	40. My chances for being promoted are good. 38. My supervisor recognizes an employee for work well done. 39. My supervisor always praises my performance. 22. I can apply the training I receive in this organisation. 42. Often job vacancies are filled by people, outside the organisation. 37. The supervisor never gives me any feedback. 20. This company is providing me with job specific training. 24. Sufficient money is allocated for product and solution training. 18. The job is quite simple and repetitive. 19. The job gives me freedom in how I do the work. 32. I am satisfied with my total benefits package. 02. Staying with the organization is the matter of necessity.	.735 .636 .597 .597 .558 .556 .555 .448 .442 .385 .359 .388

Factor Name	Eigen Value		Variable Convergence/ Statement	Loading
	Total	% of Variance		
Job Content	3.164	7.358	07. I would feel guilty if I leave my organization. 17. The job denies me to use my personal initiative or judgment in carrying out the work. 29. My current rate of pay is fair. 33. I like the task I perform and manage the pressure related to my job well. 31. I am rewarded for the job well done. 21. Sufficient time is allotted for product and solution training.	.669 .631 .489 .417 .353 .323
Scope of Advancement	2.109	4.904	41. There are enough career opportunities for me in this organisation. 43. It would be easy to find a job in another department. 10. I would not feel like part of the family at my 09. One negative consequence for not leaving the job is scarcity of other job opportunity.	.722 .696 .605 .488
Values	1.763	4.101	30. The raises in my salary are based on how well I do the job. 28. The actions conducted by most employees are fair and honest. 26. People in our organisation mutually trust and respect each other.	.770 .726 .527
Job Security	1.570	3.651	23. There are enough development opportunities for me in this company. 25. There is a clear and consistent set of values that govern the way we do business. 34. I believe that I have long term job security as long as I do my job well.	.748 .684 .435
Commitment	1.547	3.597	12. I do not feel it would be right to leave my organisation even if it s to my advantage. 13. My life would be disrupted if i decide to leave my organization.	.737 .637
Competency & Development	1.376	3.2	05. Have too few options to consider leaving this organization. 16. The job requires me to use high level of skills. 08. Organizations problems are my own problems.	.709 .674 .656

Factor Name	Eigen Value		Variable Convergence/ Statement	Loading
	Total	% of Variance		
			15. I have put so much of myself into this organization to consider working elsewhere.	.447
Recognition	1.332	3.097	04. It would be hard to leave my organization even if I want to. 03. Owe a great deal to my organization. 06. I do not feel emotionally attached to this organization.	.755 .647 .401
Empowerment	1.264	2.939	35. I see myself with this organisation 5 years from now 36. Opportunity to be a part of activities that promote my professional development.	.856 .719
Job Satisfaction	1.138	2.648	14. I would be very happy to spend the rest of my career in this organization. 27. Value and beliefs in our workforce promote quality of work.	.670 .530
Sense of Obligation	1.036	2.409	01. This organization has a great deal of personal meaning for me. 11. I will not leave my organization as I have sense of obligation to its people.	.805 .406

Table 3 showing values of Z- TEST

Type	Mean	Standard Deviation	Square of Standard Deviation
Manufacturing	4.46284	0.614324	0.377394
Service	4.664083	0.660115	0.435752

Standard Error	0.095053
Z-VALUE	2.117172

Table 4 showing Z-Test on factors

S. No.	Factors	Z-Value	Mean	
			Service	Manufacturing
1.	Performance No.	2.016432	4.746296	4.490741
2.	Job Content	0.550042	4.659259	4.592593
3.	Scope of Advancement	3.177633	4.763889	4.327778
4.	Values	0.308444	4.825926	4.781481
5.	Job Security	0.191398	4.681481	4.651852
6.	Commitment	1.174426	4.683333	4.466667
7.	Competency & Development	2.85589	4.441667	4.030556
8.	Recognition	1.809983	4.551852	4.259259
9.	Empowerment	1.001217	4.327778	4.138889
10.	Job Satisfaction	-0.68184	4.694444	4.794444
11.	Sense of Obligation	0.186071	4.611111	4.583333

A Study of Disclosure Practices of Public, Private and Multinational Institutions in India

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Abstract: *Most companies today focus on "good" disclosure practices in their annual report. Corporate disclosures are the focus of an increasing amount of attention by accounting researchers. The aim of this paper is to relate the extent of disclosure in the annual reports of Indian public, private and multinational companies. The extent of disclosure is measured by an index based certain independent variables. Independent variables are measures of company size, leverage, profitability, ownership structure, internationality, auditor's size, percentage of fixed assets and industry type. Relations are assessed using chi square tests. The paper assesses whether there is a significant association between a number of independent variables and the extent of disclosure.*

Introduction

The Indian financial system comprises of four components. These are financial institutions, financial markets, financial instruments and financial services. Banks come under the financial institutions segment. Financial institutions are intermediaries that mobilize savings and facilitate allocation of funds in an efficient manner. In financial economics, a financial institution acts as an agent that provides financial services for its clients. Financial institutions generally fall under financial regulation from a government authority. Common types of financial institutions include banks, building societies, credit unions, stock brokerages, asset management firms and similar businesses. Financial institutions provide a service as intermediaries of the capital and debt markets. They are responsible for transferring funds from investors to companies, in need of those funds. The presence of financial institutions facilitate the flow of monies through the economy. To do so, savings accounts are pooled to mitigate the risk brought by individual account holders in order to provide funds for loans. Such is the primary means for depository institutions to develop revenue. Should the yield curve become inverse, firms in this arena will offer additional fee-generating services including securities underwriting, sales & trading and prime brokerage .

Characteristics and role of financial institution

Financial institutions are business organization serving as a link between saver and investors and help in the credit allocation process. Good financial institution is vital to the functioning of an economy. If finances were to be described as the circulatory system of the economy, financial institutions are its brain. They make decision that tells scarce capital where to go and insure that it is used most efficiently.

Lender and borrower differ in terms of risk, returns and terms of maturity. Financial institutions assist in resolving this conflict between lender and borrower by offering claims against themselves and in turn, acquiring claims on the borrowers.

Financial institution provides three transformation services.

1. Liability, asset and size transformation consisting mobilization of fund and their allocation by providing large loan on the basis of numerous small deposits.

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2. Maturity transformation by offering the saver tailor-made short-term claims or liquid deposit and so offering borrower s long-term loan matching the cash-flow generated by their investment:

3. Risk transformation by transforming and reducing the risk involve in direct landing by acquiring diversified portfolio.

Disclosure Practices

One of the major objectives of financial statements is to provide information to assist decision-making by both internal and external users. To achieve this, it requires proper disclosure of financial data and other relevant information, which is an important aspect of financial accounting.

Disclosure is defined as the process by which a business enterprise communicates with the outside world (McKinnon, 1984). Disclosure may also include an explanation or exhibit attached to a financial statement or embodied in a report containing fact, opinion, or detail required or helpful in the interpretation of that financial statement or report. Disclosure means giving information (which might commonly be kept secret) usually voluntarily, or to be in compliance with legal regulations or workplace rules. It is the component of the notice principle, wherein a company should make available its data handling practices and how it collects, uses and shares personally identifiable information. The information required by federal or state law to be relayed to the cardholder concerning the terms of the credit agreement. Disclosure must be made by the issuer before the first use of the card by the cardholder and must subsequently be included on all monthly statements and other documentation mentioning financial charges.

Through the disclosure process (financial reporting) a business enterprise communicates its operations and financial condition to outside parties and satisfies its legal accountability obligations. Investopedia says: to make investments as fair as possible for every one, companies must disclose both good and bad information. In the past, selective disclosure was a serious problem for investors because insiders would frequently take advantage of information for their own gain*f*.

Company

A company, in general is any group of persons united to pursue a common interest. The term is thus synonymous with association, but more often it is used specifically to identify associations formed for profit, such as the partnership, the joint-stock company and the for-profit corporation. A company is not necessarily a corporation and thus may not have a separate existence from its members. The following figure shows the types of companies (Figure 1).

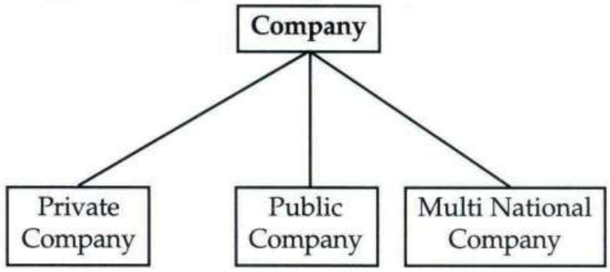

Figure 1. Types of Companies

1. **Public Company:** A company that has issued securities through an Initial Public Offering (IPO) and which are traded on atleast one stock exchange or over-the-counter market. These companies must file documents and meet stringent reporting requirements set out by the Securities and Exchange Commission (SEC), including the public disclosure of financial statements. Any company whose shares are available to the public is a public company.

2. **Private Company:** A company whose ownership is private and thus, does not need to meet the strict SEC filing requirements of public companies. Private companies may issue stock and have shareholders. However, their shares do not trade on public exchanges and are not issued through an IPO. In general, the shares of these businesses are less liquid and the values difficult to determine.

3. **Multinational Corporation ˇ MNC:** A corporation that has its facilities and other assets in at least one country other than its home country. Such companies have offices and/or factories in different countries and usually have a centralized head office where they coordinate global management. Very large multinationals have budgets that exceed those of many small countries. Sometimes referred to as transnational corporation*f*.

Nearly all-major multinational corporations are American, Japanese or Western European, such as Nike, Coca-Cola, Wal-Mart, AOL, Toshiba, Honda and BMW. Advocates of multinationals say they create jobs and wealth and improve technology in countries that are in need of such development. On the other hand, critics say that multinationals can have undue political influence over governments, which can exploit developing nations and can ever create a loss of jobs in their own home countries.

Literature Review

T.T. Ram Mohan (1999) evaluated returns to public sector bank stocks (PSBs) consequent to disinvestment by comparing these with respect to a reference index, namely, the 30-share Bombay Sensex. He then estimated the returns to Private sector bank stocks with respect to the reference index and used this data to compare Public and Private sector banks performances. This study supplemented earlier studies (including his own) that have compared Private and Public sector bank performance by looking at standard financial ratios. Comparisons of bank s performance based on financial ratios suffer from the problem that financial ratios might overstate performance because of inaccurate reporting of NPAs (Non-performing Assets) or because NPAs tend to be lower in the initial years in the case of newly established banks. Stock prices may, however, captured performances more accurately because markets are reasonably efficient in incorporating information that may escape financial statements.

Tarun Khanna et al. (2004), in his study questioned that does links with the US capital, labor and product markets have any impact upon corporate disclosure policies for non-US companies? They discovered that companies that have significant interactions with US markets in various aspects of their business are more likely to use US-style disclosure practices. The study was based on a sample group of 466 companies drawn from 13 countries across the Asia-Pacific region. Laura Zayatz (2005) applied disclose avoidance techniques prior to publicly releasing their data products to protect the confidentiality of the respondents and their data. This paper discussed the various types of data released, disclosure review process, restricted access procedures, disclosure avoidance techniques currently being used and current disclosure avoidance research.

Steven Globerman (2002) said that the costs and benefits of harmonization of international accounting and disclosure practices by firms is an important policy issue. Their paper investigated the extent to which voluntary disclosure practices by Japanese firms have converged since the collapse of Japan s financial bubble of the late 1980 s. Convergence of voluntary disclosure would suggest that Japanese firms respond to environmental and market pressures by adopting increasingly similar reporting practices. The findings suggested that, for the sample of Japanese firms, there was neither more, nor less, convergence in selected voluntary disclosure practices over the sample period, although the average level of disclosure did increase. The results suggested that Japanese firms were in equilibriumf in terms of the scope of information they voluntarily disclosed, although they perceived net benefits in increasing the quantity of disclosed information.

Holland and Stoner (1996) investigated how 27 large UK companies dealt with price sensitive information (PSI) constraints operating on this disclosure process from the 1994 Stock Exchange Guidance. In a similar vein, Gibbins et al. (1990) researched disclosure processes in 20 Canadian firms. Both studies employed a similar grounded theory approach to exploring corporate disclosure. Each case company adopted its own variant of a high quality corporate communication process to the city, which included voluntary disclosure through private and public disclosure channels and the rapid release of price sensitive information (PSI) into the public domain.

Empirical research by Donnelly and Walker (1995) and Ashiq and Pope (1995) has confirmed that historic earnings figures do have information content for non-transitory earnings. Barker s (1997) survey results are similar to this case research in that he finds that formal and direct contacts with senior company management are the most important sources of information for fund managers and that the report and accounts (especially the annual, though also the interim) are the second major source of information. Meetings with company executives are particularly important to allow fund managers to understand the strategy of the company and to assess management s capacity to achieve the strategy. In addition, financial reporting is more important than analysts as a source of information for fund managers. The fund managers in the survey placed less emphasis on the timeliness of accounts (through announcements) than analysts and finance directors.

Various approaches were undertaken in previous studies to investigate the relationship between firm characteristics and the extent of disclosure in samples of annual reports. All of the studies reported on the basis of a one-year annual report per firm, except the study by Lang and Lundholm (1993) that covered 2,319 total firm years (varying from one to five years of annual reports per firm). The number of sample firms in the literature varied from 14 to 527. The literature used various firm characteristics as possible predictors of the extent of disclosure. Surrogated by assets and market capitalisation, firm size is the most popular firm characteristic featuring in most studies.

Other popular firm characteristics included auditor type, industry type, liquidity ratio, profitability ratio and leverage ratio. The disclosure items forming the basis of the index of disclosure as a dependent variable varied in the literature from a minimum of 24 (Chow and Wong-Boren, 1987) to 289 (Spero, 1979). The disclosure indices can be created either by analysts (Imhoff, 1992; Lang & Lundholm, 1993) or by researchers themselves (Wallace et al., 1994; Naser, 1998). The literature employed various expressions to describe the disclosure quality in corporate annual reports, for example, adequacy (Buzby, 1975), comprehensiveness (Lang and Lundhohn, 1993; Wallace et al. 1994; Nazer, 1998), timeliness (Whittered, 1980), and informativeness (Alford et al., 1993). While each construct suggests that disclosure quality can be measured along a continuum ranging from poor to excellent (Wallace et al. 1994) and can be used to assess the potential usefulness of the contents of corporate annual reports.

Stopford (1997) argued that the fusion of the information age with traditional industries has been a primary driver of innovation. This has increased the ability of companies to change the rules of competition and increased the chance of corporate failure. As intangibles such as knowledge and innovation have become an increasingly important part of corporate value then this has exacerbated the problem of how to disclose the value of these assets on the balance sheet and how to explain how profits arise from such intangibles. These problems have increased the information asymmetry between users and suppliers of equity risk capital. These changes in product markets have also coincided with changes in financial markets. The postwar concentration of share ownership in the hands of UK financial institutions (FIs) has created a more concentrated form of institutional influence and control over UK companies.

This has reached the point in 1996 where upto 75% of major UK companies shares are held by institutions, with UK institutions owning about 60% of shares in UK companies. The half of the UK equities in the UK stock market were owned by fifty financial institutions, the top twenty owned about a third of the market, the top ten about a quarter with the largest Mercury Asset Management owning 4%., (Gaved, 1997). Moizer and Arnold (1984) and Chugh and Meador (1984) surveyed UK and US analysts and both identified corporate contacts as important sources of information for analysts and for fund managers.

Rationale

This study has tried to explain the relationship between financial performance, disclosure practices and characteristics of financial institutions, (Private, Public and Multinational Company) and has also explained the effect of firm s characteristics on the disclosure practices of the company.

Many researches have been done on the topic to find the disclosure practices of the Companies and Financial Institutions. But to find and compare the disclosure practices of the public, private and multinational company and to know the results in Indian context in present time, researchers have taken new factors. Researchers have taken into consideration analysis of Public, Private and Multinational Company together to make the research more reliable. A comparison of all three kinds of companies simultaneously is the first step in this direction.

Objective

- To evaluate the differences in disclosure practices of public, private company and MNC.

Research Methodology

The study was descriptive in nature. Population taken was of all the companies in India.

Sample size was of 30 companies (10 companies from each sector i.e. Public, Private Sector and MNC were taken). Sampling element was individual company and the sampling technique was purposive (non probability) sampling. The collected data was secondary in nature and collected from annual general report of the company. Chi Square test was used to check the effect of each factor on disclosure practices.

Hypothesis

To study the difference in disclosure practices of different companies, the following hypothesis was formulated.

Null Hypothesis (Ho): There is no difference in the disclosure practices of public, private and multinational company.

Results and Discussion:

In research the following 30 factors were taken into consideration to analyse the disclosure practices of the companies (Table 1).

Table 1. Factors to analysis disclosure practices

S No.	Characteristics/ Factors
1	Asset Securitizations
2	Audited Consolidated Group Accounting
3	Auditors
4	Banking Product
5	Capital Adequacy
6	Corporate Governance
7	Credit Rating
8	Dividend
9	Environmental Protection Scheme
10	Equity and Preference Share Portfolio
11	Export Credit
12	Financial Result
13	Economic Policies
14	Foreign Currency Borrowings
15	Foreign Subsidiaries/Joint Venture
16	Foreign Exchange Earning
17	Future Perspective & Strategy
18	Government Initiative
19	Industrial Relation within Organization
20	IT & Communication
21	Management Discussion & Analysis
22	Market Scenario & Efforts
23	Official Language
24	Operation Environment & Outlook
25	Priority Sector Landing
26	Promotion and Social Activity
27	Risk Management
28	Spread on Loan
29	Strategic Alliance
30	HRD

Then to analyze, points are given to each company on the above factors, (Public, Private and MNC) on the basis whether these companies take into account these factors or not, in their disclosure. If a company discloses data on any of the given factors, it is awarded one point otherwise zero. By this type of ranking for each company in each category, researcher had found the observed frequency for each type of company for each factor.

Maximum frequency taken being 10 as the maximum number of companies in each category is ten. (Table 2, 3, and 4 respectively for Public, Private, Multinational Company disclosure points).

After calculating the observed frequency, the Expected Frequency is calculated, where

Expected Frequency = Total of Row   Total of column / Grand Total

Total of Row = Row total of observed frequency

Total of Column = Column total of observed frequency

Grand Total = Total of column and Row (observed frequency)

Then to calculate the chi-square find square of (O-E) and then divided by E for all (Public, Private and MNC) total of chi square is 51.986

The value of chi square (51.986) compare with the value of degree of freedom.

Degree of Freedom = (No of Column ˘ 1) (No of Rows ˘ 1)

= (3-1) (30˘1) = 58

Since, 58 lie between 50 and 60 so its value at 5% significance level is between 67.5 and 79.08. Calculated value is less than the table value. So null hypothesis is accepted that there is no difference between the disclosure practices of public sector, private sector and MNC. (Table 5, 6 and 7)

Conclusion

If we talk about the disclosure practices of companies in India, every company has to disclose some of the information in their financial data in one way or other. Earlier there were no standard norms or no standardized format for the disclosure. In general, public sector enterprises were thought to be more transparent than the private and multinational corporations. The reasons for being considered as more transparent was that they were government owned and were therefore supposed to be more transparent.

In the present research when the data on disclosure practices was analyzed, we find little or no difference in the disclosure practices of public company, private company and multinational company. The probable reason for this can be that as the Indian Economy is open now, there are number of multinationals entering into the scene. Similarly, the numbers of private owned enterprises too have increased. So now government requires them to be transparent too as they form the major part of economy.

The few parameters used to measure disclosure transparence in the research have become mandatory for all companies. There are other parameters too on which transparence can be measured, but disclosing on those parameters are on company s discretion. So, the results obtained in the study are that there is no difference in the disclosure practices followed by public, private and MNCs. Had more parameters were included in the research, the results obtained could have been different.

Table 2. Public Sector banks disclosure points

		Cadbury	TCS	Sony	General Motors	Wipro	Glaxo	SAP	IBM	Oracle	Dr. Reddy	Total Frequency
1	Asset Securitizations	1	1	0	1	1	0	1	1	1	0	7
2	Audited Consolidated Group Accounting	1	1	1	1	1	1	1	1	1	1	10
3	Auditors	0	1	1	1	1	0	0	1	1	6	
4	Banking Product	0	1	0	0	0	0	0	0	0	0	1
5	Capital Adequacy	1	1	1	0	0	0	1	0	0	1	5
6	Corporate Governance	1	1	1	1	1	1	0	0	0	1	7
7	Credit Rating	1	1	0	1	1	1	0	1	1	1	8
8	Dividend	0	1	0	0	1	0	0	0	0	0	2
9	Environmental Protection Scheme	1	1	1	0	0	1	0	0	0	1	5
10	Equity and preference share Portfolio	0	1	0	0	1	0	0	0	0	1	3
11	Export Credit	1	0	1	1	1	1	1	1	1	1	9
12	Financial Result	1	1	1	1	1	1	1	1	1	1	10
13	Economic Policies	1	1	0	0	1	1	0	1	1	1	7
14	Foreign Currency Borrowings	1	1	1	0	1	0	1	0	1	0	6
15	Foreign Subsidiaries/Joint Venture	1	1	1	0	0	1	1	0	1	1	7
16	Foreign Exchange Earning	1	1	0	1	1	0	1	1	1	1	8
17	Future Perspective & Strategy	1	0	1	1	1	1	1	1	1	1	3
18	Government Initiative	0	0	0	0	0	1	1	0	1	0	3
19	Industrial Relation within Organization	1	1	1	0	1	0	0	1	1	1	7

		Cadbury	TCS	Sony	General Motors	Wipro	Glaxo	SAP	IBM	Oracle	Dr. Reddy	Total Frequency
20	IT & Communication	1	1	1	1	1	1	0	1	1	0	8
21	Management Discussion & Analysis	1	1	1	1	1	1	1	1	1	1	10
22	Market Scenario & Efforts	1	1	0	1	1	0	1	1	0	0	6
23	Official Language	0	1	0	0	1	0	0	0	0	0	2
24	Operation Environment & Outlook	1	1	1	1	1	1	0	0	1	0	7
25	Priority Sectors Landing	1	1	0	0	1	0	0	0	0	0	3
26	Promotion and Social Activity	1	1	1	1	0	1	1	1	0	1	8
27	Risk Management	1	0	1	1	1	0	0	0	0	0	4
28	Spread on Loan	0	0	1	1	1	1	0	1	0	0	5
29	Strategic Alliance	1	1	1	1	1	0	1	1	0	0	7
30	HRD	1	1	1	1	1	1	0	1	1	1	9

Table 3. Private Banks disclosure points

		BHEL	SBI	PNB	IOC	BSNL	MTNL	Air India	ONGC	SAIL	HPCL	Total Freq-uen-cy
1	Asset Securitizations	1	1	1	0	1	0	1	1	1	1	8
2	Audited Consolidated Group Accounting	1	1	1	1	1	1	1	1	1	1	10
3	Auditors	1	1	1	1	1	1	0	0	1	1	8
4	Banking Product	1	1	1	0	1	1	0	0	1	0	6
5	Capital Adequacy	1	1	1	1	0	0	0	1	1	1	7
6	Corporate Governance	0	0	0	0	1	1	1	1	1	1	6
7	Credit Rating	0	1	0	0	0	0	1	0	0	0	2
8	Dividend	1	1	1	1	1	1	0	1	1	1	9
9	Environmental Protection Scheme	1	1	1	1	1	1	1	0	1	0	8
10	Equity and preference share Portfolio	1	1	1	1	1	1	1	1	1	1	10
11	Export Credit	1	1	1	1	0	0	0	1	1	1	7

		BHEL	SBI	PNB	IOC	BSNL	MTNL	Air India	ONGC	SAIL	HPCL	Total Frequency
12	Financial Result	1	1	1	1	1	1	1	1	1	1	10
13	Economic Policies	1	1	1	1	1	1	1	1	1	0	9
14	Foreign Currency Borrowings	1	1	1	1	1	1	1	1	1	1	10
15	Foreign Subsidiaries/Joint Venture	1	1	1	1	1	1	0	1	1	1	9
16	Foreign Exchange Earning	1	1	0	0	0	0	0	1	1	1	5
17	Future perspective & Strategy	1	1	1	1	1	1	1	1	1	1	10
18	Government Initiative	1	1	1	0	1	0	0	1	1	1	7
19	Industrial Relation within Organization	1	1	0	1	0	1	1	1	0	0	6
20	IT & Communication	1	1	1	0	0	0	1	1	1	0	6
21	Management Discussion & Analysis	0	0	1	1	1	1	1	1	1	1	8
22	Market Scenario & Efforts	1	0	0	0	0	1	0	0	0	1	3
23	Official Language	1	1	1	1	1	0	1	1	1	0	8
24	Operation Environment & Outlook	1	1	1	1	1	1	0	1	0	1	8
25	Priority Sector Landing	1	1	1	1	1	1	1	1	1	0	9
26	Promotion and Social Activity	1	1	1	0	0	0	1	1	1	0	6
27	Risk Management	1	1	1	1	1	1	1	1	0	1	9
28	Spread on Loan	0	0	1	0	0	1	1	1	1	0	5
29	Strategic Alliance	1	1	1	1	1	1	1	1	1	1	10
30	HRD	1	1	1	1	1	1	0	1	1	1	9

Table 4. Multi National Company disclosure points

		Bata	Bharti	Satyam	HLL	Bajaj Auto	UTI Bank	Godrej	India Bulls	SRF	Mukta arts	Total Frequency
1	Asset Securitization	1	1	1	1	1	1	0	0	0	1	7
2	Audited Consolidated Group Accounting	1	1	1	1	1	1	1	0	1	1	9
3	Auditors	0	0	1	1	1	1	1	0	1	0	6

		Bata	Bha-rti	Saty-am	HLL	Bajaj Auto	UTI Bank	God-rej	India Bulls	SRF	Muk-ta arts	Total Freq-uen-cy
4	Banking Product	0	0	0	0	0	1	0	1	0	0	2
5	Capital Adequacy	0	0	0	1	1	1	1	1	1	0	6
6	Corporate Governance	1	1	0	1	0	1	0	1	0	0	5
7	Credit Rating	1	1	1	1	0	0	0	0	0	0	4
8	Dividend	0	0	1	1	1	1	0	0	0	1	5
9	Environmental Protection Scheme	1	1	0	1	1	1	1	0	1	1	8
10	Equity and preference share Portfolio	0	0	1	1	1	1	1	1	1	0	7
11	Export Credit	0	0	1	1	1	0	1	0	1	0	5
12	Financial Result	1	1	1	1	1	1	1	1	1	1	10
13	Economic Policies	1	1	0	1	1	1	1	1	1	1	9
14	Foreign Currency Borrowings	1	1	1	1	1	1	1	1	0	1	9
15	Foreign Subsidiaries/Joint Venture	0	0	1	0	0	1	1	0	1	1	5
16	Foreign Exchange Earning	1	1	1	1	1	0	0	0	1	1	7
17	Future Perspective & Strategy	1	1	1	1	1	1	0	1	1	1	9
18	Government Initiative	0	1	1	1	1	1	0	1	0	1	7
19	Industrial Relation within Organization	0	0	0	0	1	0	1	0	0	0	2
20	IT & Communication	0	0	1	1	1	1	1	1	0	0	6
21	Management Discussion & Analysis	1	0	1	0	1	0	1	0	0	1	5
22	Market Scenario & Efforts	1	1	1	0	0	0	0	0	0	1	4
23	Official Language	0	1	1	1	1	0	0	0	1	0	5
24	Operation Environment & Outlook	1	0	1	1	1	1	0	1	1	1	8
25	Priority Sector Landing	0	1	1	1	1	1	1	1	0	1	8
26	Promotion and Social Activity	0	1	1	1	0	1	0	1	0	1	6
27	Risk Management	1	11	1	1	1	1	1	0	1	1	19
28	Spread on Loan	1	1	0	1	1	0	0	1	1	1	7
29	Strategic Alliance	0	0	1	0	1	1	0	1	0	1	5
30	HRD	1	1	1	1	1	1	1	1	1	1	10

Calculations for Chi-Square for:

Table 5. Public Companies

Observe Fre.	Estimated Fre(E)	(O-E)	Square (O-E)	Square (O-E) divided by E
8	8.142857143	-0.142857143	0.020408163	0.002506266
10	10.73376623	-0.733766234	0.538412886	0.050160668
8	7.402597403	0.597402597	0.356889863	0.048211438
6	3.331168831	2.668831169	7.122659808	2.138186375
7	6.662337662	0.337662338	0.114015854	0.017113491
6	6.662337662	-0.662337662	0.438691179	0.065846434
2	5.181818182	-3.181818182	10.12396694	1.953748006
9	5.922077922	3.077922078	9.473604318	1.599709501
8	7.772727273	0.227272727	0.051652893	0.006645401
10	7.402597403	2.597402597	6.746500253	0.911369332
7	7.772727273	-0.772727273	0.597107438	0.07682084
10	11.1038961	-1.103896104	1.218586608	0.109744057
9	9.253246753	-0.253246753	0.064133918	0.006930964
10	9.253246753	0.746753247	0.557640412	0.060264297
9	7.772727273	1.227272727	1.506198347	0.193779904
5	7.402597403	-2.402597403	5.772474279	0.779790385
10	8.142857143	1.857142857	3.448979592	0.423558897
7	6.292207792	0.707792208	0.500969809	0.079617493
6	5.551948052	0.448051948	0.200750548	0.036158578
6	7.402597403	-1.402597403	1.967279474	0.265755297
8	8.512987013	-0.512987013	0.263155675	0.030912261
3	4.811688312	-1.811688312	3.282214539	0.682133656
8	5.551948052	2.448051948	5.99295834	1.079433432
8	8.512987013	-0.512987013	0.263155675	0.030912261
9	7.402597403	1.597402597	2.551695058	0.344702666
6	7.402597403	-1.402597403	1.967279474	0.265755297
9	11.84415584	-2.844155844	8.089222466	0.682971634
5	6.292207792	-1.292207792	1.669800978	0.265376007
10	8.142857143	1.857142857	3.448979592	0.423558897
9	10.36363636	-1.363636364	1.859504132	0.179425837

Table 6. Private Company

Observe Fre.	Estimated Fre(E)	(O-E)	Square (O-E)	Square (O-E) divided by E
7	7.321428571	-0.321428571	0.103316327	0.014111498
9	9.650974026	-0.650974026	0.423767182	0.043909266
6	6.655844156	-0.655844156	0.430131557	0.064624644
2	2.99512987	-0.99512987	0.990283458	0.330631225
6	5.99025974	0.00974026	9.48727E-05	1.58378E-05
5	5.99025974	-0.99025974	0.980614353	0.163701475
4	4.659090909	-0.659090909	0.434400826	0.093237251
5	5.324675325	-0.324675325	0.105414066	0.019797276
8	6.988636364	1.011363636	1.022856405	0.146359941
7	6.655844156	0.344155844	0.118443245	0.017795375
5	6.988636364	-1.988636364	3.954674587	0.565872136
10	9.983766234	0.016233766	0.000263535	2.63964E-05
9	8.319805195	0.680194805	0.462664973	0.055610073
9	8.319805195	0.680194805	0.462664973	0.055610073
5	6.988636364	-1.988636364	3.954674587	0.565872136
7	6.655844156	0.344155844	0.118443245	0.017795375
9	7.321428571	1.678571429	2.817602041	0.384843206
7	5.657467532	1.342532468	1.802393426	0.318586614
2	4.991883117	-2.991883117	8.951364585	1.79318393
6	6.655844156	-0.655844156	0.430131557	0.064624644
5	7.654220779	-2.654220779	7.044887945	0.920392571
4	4.326298701	-0.326298701	0.106470842	0.024610146
5	4.991883117	0.008116883	6.58838E-05	1.31982E-05
8	7.654220779	0.345779221	0.11956327	0.015620567
8	6.655844156	1.344155844	1.806754933	0.271453912
6	6.655844156	-0.655844156	0.430131557	0.064624644
19	10.64935065	8.350649351	69.73334458	6.548131137
7	5.657467532	1.342532468	1.802393426	0.318586614
5	7.321428571	-2.321428571	5.389030612	0.736062718
10	9.318181818	0.681818182	0.464876033	0.049889135

Table 7. Multinational Company

Observe Fre.	Estimated Fre(E)	(O-E)	Square (O-E)	Square (O-E) divided by E
7	6.535714286	0.464285714	0.215561224	0.032982045
10	8.61525974	1.38474026	1.917505587	0.222570839
6	5.941558442	0.058441558	0.003415416	0.000574835
1	2.673701299	-1.673701299	2.801276037	1.047714656
5	5.347402597	-0.347402597	0.120688565	0.022569568
7	5.347402597	1.652597403	2.731078175	0.510729859
8	4.159090909	3.840909091	14.75258264	3.547069051
2	4.753246753	-2.753246753	7.580367684	1.594776808
5	6.238636364	-1.238636364	1.534220041	0.245922338
3	5.941558442	-2.941558442	8.652766065	1.45631254
9	6.238636364	2.761363636	7.625129132	1.222242921
10	8.912337662	1.087662338	1.183009361	0.132738391
7	7.426948052	-0.426948052	0.182284639	0.02454368
6	7.426948052	-1.426948052	2.036180743	0.274161167
7	6.238636364	0.761363636	0.579674587	0.092916874
8	5.941558442	2.058441558	4.23718165	0.713143141
3	6.535714286	-3.535714286	12.50127551	1.912763466
3	5.050324675	-2.050324675	4.203831274	0.83238832
7	4.456168831	2.543831169	6.471077016	1.452161545
8	5.941558442	2.058441558	4.23718165	0.713143141
10	6.832792208	3.167207792	10.0312052	1.468097506
6	3.862012987	2.137987013	4.570988468	1.183576669
2	4.456168831	-2.456168831	6.032765327	1.353800889
7	6.832792208	0.167207792	0.027958446	0.004091804
3	5.941558442	-2.941558442	8.652766065	1.45631254
8	5.941558442	2.058441558	4.23718165	0.713143141
4	9.506493506	-5.506493506	30.32147074	3.189553616
5	5.050324675	-0.050324675	0.002532573	0.000501467
7	6.535714286	0.464285714	0.215561224	0.032982045
9	8.318181818	0.681818182	0.464876033	0.055886736
Total				**51.98606419**

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QUALITY IN SERVICE SECTOR – AN INDIAN PERSPECTIVE

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Abstract: *India's post 1990 economic growth was mainly caused by services sector and its GDP of $690 billion in 2005-06 consists of 54% contribution from the services sector. With the enhanced weightage of services sector to the country's GDP coupled with growing global competition, it has become important to define and measure quality in services. Service companies are deriving competitive advantage through improvement in quality. This paper attempts to highlight how companies should maintain more or less uniform quality in services provided by them inorder to maximize customer satisfaction.*

Introduction

Indian s GDP is $ 690 billion in 2005-06 with weightage for Service Sector at 54% and GDP is planned to touch $ 1 trillion by 2010-11 with contribution from Services Sector at 56.6%.

India s post 1990 economic growth was mainly caused by Services Sector, especially the Telecom and the fast growing Information Technology Sectors; which were under scored by the lagging agricultural and industrial growth rates. During this period infrastructural weakness coupled with the lack of reforms in labour laws was mainly responsible for the industrial growth to suffer and the agriculture sector too did not benefit from reforms either. Maintaining uniform quality in services is difficult and variability in service quality often occurs even if services are completed by the same person.

The industrialization of services can lower inefficiency and excessive variability via hard technologies, soft technologies or hybrid technologies. Hard technologies substitute machinery for people, such as utilizing electronic financial transaction instead of human bank tellers. Soft technologies substitute pre-planned systems for individual services. For example, travel agents sell pre-packaged vacation tours to standardize transportation, accommodation, food and sightseeing. Hybrid technologies combine both hard and soft technologies. Examples include muffler repair and quick oil change shops. This is how the internet may be used to address the need for closer student-teacher relationships by industrializing service activities. To industrialize their services better, many firms use a service blue print which displays each step in the service system, linking the various steps in the sequence in which they appear.

Service Strategies

While planning their marketing strategies, it is important for firms to understand service quality from a customer perspective. They must try to minimize any possible service gap ˘ the difference between customer expectations and actual service performance.

Customer expectations regarding service companies cover the following ten areas:

- Tangibles facilities, personnel, communication materials etc.
- Reliability Ability to perform a service dependably and accurately.
- Responsiveness Willingness to provide prompt service and assist customers.
- Competence Possession of the necessary skills and knowledge.
- Courtesy Respect, politeness and friendliness of personnel.
- Credibility Honesty, trustworthiness.
- Security Freedom from risk, doubt or danger.

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, Access Ease of contact.

, Communication Keeping customers informed and listening to customers.

, Understanding customer Knowing the customer s needs.

When a marketing plan is properly integrated, all of its various parts are unified, consistent and co-ordinate, a total quality approach is followed. Although this appears to be a simple task, it is important to recall that a firm may have long-run, moderate-length and short-run plans, the different strategic business units in an organization may require separate marketing plans; and each aspect of the marketing-mix requires proper planning.

Customer Satisfaction in the Service Sector

Customer satisfaction is the degree to which there is a match between a customer s expectations of service and the actual performance of that service. Today, due to the intensely competitive global market place, it is more important than ever those companies regularly measure the level of customer satisfaction. Given that customer satisfaction is positively related to loyalty, which in turn leads to increased profitability, market share and growth, the importance of developing an effective programme is critical. A major problem with most customer satisfaction programmes is that they begin with an attempt by the marketing research department to send customers an off-the-shelf*f* survey or one from another company, to probe their attitudes about customer service. Although, this seems to be an easy and inexpensive method, the results are generally less than satisfactory. Each firm should take the initiative to develop its own measurement programme based on its needs and the needs of its customers. Only then the survey results will be useful to management and lead to future improvements.

However, such surveys should be conducted regularly and re-evaluate their reliability and validity. From the data collected from surveys, a service firm should develop a customer satisfaction metric that not only relates the level of satisfaction of its customers, but also analyses the importance of the various dimensions of that satisfaction. Such dimensional information may be useful to develop an action plan for improving each dimension and communicating these improvements to customers. Thus, the service firm may decide to link up the performance evaluation and compensation of each employee involved in the action plan to accomplishment. This will ensure that the customers goals match employees goals.

Customer Relationship Management (CRM)

CRM*f* word being used by IT companies to describe IT systems for sales, customer care and marketing promotions. Clearly, this is only one aspect of CRM*f*. The larger and more holistic view of CRM, managing your customer*f*, involves a cohesive view of branding, promotions, communication and customer touch points. FMCG Sector uses CRM practice for its best advantage by means of understanding customers using quantitative and qualitative research, segmenting them and articulating positioning statements for each of the segments based on their expectation and contribution to profits.

Today, Hotel and Tourism industries are using successfully the segmentation technique of CRM and decide what they will offer to customers rather than work around customer expectations. Typically, customers look for consistency of delivery. That is where tools like Six Sigma*f* help are not just defining processes, but measuring them to assess consistency in delivery. One key to success in formulating a customer ˘ driven services strategy is understanding what the customer wants and how to provide it better than the competitors do. Market analysis first divides the firm s customers into market segments and then identifies the needs of each segment. Understanding the customer benefit package for a market segment enables management to identify ways to gain competitive advantage in the market. Each market segment has market needs that can be related to service, process or demand attributes.

Service capabilities for competitive advantage

A customer-driven service strategy reflects a clear understanding of the long-term goals of the organization. It also requires a cross-functional effort by marketing and operations to follow the needs of each market segment and translate those needs into desirable capabilities, or competitive priorities. Market analysis can identify the market needs that a firm can exploit to gain competitive advantage in each market segment. Translating these needs into desirable capabilities for each of the functional areas of the firm is followed by developing the selected capabilities. A firm gains an advantage with its service system by outperforming competitors in terms of one or more of these capabilities.

There are eight possible competitive priorities for services, which fall into the four following groups.

Cost:

1. Low-cost operations.

Quality:

2. High-performance design
3. Consistent quality

Time:

4. Fast delivery time
5. On-time delivery
6. Development speed

Flexibility:

7. Customisation
8. Volume flexibility.

Cost :

To compete based on cost, service managers must address personnel, materials and overheads etc., to design a system that lowers the cost per unit of service.

Quality :

High-performance design may include superior features, greater durability,

Time:

The third time priority, development-speed measures how quickly a new service is introduced. Development speed is especially important in Hospitality and Tourism Industries.

Flexibility:

Customisation is the ability to satisfy the unique needs of each customer by changing service designs. Customization typically implies to restaurants which handle specific customer needs and changes in designs.

Volume flexibility is the ability to accelerate or reaccelerate the rate of offering services to handle large fluctuations in demand. Volume flexibility is an important operating capability that often supports the achievement of other competitive priorities. This aspect is important for Hotels, Health Care and Tourism Industries.

Kaizen for Service Industries

KAI = Change and ZEN = Good (for better) and Kaizen means continuous improvement.

Continuous improvement, based on a Japanese concept called kaizen, is the philosophy of continually seeking ways to improve operations. In this regard, it is not unique to quality but applies to process improvements. Continuous improvement involves identifying bench marks of excellent practice and instilling a sense of employee ownership in the process. Hotels, Restaurants, Banking, Health Care and Airlines services are the industries in which Kaizen may do wonders. The basis of the Kaizen philosophy is that the belief that virtually any aspect of an operation can be improved and the people most closely associated with an operation are in the best position to identify the changes that should be made. When improvement may be investment oriented and also people oriented, Kaizen believes in people oriented improvement. Management has two broad approaches i.e. process and result oriented, Kaizen aims for process oriented approach.

Measuring Service Quality

$$\text{Customer satisfaction} = \frac{\text{Actual performance by the firm}}{\text{Customers expectations}}$$

A customer can assess the services as follows :

- Tangible Physical appearance
- Reliability Ability to perform certain desired service
- Responsiveness Willingness to provide help and service.
- Assurance As measured by competence of the firm.
- Empathy Caring and individual attention.

Thus, to measure service quality, it is required to assess customer expectations and what his or her actual experience has been with the service provided by the firms on the above dimensions of service. The gap between the two will indicate whether the service quality is high or low on each of these variables.

Total Quality Management (TQM) for the Hotel Industry

TQM is a management approach to long-term success through customer satisfaction. It is a way of managing systems that includes an emphasis on understanding systems, variations and customer needs and a focus on making improvements after collecting and analyzing data. TQM is based on participation of all employees of the hotel in improving processes, products, services and the culture. It utilizes statistical and problem solving tools to bring about planned change and continuous improvement in the hotel services. Due to the peculiar characteristics of the hotel industry, which sees huge customer interface and person-to-person interactions, the achievement of employee satisfaction is of vital importance of quantitative estimation through a well-developed questionnaire which can help the hotel management to assess the effectiveness of their approaches for employees and customer satisfaction.

The employee satisfaction level is enhanced through fulfilling training needs, motivation, avenues for being creative and providing suggestions. A written quality policy for the hotel provides the employees and guests with a new form of predictability that becomes a written guide for managerial action. The hotel employees training should be given with an emphasis on cleanliness, a sense of understated elegance and good taste. The basic principles of non-verbal communication and body language such as facial expressions, appearance, standing posture and pleasing way of speaking etc. Targeting is important since it helps in improving the morale of employees which may be further boosted with the incentives provided. Also, the employee empowerment increases an employee s ability to make innovative decisions. For a restaurant, important parameters should be addressed are timelines, integrity, persistence, consistency and customer satisfaction. Thus, ongoing training and service improvement programmes at all levels become part of the hotel s TQM strategy.

Six sigma for the service industry

The objective of six sigma implementation is to identify and eliminate sources of variability. It is a quality objective that specifies the variability required by a process so that the quality and reliability meet and exceed the demanding customer requirements. It is a measure of quality that strives for near elimination of defects using the application of statistical methods. Six sigma implementation involves five stages known as DMAIC i.e. Define, Measure, Analyse, Improve and Control which is directed towards significant innovation or improvement of an existing service/ process. In the service industry, customer satisfaction is mostly non-tangible and depends upon moment s experience.

In order to improve customer satisfaction in a hotel or a restaurant, the focus should be on understanding what is important to customer and minimize variations. Typical areas for investigating and minimizing variations in a hotel, restaurant, airline and healthcare industries include the following: Absenteeism, recruitment, training and retention of employees, responsiveness at customer centers including safety parameters etc.

The following steps help maintain and improve the competitive position for a service oriented company:

- Define competitiveness for the business
- What are the customer expectations including the gaps?
- Take measures to reduce the gaps
- How are the competitors performing? However, it is to be understood that in the absence of a six sigma programme, the approaches like Total Quality Management (TQM), Bench Marking and Business Performance Excellence (BPE) are the key to unlock the potential in an organization.

Business Process Reengineering (BPR) in the services sector

Hotels, Restaurants, Airline and Health Care industries are suitable areas for implementation of Business Process Reengineering (BPR) or Reengineering Programme.

BPR consists of four key words i.e.

- Fundamental like Why do we do what we do*f*. Reengineering ignores What is*f* and concentrates on What should be*f*.
- The second key word is Radical redesign*f*. i.e. getting to the root of things. Reengineering is about business reinvention and not improvement.
- The third key word is Dramatic*f* i.e. Reengineering is not about making marginal or incremental improvements but about achieving quantum leaps in performance.
- The fourth key word is Process*f* i.e. conversion of inputs to outputs to the customers.

Out of above key words, Process*f* is the most important. The process based thinking adopted by companies like McDonald, IBM and Kodak have made them reputed world wide.

Quality in Tourism Sector

The Word Travel and Tourism council has rated India as one of the foremost tourist growth centers in the coming decade. The Indian tourism industry is expected to generate 121.4 billion of economic activity by 2015. Foreign tourists arrival in India in 2004-2005 had contributed over $5 billion in foreign exchange. It is projected that the demand in the tourism industries would grow by over 8.5% per annum in the next decade. It is the right time for the Indian states with high tourism potential to reap maximum benefits. Because of competition and constantly evolving tourists expectations, the tourism sector should embrace the philosophy of Kaizen-constantly improve the tangible and intangible aspects to generate repeat business.

Tourists experience the tangible aspects of quality, which may be a panoramic view along the highway, the sound of waves crashing along the sea beach and the high grade hospitality etc. The intangible aspect of quality, such as courtesy, assurance and empathy refer to how the tourists feel through the personal interaction with the various personnel connected with the tourism business. The stated goal of any tourism system should be to produce high-quality leisure experience for tourists to accomplish the real goal of producing profits. The tourism industry is traditionally comprised of four main and distinctive sectors such as Transportation, Accomodation, Tour operators (including travel agencies) and Tourism destination operators, which must function successfully in close coordination among them for the ultimate goal of providing maximum satisfaction for the tourists who should feel they have achieved the full value for money.

Quality as Corporate Strategy

The total quality mission should fulfill the needs and desires of customers, both internal and external. Team work and team spirit play a very significant role in establishing quality management. Team work does not happen by command and it requires collaboration and spirit of co-operation. It needs action plan directed towards its accomplishment. Management s commitment, support and encouragement are absolutely necessary.

Modern quality control techniques are based on the idea of an error-freeƒ or zero-defectƒ approach. Quality assurance provides a framework for quality control and quality improvement.

The corporate strategy should be such that there is constant stimulation to improve quality and that every body in the organization is involved in quality management. It is to be understood that costs decline as quality improves and that the corporate management should be able to assess the stage it has reached in the development of a quality system.

Conclusion

The service business often provides greater scope for innovation than the product business. The fast foods business pioneered by McDonald s is one of the greatest innovations ever. By innovating, service companies can charge a price which is linked to the value perceived by the customer rather than the actual cost of delivery. Maintaining quality, has always been an important issue at McDonald s. The restaurant chain has continued to emphasise QSC & V, which stands for Quality, Service, Cleanliness and Value. The crew members are trained to think like customers and to deliver exceptional customer experience. Value at McDonald s is the total experience customers receive for what they pay.

Speed of service is regarded as a hallmark for service companies. If the customers are assured a desirable speed of service, it would lead to enhanced customer value. This is what Domino s Pizza offers through its thirty minutes deliveryƒ promise. Service companies are adopting 7 Ps of services to offer enhanced value to customers. Modern Banks are engaged in enhancing service value by providing access to the bank through ATMs, Internet, telephone etc., and also by offering extended banking hours to the customers.

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Employee Self Services Applications: A Tool for HR Effectiveness

Madhuchhanda Mohanty*

Abstract: *Human resources operations challenge organizations with a dualistic yet interdependent set of outcomes. One summons organizational change that may be perceived as a threat to the status quo, while the other set of outcomes gives highly valuable potential benefits for organizational performance. This paradox stems from the requirement for business to improve productivity from their skilled workers in order to satisfy the demand shift from manufacturing to technological and intellectual innovations. In this context the author discusses Self-Services Applications which can act as a success tool for HRM department by improving its effectiveness.*

Introduction

The recent trend in HR (Human Resource) has been employee self-service (ESS), which vendors and consultants tout as a way to relieve the department of its administrative burdens so HR professionals can take on a more substantive role in the organization. Much to the dismay of Human Resources professionals worldwide, HR activities tend to be dominated by administriviaƒ ˘ paperwork, telephone inquiries and drop-in visits. These demands often force HR staff members to be reactive-rather than proactive in their pursuits. One benefit of implementing an employee self service (ESS) application is that HR groups are freed up to play more strategic roles in their organizations.

What is ESS?

Many Companies, for example, post news and policies on a corporate intranet or portal. Adding an ESS module to a Human Resource Information System (HRIS) on enterprise resource planning (ERP) package goes a step further, enabling employees to monitor vacation time accruals and 401 (k) status, as well as letting them key in changes to personal records, such as emergency contact information. Many believe it is not cost-effective to pay people to handle simple, repetitive questionsƒ. Having online services helps companies to save money on printing and distributionƒ.

Chances are there that many of organization s processes are already automated: An employee completes a form ˇvacation request, beneficiary change, training registration, etc. ˘ then that same information is entered into the appropriate database by HR. Multiplying that by the number of HR transactions processed in a week, a month, a year ªª..making it quite a duplication of effort.

An ESS, on the other hand, allows employees to make changes directly to the system. More importantly, employees are given the opportunity to explore what ifƒ scenarios before committing to a change. What if I increase my payroll deductions? What if I switch insurance carriers? What if I use five vacation days? One will get the picture. Once an employee makes a change, his or her personal record is updated instantaneously.

The types of transactions supported by ESS applications are almost limitless. Besides benefit and payroll issues, they can be used to automate procedures related to internal job postings, time and attendance reporting and training enrollment, to name just a few.

In addition to transactional capabilities, ESS applications can provide employees with a wealth of useful information. An organization s plans, policies and procedures are transformed into meaningful answers to its employees inquiries. With the use of a search mechanism and/or site map, employees can easily locate the information they need. Once there, they have the option of drilling downƒ to more

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specific information or jumping to linked pages that contain related information.

Attributes of ESS

Two attributes of ESS applications make them especially powerful:

1. Intuitive approach to the information and
2. Personalization of content.

Employees oftentimes know exactly what they are looking for. Their co-pay amount, number of unused personal days or taxes withheld from last week s paycheck. Other times, however, an employee experiences something in his or her personal or professional life-marriage, birth of a child, serious illness, layoff, retirement, etc., and is not aware of the steps that should be taken as a result. The life eventƒ approach characteristic of many ESS applications addressed this issue. By simply selecting his or her specific circumstances, the employee will be presented with a comprehensive to doƒ list. This list, which is generally not limited to work-related tasks, is often supplemented with a directory of related resources and links to useful websites.

The information provided by the ESS is based on the employee s profile. If, for example, the details of a certain benefit are contingent upon the employee s status (part-time vs. full-time, salaried vs. hourly, active vs. leave of absence, staff vs. management, union vs. nonunion, etc.) the employee will have access to only that data which relates specifically to him or her.

These two characteristics of ESS applications ˘ intuitiveness and personalization-provide employees with a level of knowledge rivaling that, which results from a face-to-face meeting with a HR representative. Not only are their specific questions answered but issues not previously considered may also be brought to light.

Additional Benefits of an ESS

Additional benefits of an ESS include:

- All of an organization s information is in one place; the need to reference multiple documents and / or databases is eliminated.
- Many ESS applications can be customized so that the interface matches that of an organization s corporate intranet; the transition from one system to the other will be seamless to the employee.
- The information can easily be kept current; there is no longer a need to sift through the Employee Handbook and its fifteen addendums to find the most up-to-date policy on xyz.
- The need to print and distribute paper-based manuals is eliminated; think of all the money that can be saved on postage!
- The information is available 24 x 7 and anywhere that the employee has an Internet connection. This allows him or her to view and discuss options with family members prior to making decisions.

Procuring ESS

Some organizations, of course, have the information technology resources to build an ESS in-house. For those that do not, there are dozens of companies whose sole business is developing these knowledgebase.

While ESS applications developed by some suppliers generally reside on the client company s server, several suppliers offer web-based knowledgebase hosted on their own servers.

Some ESS suppliers target organizations of a specific size that is their product may be better-suited and priced for small companies or large ones. Other suppliers may often multiple products, each designed with organizations of a particular size in mind. Suppliers may also differ, in the depth of any needs analysis performed, the extent to which their product can be customized, the level and nature of assistance provided during implementation and the availability of ongoing technical support once the system is installed.

It is therefore, extremely important that company do their homeworkƒ to identify the supplier and ESS product that best meets the needs ˘ and budget ˘ of their organization. When done right, the rewards can be tremendous! Such an approach is fine for workers who have a PC on their desks, but what about those on the factory shop floor, in retail establishments or out in the field? To bring 24-hour ESS to these employees, some companies are setting up interactive kiosks.

Kiosks ˘ The Virtual HR

Kiosks can increase efficiency by giving employees who usually do not work on a computer self-service access to HR data. Just as important, kiosks bring services out to wherever people are working.

Twenty years ago, banks learned that they could not expect customers to come in during bankers hoursƒ. They placed ATMs everywhere to add convenience, cut costs and save time. Similarly, positioning HR kiosks on the shop floor and in lunchrooms lets people who might never visit HR, due perhaps to shift work or location, feel part of the team. Although the company is geographically spread out and split into different departments, it gives employees the feeling that they are working in more of a close-knit, smaller company environment.

The kiosks primary purpose, however, is to serve HR needs. In addition to corporate information found on the intranet, employees can obtain discounts on travel and publications and check on stock option grants.

After installing kiosks, HR people receive noticeably fewer phone calls as frontline employees are becoming far savvier on HR issues. At the same time as companies move towards employee self-service, they hope to be in more of an overseer/auditor role with the information being keyed in by their employees.

Kiosks vs. PCs

Some companies, instead of buying kiosks to provide extended HR services, are simply installing PCs in common areas, such as lunchrooms.

The PCs boot straight into Internet Explorer and employees can access the HR knowledge base and an employee handbook, as well as a personal profile that includes job history, vacation and sick day balances and emergency contact information. They can also read corporate communications and post questions to management and read the responses.

Kiosks do have several advantages.

- Kiosks can be as versatile as a PC, since many of them connected to the company s network on intranet. But kiosks are designed to withstand the wear and tear of shop floor life, unlike most PCs, which are meant for climate-controlled offices.
- Kiosks can be freestanding, installed on a tabletop or mounted on a wall. They are usually mounted on casters for ease of mobility.
- Compact countertop models are useful when space is tight, but multimedia designs, which incorporate screen on two, three or four sides, can dominate space and attract employees attention from all sides.
- Kiosk components are typically mounted within a stainless steel or aluminum box that is designed to withstand dust and debris. Some models use a touch screen, rather than keyboard and mouse, which make them immune to petty theft.
- Further, they provide employees with a greater sense of privacy when viewing personnel data, as kiosks are generally enclosed. For added privacy, some designs place the screen surface horizontally. For systems that use browsers to access the company intranet or HRIS, the back button is typically disabled so users can not view the previous visitor s data. They can also be equipped with hardware security features such as barcode readers for employee badges, fingerprint scanners and proximity sensors that erase data as soon as the employee steps away.
- Another advantage that kiosks have is in their approachability. One of their primary purposes is to reach employees who do not use a PC at work or who do not know how to use one. To some, kiosks may sum more user-friendly, like ATMs or lottery ticket machines, than computers.

The biggest decision HR departments typically face is where to place a kiosk, HR managers have to identify highly trafficked locales in areas that are conducive to and convenient for usage. Another key success factor is vendor selection, HR people should purchase its kiosks from a one-stop company that can design and build the unit, as well as provide its computer and the appropriate software.

Kiosk usage

In tandem with growing kiosk deployment, companies are finding numerous innovative ways to use them. Kiosks engender a team approach on mentality and help the company keep in touch with employeesƒ.

- **Information Device:** It provides company news, policies and procedures, internal employment opportunities, benefits and wellness information, training applications, hazardous materials information and government compliance standards.
- **Reduction in payroll paperwork:** There is a reduction in payroll paperwork. Instead of printing and hard delivering direct deposit pay stubs, employees log on to check payroll information and can print their own pay records.
- **Recruitment:** Retail establishments with customer information kiosks are adding a Want to work for us?ƒ button offering job information and applications. Government employment agencies can install similar kiosks, for example, the British Dept. of Work and Pensions has installed 9,000 self-service touch-screens at the department s 1,007 job centers nationwide.
- **E-mail:** The University of Pittsburg set up more than 100 kiosks in cafeterias, libraries and lobbies to provide remote e-mail access for faculty, staff and students.
- **Employee training:** General Nutrition Centers has informational kiosks for customers in its stores, on

which employees can also access staff training modules.

Kiosk Implementation

Kiosks solve many HR problems, can be relatively inexpensive and are simple to set up. For business already supplying information online, the self-contained units just need to be rolled into place, plugged into a power outlet and hooked into the network or the Internet.

Once company moves the kiosks into place, they can look forward to a lightening of the routine workload, as well as a demand for further services from employees and other department.

Conclusion

Self-service for employees and managers allows information to be pushed out and down to the levels needed. With one time data entry and less maintenance and with improved quality and accuracy. Users, not only IS department or even HR department, have control of the information and the budgets that support having the information. The human resources function used to be completely responsible for the human resource information systems (HRIS). Now the work force manage itself, with rules based systems administered by the software. Employees like self-service and would like to see it expanded. It will be a very exciting and worthwhile undertaking for any organization.

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Emerging Technologies for Logistics & Supply Chain Management

C.M. Maran*

Abstract: *The Mission of Logistics & Supply Chain Management is to offer the best customer service. It is largely conditioned by the extent of use and development of Information Technology. Emerging technologies include Bar Coding Systems, Speech Recognition, Memory Buttons, WAP applications and RFID Tags promise to expedite the flow of goods. It is to be mentioned that during the next one decade the entire external market environment will be dominated by the concept of Supply Chain Sales enabled by these emerging technologies*

Introduction

The Mission of Logistics & Supply Chain Management (L & SCM) is to offer the best customer service. Since without real time communication of information pertaining to customer requirements, it is not possible to generate customer satisfaction. The relevant capture of data, its transmission to facilitate decision making and ability to communicate the decision to many people in time for effective implementation at various places so as to meet the objectives of Logistics & Supply Chain Management. Hence, in the present day s environmental complexities, the success of Logistics & Supply Chain Management is largely conditioned to the extent of use and development in Information Technology.

Supply Chain / Logistics ˘ Concept Overview

The phrases supply chainƒ and supply chain managementƒ have become a part of the business lexicon although not everyone shares a universal understandings or use of these terms. The following are the definitions of these terms:

- **Supply Chain:** The Network used to deliver products and services from raw materials to end customers through an engineered flow of information, physical distribution and money.
- **Supply Chain Management**: The collaborative effort of multiple channel members to design, implement and manage seamless value-added processes to meet the needs of the end customer.
- **Supply Chain Design:** The determination of how to structure a supply chain. Design decisions include the selection of partners, the location and capacity of facilities, the products, the modes of transportation (Logistics) and supporting information systems.

IT Solutions for Logistics & Supply Chain Management

In the present day s global competitive environment, the success of Logistics & Supply Chain Management is largely conditioned by the extent of use and development of Information Technology. Logistics & Supply Chain Management is characterized as a transaction oriented and information intense business function where orders must be entered, processed and tracked. For efficient and smooth flow and management of these activities, real time communication of information is essential. The requirement of on-time delivery, time to market and efficient use of resources highlight the importance of availability of accurate, specific and real time information inevitably need IT solutions to Logistics & Supply Chain Management. Most of the corporate enterprises are considerably investing in the development of a probable integrated IT infrastructural solution for L&SCM in terms of computer hardware and software and other connectivities.

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Emerging Technologies in Logistics & Supply Chain Management

Emerging Technologies include Bar Coding Systems, Speech Recognition, Memory Buttons, WAP (Wireless Application Protocol) applications and RFID (Radio Frequency ID) Tags promise to expedite the flow of goods. When the subject of technology comes up, most of the technologies have helped to speed up the movement of goods through the distribution pipeline. But a number of emerging technologies may have an even greater effect on the Industry could revolutionize the flow of materials from the manufacturing process through the customer fulfillment. Although each technology plays a different role in Logistics & Supply Chain Management, they all have the potential to further automate distribution and transportation activism. With such changes comes the promise of speedier product flow and lower distribution cost.

WAP technology

Most of the Logistic companies have been quick to adopt the WAP technology as one more channel through which customers can log into their database for tracking shipments. With rising pressure on information availability 24x7x365, more WAP and GPRS enabled mobile phones are being used while customers are also more comfortable with the technology. The prime advantage is that more information can be accessed through WAP than via SMS (Short Mail Service). The modus operandi is thus users connect to the internet using a GPRS (General Packet Radio Service) connection provided by the Cell Company, open the Micro Browsers on the mobile and type in the WAP Site address.

In India, Blue Dart Express was the first to have its WAP Site. Using Mobile Dart˜WAP, customers can check the current status of their shipments online by entering their bill number. In case of an undelivered shipment, he can choose to receive delivery details by e-mail or SMS. The customers can also access the location finder which provides details about all locations serviced by Blue Dart, based on a pin code. Information about the entire service product offering as well as the company is also available on the WAP Site. This enables the customer to make a shipping decision on the run.

All the global logistics major have free WAP sites as part of their tracking offerings. Globally, DHL was the first to bring out its WAP offer its services, where it offers tracking, service bulletins, volumetric weight calculation for shipping and its e-business suite. To boot, many mobile players overseas now offer a corporate WAP solution. It provides a WAP Server on Active Server, which host data for many companies. This server connects a usual HTML file into a Wireless Markup Language (WML), which can be seen on the mobile. Drivers input shipment number, time and date of delivery into the WAP enabled phone, which instantly gets updated on the Internet as well. Siemens and Motorola also provide this service for the purpose of tracking, the plain WAP connection is sufficient.

Bar Coding System

Bar codes identify a trusted friend providing enormous benefits to our world. They continue to provide a revolutionary leap forward for our world every time the bar code goes Beep*f*. Young people today cannot comprehend a world without the sound of the little Beep*f*, but when combined across our globe, the symphony of Beeps*f* continues to lead to a world of benefits. Every Beep*f* gives families more time to spend together because they are not waiting in shopping lines and because more and more often every year they find the product they want when they visit their favorite stores.

Every Beep*f* gives families more money to spend. When the scanner reads*f* a bar code, it reduces cost and the tiny savings are multiplied by billions of Beeps*f* per day. Beyond this, the Beeps*f* give better visibility to consumers demand and the supply needed to meet it. This reduces spoilage and inventory levels, further reducing costs (Figure 1).

Figure 1. Bar Coding System

Finally, every Beep*f* holds tremendous promise to increase the most important thing for any family, their health. This goal is being realized today within the healthcare industry and across industries in the area of food safety and traceability. Both groups are actively engaged in making the world a better place for all by adopting the benefits of Beep*f* to increase patient safety and food safety.

It manages a global system that allows companies all around the world to globally and uniquely identify their physical things like trade items (products & services), assets, logistic units, shipments and physical locations and logical things like a corporation or a service relationship between provider and recipient. When this powerful identification system is combined with Barcodes, EPC tags, eCom business messages, and the Global Data Synchronization Network (GDSN), the connection is made between these physical or logical things and the information the supply chain needs about them. With the connection made, one world of global commerce comes into view.

Button Memory

Contact Memory Button is a battery-free read/write electronic data storage technology designed to perform in extreme operating environments associated with military, aerospace, utility, transportation and industrial applications. Button Memory enhances configuration management, asset tracking and inspection and maintenance functions throughout the service life of the asset to which it is attached. In addition to exceptional durability, Contact Memory Buttons offer the potential to improve productivity by eliminating or reducing the time and inconvenience associated with accessing a central database. Data stored on a Button Memory is retrieved by momentary contact using a probe and can be viewed and updated on site. Each button has a unique serial number.

Contact Memory Buttons have been tested to rugged military specifications including the applicable requirements of MIL STD-810F. Environmental test parameters include exposure to temperature extremes, shock, vibration, radiation, electrostatic discharge (ESD), electromagnetic interference (EMI) and electromagnetic pulse (EMP). The technology is available in a variety of physical sizes with memory capacities up to 512MB.

RFID Tags

Radio Frequency Identification is a method of storing and receiving data using a small object such as a label that can be attached to almost everything. It can be used to hold data about the product it is attached to ˘ for example its specification or its build history, or even its temperature through a period of its life. One of the main reasons for the increase in the use of RFID has increased while the cost of the tags and readers has significantly decreased.

There are three basic types of RFID tag while all work on the same principle that the tag contains a tiny antenna that passes data to an RFID scanner. The scanner passes that data on to an application for interpretation. For instance, if the tag is being used to monitor transmit movements, then the application could provide track and trace information, or if the tag is being used to monitor stock usage, the application could be used to trigger the re-order process (Figure 2).

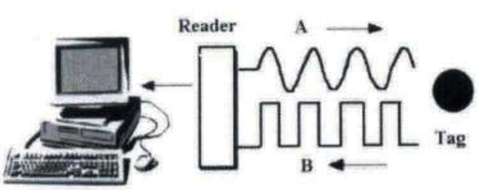

Figure 2. RFID Typical Layout

Unlike the current bar code technology, RFID tags do not require contact or line of sight access for communication and can be used in adverse atmospheric conditions. RFID data can also be read through most non-metallic materials allowing simultaneous multiple reads. The typical functions in logistics using RFID from distribution center to a truck and truck to a trucking terminal and from trucking terminal onto another vehicle for transport to a retailer or retailer distribution center.

Applications of RFID in Industry

Ford puts RFID tags on each parts bin. Warehouse operators now know, in seconds, when supplies run low and automatically deliver parts as needed to workers on the assembly line.

RFID is tracking shipments and eventually individual products, so they can be stocked on demand in stores. P&G expects to cut its $3.5 billion inventory in half and cut costs by $400 million a year.

Gillette bought 500 million tags from Alien Technology by the end of 2002. But it is not clear how much the tags cost and what will they be used for large establishments such as Wal-Mart, Woolworths, DHL, Fed-Ex, United States Postal Service are testing RFID products in their operations.

Conclusion

As a matter of epilogue, it is to be mentioned that during the next one decade the entire external market environment will be dominated by the concept of Supply Chain sales enabled by the emerging technologies, particularly the concept skills such as WAP, RFID, Bar Coding and Button Memory etc. However in the wish list of the contemporary school, the latest technology applicable to Logistics & Supply Chain Management will occupy the major crease. To that end integration of the end-to-end supply chains should be viewed as the biggest imperative for the industry along with all encompassing IT system.

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SIMULATION MODELING: A KEY FOR BUSINESS PROCESS CHANGE

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Abstract: *Many different methods and techniques can be used for modeling business processes in order to give an understanding of possible scenarios for improvements. The simulation modeling shows the process as a whole, drawback of the existing process, bottlenecks in the process execution and provides critical insight into process execution. The results of the simulation modeling represent a good foundation for a business process reengineering as a next step towards e-business introduction. The main goal of the paper is to present and discuss the level of information system modeling and simulation modeling methods and tools integration in the conditions of dynamic e-business environment. The paper also stressed the necessity for integrating simulation modeling and information system modeling. The examples of business process modeling and simulation tools are also presented.*

Introduction

The nineties of the last century had a focus on changing the business processes hand in hand with the introduction of new information technology. In the 90s, business process reengineering (BPR) focused on internal benefits such as cost reduction, the downsizing of a company and operational efficiency, which are more tactical than strategically focused. Now a days, e-business renovation (BR) strategies focus on the processes between business partners and the applications supporting these processes. These strategies are designed to address different types of processes with the emphasis on different aspects (Kalakota and Robinson, 2002): customer relationship management, supply chain management, selling-chain management and enterprise resource planning. Many authors have shown that the awareness of IT capabilities and information systems modeling techniques influenced the design of business processes (Davenport, 1993; Gigalis, 2001; Grant, 2002; Arora and Kumar, 2000). In addition to investing in information technology, a new type of information systems models have to be designed. The dynamic structure of information systems demands the implementation of process-oriented methods and tools. Since prior to business process change, companies need to assess the costs of business process change and to compare it with the expected benefits, simulation modeling has an important role in the projects of business process reengineering. The main objective of this paper is to present and discuss the level of information system modeling and simulation modeling methods and tools integration in the conditions of dynamic e-business environment.

The paper is structured as follows. Following a brief overview of business renovation strategies, the main characteristics of simulation modeling methods and tools are summarized. A relationship between simulation modeling and information system modeling is described. Finally, the main findings of this research are discussed and concluding remarks are provided.

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The Overview of Business Process Change

The emphasis on business process change has gone through a number of phases in the last 15 years. First, there was the Total Quality Management (TQM) that refers to programs and initiatives to emphasize incremental improvement in work processes and outputs over an open-ended period of time (Davenport and Beers, 1995). In the early 1990s BPR has become one of the most popular topics in organizational management, creating new ways of doing business (Tumay, 1995). Since improving the business performance was not achieved by automating existing business activities, many leading organizations have conducted BPR in order to gain competitive advantage. The first wave of BPR was focused on internal business processes radical change. Furthermore, it was particularly suggested that TQM should be integrated with BPR (Al-Mashari and Zairi, 1999).

The second wave of BPR began in 1996 when the Internet and World Wide Web phenomenon took of and provided IT internet worked infrastructure that enabled electronic business and new forms of Web-based business processes (El Sawy, 2001). To meet customer demand, companies depend on close cooperation with customers and suppliers. BPR driven by e-business could not be based only on radical redesign of intra-organisational processes, but should be extended to the entire business network (internal and external).

An online partnership must extend far beyond presenting promotional and pre-sales activities on companies Web sites. It has to drill deep into a company s processes in order to create totally different business models. Therefore, most companies need to reevaluate and web-enable core processes to strengthen customer service operations, streamline supply chains and reach new customers. Traditional companies are forced to change their current business models and create new ones. The use of the Web and supply chain management has opened up the opportunities for exchanging information and managing knowledge around the new processes.

Business Process Change through Simulation Modeling

Business process change involves changes in people, processes and technology. As these changes happen over time, simulation appears to be a suitable process modeling method. The list of the available business process modeling tools supporting simulation is as long as over 50 names (Hommes, 2001). Simulation is often called a technique of last resort because it is used when the system to be modeled is too complex for analytical models (Oakshot, 1997). The interaction of people with processes and technology results in an infinite number of possible scenarios and outcomes that is not possible to predict and evaluate using widely popular static process modeling methods. Kettinger et al. (1997) mention simulation as one of the modeling methods in their survey on business process modeling methods.

The reasons for the introduction of simulation modeling into process modeling can be summarized as follows (Pidd, 1996):

- **Dynamic** ˘ process behaviour varies over time.
- **Interactive** ˘ processes consist of a number of components which interact with one another.
- **Complicated** ˘ the process consist of many interacting and dynamic objects.

The main advantage of simulation modeling is in its integration of the following functions: **analysis and assessment** of business processes, either in quantitative or qualitative terms; **development of to-be*f* models** in order to examine what-if*f* scenarios and **export to implementation platforms**, such as workflow management and enterprise resource planning systems. Modern simulation software tools are able to model dynamics of the processes and show it visually, which then can enhance generating the creative ideas on how to redesign the existing business processes. Such tools include graphic user interface (GUI) that enables process animation and graphical display of simulation results.

Several authors (Dennis et al., 2000; Greasly, 2000, Giaglis and Paul, 1996) have reported the application of simulation for business process redesign. Despite the numerous advantages of simulation software, it is apparent that some user requirements are still not adequately met. The survey on the use of simulation software tools conducted by Hlupic (2000) revealed that the main positive features are ease of model development and visual facilities, while main problems were lack of links with other packages (software compatibility) and lack of interfaces for data input.

Business Process Modeling Methods and Tools

Business process modeling projects can have different goals and similarly those creating the models could use different methods and tools (Table 1). Methods and tools for business process reengineering do not adhere to one particular business process modeling standard, but it must be pointed out that most modeling techniques used in business today have been developed for industrial engineering, software engineering or information systems modeling environment. Over the last three decades, a well-established procedure for modeling information systems was based on two complementary aspects of analysis: data modeling (entity-relationship modeling) and function modeling (data-flow diagramming). Since events which trigger a response in an information system come from within the organisation or from the external environment, it is obvious that a third representational framework is effectively a business process view (Scheer, 1994).

Table 1. Focus of different BPR Methods/ Tools

Focus of BPR Methods/ Tools	Example
Strategic planning	Balance Scorecard, Benchmarking
Accounting techniques	Activity based costing analysis, Return on investment
Continuous improvement	TQM, ISO Standard
Action coordination modeling	Action workflow modeling method
Dynamic process modeling	Petri nets

Giaglis (2001) developed a Taxonomy of Business Process Modeling techniques where the modeling techniques are classified by the purpose that they would have when used in business process modeling projects. According to this taxonomy, modeling techniques could have informational (data), organisational (where, who), behavioural (when, how) and functional (what) focus and can be used to fulfill different objectives: understanding & communicating, process improvement, process management, process development and process execution. It is obvious that there does not exist a single process modeling technique that covers all aspects of process modeling, specially the aspect of process dynamics.

There have been three generic approaches to solving the problem of system dynamics (El Sawy, 2001). One approach is to extend functional decomposition methods with event triggers in order to introduce task interdependence into the model. The example of this approach is the ARIS methodology.

The second approach is to extend action coordination methods with added workflow structure through Petri net activity representation, like it was done in the Role Activity Diagramming method or UML Activity Diagram. The third approach is to develop new process modeling methods that are focused on process flow and process dynamics, such as IDEF3 and Activity Decision Flow diagrams.

A Framework for Business Process Change

Process modeling is one of the most cost-effective and rewarding ideas to come along in years. On the other hand, the successful development of information systems require an integrated approach, which includes modeling of business processes, as well as, information systems modeling and development. Therefore a rapid growing number of frameworks and modeling tools have been developed for an integrated modeling of the entire enterprise with the focus to both organisational modeling and information systems modeling (Hommes and Reijswound, 2000).

Simulation Modeling and Information Systems Modeling: The Need for Integration

Nowadays, the ability to develop and deploy simulation models quickly and effectively is far more important than ever before. As process modeling is very much a business rather than technical role, a modeling tool must be simple to use by a non-technical business user. However, a number of factors such as inefficient data collection, lengthy model documentation and poorly planned experimentation prevent frequent deployment of simulation models (Perera and Liyanage, 2001).

In the majority of cases, the analysis of business process models is based on hand entered parameters such as time required to execute a given function, waiting time, availability and utilization of resources, etc. In cases where the business processes are supported by information systems, there is a transaction base which contains data on the processes and it is necessary to develop an interface for the business process database and to develop components with the task of exporting data from the production databases of a given information system and importing that data into the analytical bases, that is, to give parameters to the business process database.

The need for integration of simulation modeling and information systems modeling methods is evident in many cases. A flexible data collection link to a company s enterprise resource planning (ERP) database will undoubtedly improve the efficiency of model maintenance. Therefore, the methodology for rapid identification and collection of data structure for simulation modeling is developed by Perera and Liyanage (2001). It provides the link between the data conveniently stored in a database and the simulation model. This approach supports also the need for detailed model documentation via the use of standard modules from the functional model (IDEF0) library. Moreover, recent advances in simulation software (integration via VBA) afford the automatic creation of the entire simulation model.

Despite attempts to become user-friendly, dynamic discrete event modeling lends itself most readily to specific, single dimensional problems. Since the business practice has shown that there was no ideal simulation or business process modeling technique, the interfaces for automatic translation and integration of different techniques were developed. The examples are the software tools used for translation of IDEF diagrams into Petri nets: Design/IDEF, Design/CPN, Workflow Analyser, Service Model and WITNESS (Pinci and Shapiro, 1991; Shapiro, 1994). IDEF3 based descriptions were used to automatically generate WITNESS simulation code in the target language using ProSim (Painter et al., 1996).

Several frameworks have been developed which attempt to provide an open modeling architecture for general models, but most of them deal effectively with non-dynamic modeling issues whilst dynamic modeling issues have traditionally only been addressed at the operational level. These include IDEF, CAM-I, GIM, ARIS, IEM, the ISO Reference Model, CIMOSA and GERAM (Vernadat, 1996; O Sullivan, 1994). Therefore, the efforts are focused to apply simulation modeling in the enterprise modeling frameworks (Dewhurst et al., 2002).

The developers of the Unified Modeling Language (UML) have recognized the need for modeling methods which allow process modeling. Therefore diagrams like the use case diagram and the activity diagram have found their way into the UML (Lieberman, 2001).

Activity diagrams combine the various approaches of different technique such as event diagrams of Jim Odell, state diagrams and Petri nets. The Event-driven Process Chain (EPC) method was developed at the Institute for Information Systems (IWi) of the University of Saarland, Germany, in collaboration with SAP AG (Loos and Allweyer, 1998). As the key component of SAP R/3 s modeling concepts for business engineering and customizing, it is based on the concepts of stochastic networks and Petri nets.

The above examples from business practice have shown the existence of large market space to improve BPM tools with the components for dynamic modeling and measuring the performance of the processes and to integrate it with tools for developing information systems, which substantially decrease the time required to create the company s information system. According to the trends recognized from current business practice and literature, the typical features of integrated BPM tool could be summarized as in (Table 2).

Table 2. Features of Integrated BPM Tools

Feature	Description
Data Modeling	Providing the function of entity modelling, used to create logical data model to support business processes
Static Process Modeling	Used to build a top-downf understanding of processes and to analyse an enterprise process model static analysis (i.e. direct calculation of critical measures ˇ number of resources required, total process time, cost being incurred)
Dynamic Process Modeling	Used to design and communicate end-to-end business processes (a static process model can be modelling transferred easily into its corresponding dynamic model by entering time-related data)
Data & Process Modeling Interface	Mapping business processes to logical data, describing relationships between processes, applications and organizations
Repository	Used to manage objects and models, enables multi-user working and sharing of object between different views

The Examples of Integrated BPM Tools

ARIS (IDS Scheer) and Corporate Modeler (casewise) software tools are used to explain the basic ideas underlying business process modeling and simulation modeling. While ARIS is used to present the example of different BPR methods/tools integrated in the system (as explained in the Table 1), the description of Corporate Modeler presents the key building blocks of an integrated BPM tool (Table 2).

The **ARIS Toolset** (Architecture of Integrated Information System) version 6.1 of IDS Scheer stands for a group of systems, the essential feature of which consists in the functions of documenting, analyzing, changing, implementing and optimizing business processes. ARIS integrates business processes database and disposes of a browser enabled Front-End. This means platform independence for users, worldwide availability, high scalability and low administration costs (Scheer, 2002). Knowledge about company processes is stored in the ARIS database objects. Using the ARIS Toolset the enterprise business processes are analyzed and described. Each object is defined through different perspectives: **organization, function, data and process view** and attributes which could be used as the input parameters for **ARIS Simulation**, **ARIS ABC** (Activity Based Costing) and **ARIS BSC** (Balanced Scorecard) tool. Since ARIS Simulation is fully integrated in the ARIS Toolset, the data relating to the processes, recorded in the ARIS Toolset could be used as a basis for the simulation of business processes. This simulation supplies information about the executability of processes, process weak points and resource bottlenecks. There is also the **interface toward workflow management tools**, **CASE tools** (ORACLE Designer 6i) and **project management tools**. **ARIS Process Performance Manager** (ARIS PPM) automatically identifies performance data from company processes, especially those which span systems and thus makes it possible to analyze them. This information can be gathered from software systems, for example, for ERP, SCM, CRM, e- Business, or workflow management.

Another BPM tool to be presented in this paper is **Corporate Modeler 8e**. It supports six core diagram types. **Hierarchy Modeler** provides an overall picture of the business. Starting at the highest level, users can drill-down into the lowest level of detail for all object types. **Process Dynamics Modeler and Simulator** uses dynamics modeling to model activities and their dependencies within the end-to-end business process. It shows business events that trigger the process, the process flow, roles and responsibilities mapped as swim lanes, which illustrate which department is responsible for each process step. Process models can be simulated to produce statistical analysis of resource utilisation, throughput times, costs and overall performance. **Generic Modeler** allows the creation of user-defined notation style and symbology, which enables users to create their own diagram templates to model application architecture, EPC (SAP) Diagrams and Use Case Diagrams. Work level procedures, such as flowcharts and Activity-Based Modeling (ABM) diagrams can also be modelled. **Data Flow Modeler** depicts the information flow between processes, external entities and data stores. **Entity Modeler:** Enables users to design the data structure by defining tables, fields and their properties. This is used to create an entity relationship diagram. **Matrix Manager:** Defines the relationships between processes, entities, locations, application technologies, organisations and so on. The integration of the models to external applications is provided, including Sybase s Power Designer, Rational Rose, Staff-ware, Oracle Designer, ERwin, Telelogic and Visio. Corporate Modeler 8e provides tight integration allowing processes to be transferred to a workflow application. The aim of using business modeling is to develop a **framework** that:

- interrelates several business process modeling methods and techniques,
- is easy to design and understand,
- encourages standardization,
- provides a single business process repository and the use of a common process vocabulary,
- is able to tune and optimize the processes of a company
- provides model analysis, validation and testing
- is formal enough to serve for software development purposes.

Most of integrated BPM tools meet these requirements and therefore are used in BPR projects, but the authors have also observed some difficulties in using these tools. Very serious problem is **the inability to translate business models** into information (workflow) models. Except the potential benefits from process improvements and maximization of process performance via implementing process change, the key goals of companies projects are to model enterprise applications, integrate and interconnect different applications, providing an effective business environment that meets customers performance demands. While business models should act as a basis for creating suitable information systems and defining engineering requirements, BPM tools should enable the export of business process models to implementation platforms, such as workflow management and enterprise resource planning systems. To support the transition between the business process modeling and the information system (IS) modeling, the direct mapping and transition of all entities and activities defined during business process modeling should be enabled. Although the software interfaces between process modeling and IS modeling are developed, these interfaces might provide some syntactical translation but they cannot bridge the semantic gap between business processes and IS models. Here the manual revision of IS models is often more efficient and useful than the use of interfaces, but the problem is expected to be solved by the producers of BPM tools using the appropriate rule transformation approach and introducing the rule repository.

Rule repository is the core of a development environment providing appropriate tools for process, workflow, data and organisation modeling, process refinement, as well as import and export capabilities. It is also regarded as an integration link between business modeling and IS modeling. The motivation is to develop a rule repository to establish an environment in which business rules can be traced from their origin in the business environment through to their implementation in information systems. This provides the information necessary for rapid information system maintenance and adaptations to change in the business environment. Its purpose is to describe the activities that must be undertaken to achieve an explicit goal and establish a clear link between business process modeling and IS modeling.

Another problem noticed was **the risk of over-analyzing** existing business processes which led to the long period of modeling (1-2 years), producing a huge documentation on as-is*f* business processes and getting stuck in the business process analysis phase of the project (e.g., analysis paralysis) from which they were never able to move on. Therefore, the volume of business process models (i.e. number of models, number of diagrams and their levels) must be defined and strictly limited to the scope of the project.

Conclusions

To realize the business process change, most of companies use different methods and tools, which integrate components for static and dynamic modeling and measuring the performance of the processes. Simulation modeling is used to benchmark the current, As-IS*f* process, to verify model set-up and metrics and to test to-be scenarios when re-designing business processes or supply chains. Changes can be easily and inexpensively examined and graphical presentations can be used to gain organizational commitment to change. The integrated BPM tools combine formerly diverse areas of business process, IT, resource and financial modeling, enabling the companies to form a complete view of their operations and providing a framework for efficient development of a robust and complete enterprise architecture. Furthermore, the numerous interfaces are developed to enable the connection with tools for developing information systems, which substantially decrease the time required to create the company s information system and to permit fast and simple tracking of operations. These possibilities are shown in this research with the example of the ARIS and the Corporate Modeler toolset.

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Brikson, S., & Brewer, M.B. (2001). Identity orientation and intergroup relations in organisations. In M.A. Hogg & D.A. Terry (Eds.), Social identity processes in organisational contexts (pp. 49-65). Philadelphia: Psychology Press.

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