

BRANDING INTERNAL CUSTOMERS IN AVIATION SECTOR: **A CASE STUDY OF INDIGO AIRLINES**

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ABSTRACT

Employer branding is defined as a targeted long term strategy to manage awareness and perceptions of employees, potential employees and related stakeholders with regards to a particular firm (Sullivan, 2004). This includes direct and indirect experiences of dealing with the firm. Like actual product branding, organizations have started to invest employer branding as employees are the internal customers of the firm. The employer brand builds an image confirming the organization as a good place to work. Today, an effective employer brand is essential for competitive advantage. With the liberalization of the Indian economy in 1991 and subsequent economic reforms, Indian companies are becoming internationally strategic to utilize the employer brand to attract and retain talent which leads to expand and growth of the business. As the field of employee branding has begun to unfold, more and more executives have become interested in how this process can help them achieve a competitive advantage for their organizations.

This article explains how employee branding works and how it can be utilized to position the organization in the minds of customers, employees, and other stakeholders. A contextual analysis of its use as a source of sustainable competitive advantage at INDIGO Airlines is presented. Finally, key success factors are identified for those who wish to make employee branding a strategic focus within their organizations. This paper gives some concept on employer branding and also to examine how Indian organizations especially Indian aviation sector, with a positive corporate reputation can attract and retain employees. It also focuses to explain the importance, applicability, outcome and creating an effective employer branding strategy of Indian companies.

KEYWORDS

Employer Branding, Aviation, Indigo, Airlines, Indian Corporation, Competitive Advantage etc.

INTRODUCTION

The term "employer brand" was first publicly introduced to a management audience in 1990, and defined by Simon Barrow, chairman of People in Business, and Tim Ambler, Senior Fellow of London Business School, in the Journal of Brand Management in December 1996. This academic paper was the first published attempt to "test the application of brand management techniques to human resource management". Within this paper, Simon Barrow and Tim Ambler defined the employer brand as "the package of functional, economic and psychological benefits provided by employment, and identified with the employing company". By 2001, of 138 leading companies surveyed by the Conference Board in North America, 40% claimed to be actively engaged in some form of employer branding activity. In 2003, an employer brand survey conducted by the Economist among a global panel of readers revealed a 61% level of awareness of the term "employer brand" among HR professionals and 41% among non-HR professionals. The first book on the subject was published in 2005, and the second in 2006. In 2008, Jackie Orme, the Director General of the UK Chartered Institute of Personnel Directors confirmed the growing status of the discipline in her opening address to the CIPD annual conference, with the observation that: "When I started out in the profession, nobody talked about employer branding. Now it's absolutely integral to business strategy resonating well beyond the doors of the HR department". Similar recognition of the growing importance of employer brand thinking and practice has also been recently in evidence in the USA, Australasia, Asia, and Europe, [with the publication of numerous books on the subject.

Employer Branding

While the term "employer brand" denotes what people currently associate with an organisation, employer branding has been defined as the sum of a company's efforts to communicate to existing and prospective staff what makes it a desirable place to work, and the active management of "a company's image as seen through the eyes of its associates and potential hires".

Employer Brand Management

Employer brand management expands the scope of this brand intervention beyond communication to incorporate every aspect of the employment experience, and the people management processes and practices (often referred to as "touch-points") that shape the perceptions of existing and prospective employees. In other words, employer brand management addresses the reality of the employment experience and not simply its presentation. By doing so it supports both external recruitment of right kind of talent sought by an organisation to achieve its goals, and subsequent desire for effective employee engagement and employee retention.

Employer Brand Proposition

As for consumer brands, most employer brand practitioners and authors argue that effective employer branding and brand management requires a clear Employer Brand proposition, or Employee value proposition. This serves to: define what the

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organisation would most like to be associated with as an employer; highlight the attributes that differentiate the organisation from other employers; and clarify the 'give and get' of the employment deal (balancing the value that employees are expected to contribute with the value from employment that they can expect in return). This latter aspect of the employer brand proposition is often referred to in the HR literature as the "psychological contract".

RELATIONSHIP BETWEEN EMPLOYER BRANDING AND INTERNAL MARKETING

Internal marketing focuses on communicating the customer brand promise, and the attitudes and behaviours expected from employees to deliver on that promise. While it is clearly beneficial to the organisation for employees to understand their role in delivering the customer brand promise, the effectiveness of internal marketing activities can often be short-lived if the brand values on which the service experience is founded are not experienced by the employees in their interactions with the organization. This is the gap that employer brand thinking and practice seeks to address with a more mutually beneficial employment deal / Psychological contract.

Compared with the more typically customer centric focus of Internal marketing, internal branding / brand engagement takes a more 'inside-out', value-based approach to shaping employee perceptions and behaviours, following the lead of the highly influential 'Built to Last: Successful Habits of Visionary Companies' study published in the mid-90's. This sought to demonstrate that companies with consistent, distinctive and deeply held values tended to outperform those companies with a less clear and articulated ethos. While brand-led culture change is often the stated desire of these programmes their focus on communication-led, marketing methods (however, involving or experiential) has been prone to the same failings of conventional internal marketing. Amazon.com's founder, Jeff Bezos, asserts: "One of things you find in companies is that once a culture is formed it takes nuclear weaponry to change it". You cannot simply assert your way to a new culture, no more can you assert your way to a strong brand, it needs to be consistently and continuously shaped and managed, which is one of the primary reasons many organisations have turned from the short term engagement focus of internal branding initiatives to more long term focus of employer brand management.

Branding is what marketers practice to increase the sales of their products or services and has become common knowledge. Employer branding, however, is still a practice that seems to elude most. Ask the average person what it means and they'll probably say they've never heard the term. A search for the words "employer branding" on Google brings 391,000 hits. "Corporate branding", however, produces over half a million hits. If it is just the word "branding" alone, it delivers 30 million search results. And marketing, unsurprisingly, brings in 450 million search results. Look for "employer branding" books on Amazon.com and it delivers 38 options, whereas books on "branding" produces 2,622 hits and on "marketing" a whopping 352,000 results. Case closed! Employer branding is not common knowledge. Yet, what is it and why does it matter?

As defined "Employer branding is the strategy companies use to appeal to desired current and future ideal talent". In other words, employer branding is to convey to the 'employees that matter', why an employer's workplace is appealing and unique. The purpose is to make it easier for the employer to attract good workers, or even more importantly to get the top talent it needs from the job market. Employer branding has definitely become a critical management tool. In fact, 47 per cent of all employers say that the promotion of their employer brand will be higher this year, compared to only 6 per cent that said lower. Maybe not yet commonplace, but it's definitely an activity that businesses are starting to adopt to stay ahead of those employers who gobble up and keep the best people for the jobs.

FIVE REASONS WHY EMPLOYER BRANDING IS IMPORTANT

This study focus on five reasons why employer branding should be a vital management tool for every organisation today:

1. **Shortage of Skilled Labour:** with the emergence of China, Russia, India and Brazil as economic powers, and due to the aging population in the U.S., European Union and Japan, the competition for skilled workers has or will continue to increase. Adding to this trend, there is also a clear shift in students' preferences moving from technical degrees to non-technical degrees. Companies or organisations that are perceived to be attractive employers will have an easier time to recruit top talent.
2. **More with Less:** a mantra coined during this economic downturn, there is high pressure to cut costs and increase productivity, which has made the need to get the right people in the right jobs even more crucial. Employer branding results in more successful recruitment and retention of top talent. Moreover, by properly communicating the reality of the work environment, companies are more likely to attract talent that fits their organisational culture, thus increasing the number of people with the right skills in the correct positions.
3. **Growth & Profitability:** hiring and retaining top performers is essential for growth and to maintain a competitive edge. Employees who have the right skills, experience and knowledge, in relation to the critical areas of a business to drive growth, are strategically important. In addition, as developed economies move more towards the tertiary/service sectors, people become the primary asset. Employer branding increases your profit margin.
4. **Popularity:** research on the talent market reveals that graduates and professionals want to work for companies with great reputations; they often turn to family members, friends or colleagues for advice and approval when making a decision about which employers to consider. Moreover, the consumer/corporate/employer brands are intertwined: If a

company is viewed as being an unpopular employer, it will consequently affect everything else and cause disequilibrium in the corporate ecosystem.

5. **Strength:** being an attractive employer provides a company or organisation more bargaining power, as employees will want to work for them more than anyone else, even those that have rare or most in demand skills—irrespective of salary levels. An attractive employer can create for employees an illusion that their choices are limited outside of the organisation, constantly maintaining an image of being the most desirable employer, giving the right reasons or incentives for their top performers to stay.

EMPLOYER BRANDING – A FIVE STEP PROCESS

Now that the importance of employer branding has been explained, the next step is for companies or organisations to start their employer branding. This newly created **Employer Branding Model (EBM)** identifies key processes that will work for any organisation or company. This model can be useful for those that are new to employer branding and are not sure where to start:

Research: to understand where an employer is positioned in the employment market and to determine the appropriate action plan is fundamental. The four important factors, both internally and externally, are:

- Know how the target group perceives the employer,
- Learn what the target group wants and needs from the employer,
- Discover where the employer is positioned in relation to its competition,
- Ensure that the research is updated regularly.

Employer Value Proposition (EVP): the company or organisation needs a unique employer offer. The EVP gives current and future employees a reason to work for an employer and reflects the company's competitive advantage. Employers that manage their EVP effectively benefit from an increase in their talent pool and employee engagement, as well as a potential decrease in salary costs. Typically, less attractive employers need to pay a wage premium to get top talent whereas attractive employers do not. By analysing the factors influencing the employer brand, and by defining a strong and true EVP, the employer will be able to deliver sound and consistent communications during the communication phase and develop an attractive, as well as unique, employer brand.

Communication Strategy: the development of a communication strategy is always based on research findings and a well-defined EVP. The EVP is a useful tool used by HR, Marketing or Communications to be able to emphasise the most attractive factors and be consistent in the employer communications. Once an employer knows who they want to talk to and what to communicate, the employer then has to choose the most efficient and effective channels for reaching them. Choosing the right channels and understanding how best to target various groups is also based on research.

Communication Solutions: the aim at this step is to express the employer value proposition (EVP) by using the right words and images, so it becomes consistent with the corporate identity and branding efforts. The communication material should have the same look and feel irrespective of communication channel. Since organisations use many different channels, it is vital that the target groups recognise the organisation and relate to the employer offer, no matter if they are being reached via the corporate website, reading an advertisement in the newspaper or taking part in an event. Employers should strive to develop consistency throughout their communication material.

Action: implementing all the steps and monitoring closely what works and needs to be adjusted along the way is the final stage. It is of great importance at this point that the organisation sets targets on what they want to achieve with the planned activities in a clear and measurable way.

Employer branding in a nutshell is match-making, creating the perfect relationship between the employer and the employee. Employers should research their environment to know how their target group perceives them, understand what they want and need from them and understand their market position. They will need to develop or update their EVP to be consistent in their communications and help people in the organisation be the brand. They will need to communicate or implement tactics to build or reinforce the desired employer image. Finally, an evaluation of all activities will need to be made to ensure that they are on track. Securing a talent pipeline and ensuring that companies have the right people on board is probably the most important task of any employer. To be able to succeed you need knowledge. For example, understanding what professionals want will help you to attract them. If you do not know the answers to these questions, it is probably time to find out.

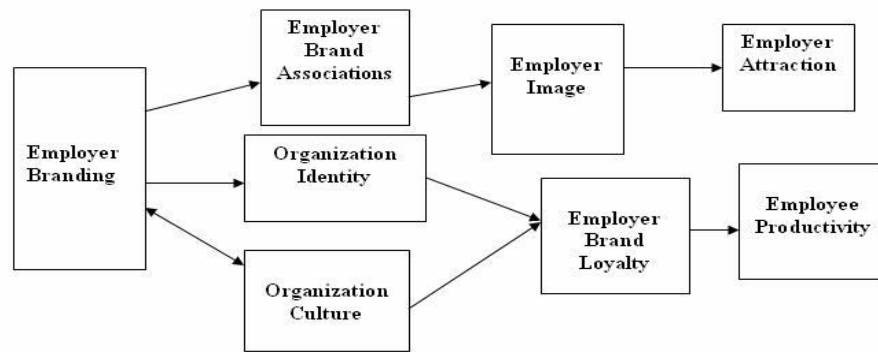
INTERESTING FACTS TO KNOW ABOUT FROM EMPLOYERS THIS YEAR

Having questioned employers about their employer branding in INDIGO Airlines, the following results from its employer branding survey:

- Employer Brand strategy is predominantly based on management's vision, goals and objectives (64 per cent), followed by best practices (55 per cent) and research on the talent market (51 per cent).

- Thirty- two per cent of employers worldwide say there will be an increase in graduate recruitment for 2010. In Central Europe, it's twenty four percent of employers confirming so. Utilities, government/public services & financials are the top three industries that will increase recruitment.
- Thirty-eight per cent say there will be an increase in the recruitment of young professionals. Thirty per cent of employers in Central Europe say that they will recruit more of them. IT, financials and government/public services, are the top three industries that will increase their recruitment.
- Attrition rates are expected to be 8.3 per cent, with the highest attrition rate to be experienced in Western Europe at 10.9 per cent. The top three most affected industries are Telecommunication services, Financials and Utilities.
- The three channels that will be the most used for employer brand promotion this year are the corporate website

Figure-1: Employer Branding and its Determinants



Sources: Authors Compilation.

A STRATEGIC MODEL DEVELOPED ON EMPLOYER BRANDING

In developing product branding strategy, a lot of factors are involved. They are i) nature of business, ii) nature of market, iii) target reception, iv) budget flexibility, v) long term mission of the organization, and vi) organizational structure. Similarly in employer branding, the organisations are following to develop their brands. Every organisation has an external brand and an internal brand. The external brand is the image that an organization projects to the customers, suppliers, investors, and the public. The internal brand is the image of the employers to the employees. When properly planned and executed, an employer branding initiative can generate lively dialogue between an employer and its employees, build a rationale for a 'mutual working arrangement', and establish compelling reasons to commit to the arrangement.

External Branding

External branding refers to branding which is done by using external sources and which may (or may not) require some investment in monetary or other forms:

- Use of job sites – As HR the first thing which comes to the mind is recruitment, so Job sites also offer good branding opportunities through different means like Pop ups, pop ins etc.
- Banners – Banners are also a good mean for branding. Banners can be of both types' means Online Banner and Street banners. By Online banner, the organization name will be flashed on different web pages as per your choice and price.
- Organizing seminar, presentationThe organization can organize talks, presentations, seminars etc. for attracting people towards your organization.
- Corporate social responsibility (CSR) Corporate social responsibility refers to corporate getting associated with society for some noble cause. The association can be in any mode either getting associated with a Charitable Trust or a NGO or some other public venture.
- Public events – Public events are one of the major ways of creating a brand image. An organization can participate in any of the public event and assuring that it does not get disappeared in the crowd of many brands or big names.
- Newspapers-Branding can be done through newspapers as well. If you target the local public, you can go for advertisements considering the individual day circulation, target readers, rapport of newspaper, type of newspaper etc. If you target only to employ people for your workforce requirement, you can place job Ads which may seem expensive at the first glance but in terms of attracting the correct workforce, it can do magic.
- Email – For mail ids related to job portals, the organization can create an auto reply which can contain brief description of the key aspects of candidate's and public interest and at the same time introducing that company to the public.

Internal Branding

Internal Branding is concerned with the current and potential employees' information about the employment experience and what is expected of them:

- Front office – Always pay attention to your front office because first impression is last impression. It should be kept neat and clean with a pleasant receptionist who always maintains freshness and welcomes the guests with courtesy.
- Stays interview – HR department can always conduct stay interviews in which they can interact with the employee and ask them regarding their career prospects, their alignment with the company, their feedback regarding their concerned departments, etc. These feedbacks could be analyzed and therefore an internal brand image of the company can be created.
- Exit interview – An exit always carries a fair chance of initiating the chain reaction among the employees. By analyzing the exiting reasons, the organization can overcome the justified ones in the future.
- Employee satisfaction: Employee satisfaction is always very important for any organization to grow. A satisfied employee is a productive employee. The company must create a good and positive rapport for the company in the market outside.
- Policy information: A policy should be designed in such a way that it holds good even after a long period of time. A frequent internal policy change sends a message to the outer world that the company is not consistent and reliable.
- Customer orientation: Customers are always the most important factors in business activities. The workforce should always be motivated towards delivery of customers' perceived requirements.
- Employee participation: Always try to ensure the maximum participation from the employee side, either in terms of internal events participation or external events.
- Trained employees: The organization should impart proper training of employees before they are engaged in work. The training should be in all the aspects like policies, vision, mission and activities of the organization. This will project a good picture of organization on the new employee.

CONCLUSIONS

Today, an effective employer brand is essential for gaining competitive advantage. Increasingly, Indian corporations are becoming intentionally strategic to utilise the employer brand to attract and retain talent for the expansion and growth. The increasing focus on competitive advantage is leading many Indian firms to rethink their employer brands. A powerful employer brand has the capacity to attract and retain talent and represent quality to its customers, with the goal of gaining global recognition in a sustainable manner. The right kind of employer branding has also plenty of advantages as it provides a personality to the company and helps structure recruitment. It pulls in the right kind of candidates and spells out the company's expectations from them right at the beginning. Most importantly, it ensures that the best employees stay on longer, thus allowing the company to carry on its operations smoothly. Ultimately, the key to a successful employer brand is to ensure that expectations are fully aligned with the realities of working for the organization.

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MANUFACTURING FRIENDLY COST MANAGEMENT FOR ENHANCED PRODUCTION COMPETITIVENESS OF INDIAN INDUSTRY: THE CASE OF LEAN MANUFACTURING

Baby P. P.² Dr. Manoj P. K.³

ABSTRACT

Worldwide there is growing significance of productivity and quality in industrial production, as a result of the ever-growing competition in industry and business – primarily emanating from the ongoing measures of globalization, liberalization and privatization. So also, there is a heightened need to improvise the cost effectiveness of manufacturing processes in order to withstand the pressures of competition. As a result, businesses continuously seek new and innovative approaches to production processes and manufacturing techniques, as well as explore new frontiers of technology for improvising manufacturing competitiveness.

One of the major ways of enhancing productivity and quality that is vitally significant today is the adoption of modern manufacturing philosophies. In the above scenario, there is utmost significance for the adoption of manufacturing friendly cost management practices. This is especially true for a developing nation like India wherein the growth of manufacturing is rather stagnant over the last two decades or more. In the Indian context, enhancement of manufacturing competitiveness has assumed vital significance today. On the one hand, economic deregulation measures have resulted in fierce competition in every industry.

On the other hand the contribution from industrial sector in general and manufacturing segment in particular towards the gross GDP (Gross Domestic Product) of the nation is remaining stagnant at about 17 percent of the total GDP over the last two decades or more. As enhancement of manufacturing competitiveness is very much a national priority in India now, this paper looks into the relevance of Lean Manufacturing in India for enhanced level of production competitiveness and hence the overall performance of the country's industrial sector.

KEYWORDS

Cost Management, Competitiveness, Lean Manufacturing, Value Added etc.

INTRODUCTION

Because of the ever-increasing pressure caused by changing customer preferences and also the utmost rapidity of technological innovations, the developed world has for quite a long time been adopting computerized automation in many a manufacturing process. This has resulted in mass production being gradually replaced by low volume but high variety production. This paradigm shift has underlined the much desired “flexibility” in the manufacturing system to meet the challenges caused by the increasingly pluralistic markets of the world economies, particularly in view of the economic liberalisation measures sweeping across the globe. Reduced lead times and lower level of work-in-process lead to significant economy in manufacturing.

By virtue of their advanced features, CNCMs (Computerised Numerically Controlled Machines), can manufacture components completely or almost completely in a single set up, and hence provide flexibility in such areas as Operations, Quality, Products, Process and Machines. Operation of CNCMs along with industrial robots and automated guided vehicles (AGVs) can minimize human intervention and human inaccuracy, and hence can significantly enhance the overall efficiency of production. So, greater flexibility is growingly being added to the manufacturing systems worldwide. Another step in this direction is the integration of flexibility in manufacturing systems has been the emergence of lean manufacturing, and a still further step ahead is that of agile manufacturing.

Both lean and agile manufacturing are represent “new systems of doing business” and they prove themselves to be paradigm shifts from established notions of mass production. These systems though originated in typical manufacturing settings have grown to such an extent that they can very meaningfully be applied even at the enterprise level for superior business performance. Lean manufacturing embraces many of the modern manufacturing concepts like flexible manufacturing, minimized the work-in-process, “pull” systems of production control, and set-up time reduction.

Lean manufacturing essentially involves four principles viz. (i) reduce waste to the maximum extent, (ii) perfect first-time quality, (iii) flexible production and (iv) continuous improvement. For an emerging economy like India, each of the above four parameters has got tremendous strategic significance, as these have a direct bearing on industrial productivity and manufacturing competitiveness.

Lean manufacturing means ‘make one pass one’. It has been proven to be quite superior to traditional batch and queue manufacturing, in many a production setting. It extensively uses lean tools such as value stream mapping and change over reductions. In view of the ever growing pressures of globalisation in general and the stagnancy in the performance of the Indian manufacturing sector during the last decade in particular, of late, the central government is giving top importance in enhancing the

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manufacturing competitiveness of Indian industry. This is primarily because of the fact that the contribution of industrial sector to the total GDP is stagnant over the years (at about 17 percent since 1990) despite an appreciable growth rate of above 55 percent at present in respect of the services sector. For a sustained and balanced growth of the economy, the above level of performance of industrial sector in general and that of manufacturing sector (within the industrial sector) in particular is not at all sufficient. What is required is enhanced competitiveness and efficiency of the manufacturing sector. Also, a disappointing feature of Indian economy is the not-so-encouraging growth of the SSI sector. This in turn inhibits fast economic development of India, and makes its growth highly imbalanced too.

The above state of affairs has prompted the policy makers to contemplate very seriously on manufacturing competitiveness of the nation, particularly the one with respect to the small scale sector. Accordingly, a separate national council called NMCC (National Manufacturing Competitiveness Council) has been constituted by the Government of India in 2004. NMCC brought out *The National Strategy for Manufacturing (NSM)* in March 2006. NSM states that a high level of GDP growth of 8 to 10 percent and providing gainful employment annually to over 8 Million boys and girls will be possible only if the different sectors of Indian economy competitive both in terms of quality and costs. NSM further points out that to unleash the creative energies of Indian entrepreneurs, businessmen, scientists, engineers and other professionals, and to create the right type of employment the manufacturing sector need to grow faster than other sectors and its share must reach 30 to 35 percent of the GDP by the year 2020.

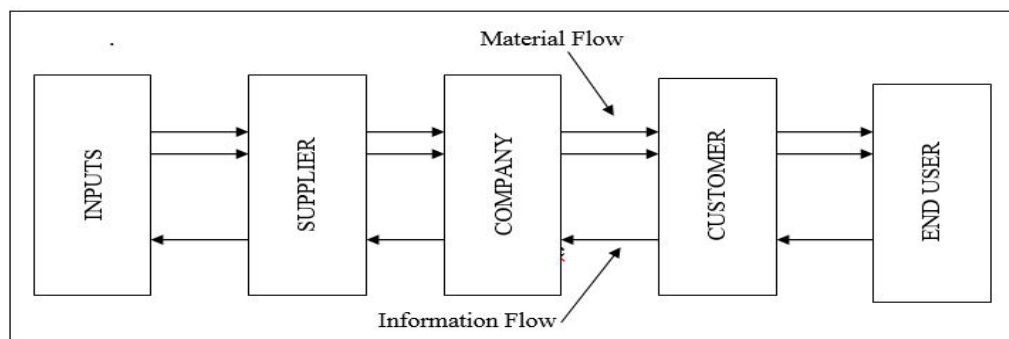
OBJECTIVES OF PAPER

- To study the concept of lean manufacturing, its evolution and also the major developments in this regard the world over till date;
- To study the significance, relevance and suitability of lean manufacturing in India in the current day context of economic deregulation and globalization; and
- To offer suggestions for the meaningful use of lean manufacturing systems in Indian manufacturing industry for its enhanced productivity and competitiveness.

LEAN MANUFACTURING: THE CONCEPT AND ITS EVOLUTION

Lean Manufacturing, as the term suggests, refers to removal of the excess or the unwanted from the manufacturing supply chain; the supply chain being the one which starts right from the raw material supplier and ends with the end-user or customer, after passing through various manufacturing processes. Supply chain is a system linking all parts of an organization, like, the inputs, the intermediate activities, the distribution centers, and the end users. [Figure (I)]

Figure-I: A Typical Supply Chain



Sources: Authors Compilation

VALUE ADDED AND NON-VALUE ADDED ACTIVITIES AND VALUE STREAM

As shown in Figure (1), a supply chain begins at the inputs and ends at the output, with a forward flow of materials, a backward flow of information and flows of resources within the chain in a direction as required. The primary aim of a supply chain is value addition to a raw input, and delivering the resulting output to the final user. However, in a supply chain, apart from the value addition activities, there may be non-value adding activities as well. Value added activities are those carried out on the input (material) that transform it to more closely resemble the final output. It is only the final output that has a value and only those activities that bring about the transformation from input to output are considered to be value adding activities.

Non-value added activities are those that do not change or transform any of the current object properties to bring it closer to achieving its final stage. Thus, lesser the non-value added activities, lesser the product lead times, lesser the company costs, and greater the productivity. As already noted, non-value added activities may exist in a supply chain, and often their number outnumber the value added activities. As complete elimination of non-value added activities is rather impossible, the attempt is always to control or reduce their occurrence. The value added and non-value added activities together form the exhaustive group of activities that comprise a supply chain.

All the activities that are employed to bring a product through from the raw material (input) stage along the supply chain in the order in which they are performed are known as the value stream – the value stream that determines the flow of materials in a system. In lean thinking, the ‘leanness’ is ensured by developing a value stream that eliminates all wastes including time and hence ensuring a level schedule; through three basic concepts. [Table (I)].

Table-I: The Three Fundamentals of Lean Thinking

Name of the Concept	Meaning / Implications
No.1. Removal of ‘Muda’ (Japanese word) (means Waste)	This concept involves elimination of ‘Muda’ (waste) i.e. an activity which consumes resources but does not add value.
No.2 ‘Kaikaku’ (Japanese word)	Radical Improvement
No.3 ‘Kizen’ (Japanese word)	Continuous incremental improvement.

Sources: Authors Compilation

Lean thinking enables the firm to identify and associate values to various activities and hence separate the activities from wastes. For doing this, a methodology named ‘mapping the value stream’ is employed; and the value adding activities are lined up in the sequence they appear and then are ordered in the best possible sequence. Lean thinking essentially means conducting of activities without interruptions and ensuring the performance of these activities more and more effectively.

One vital characteristic of lean thinking is that it seeks to provide higher and higher levels of work satisfaction. So, lean thinking may also be considered as a dynamic process of satisfying every person related to the organization with creation of value in each and every activity by the elimination of waste. This in turn necessitates an organization to draw upon the relevant information and knowledge from whatever sources available. Besides, it needs to concentrate on the needs and expectations of the customers and to “pull” the activities of the organization in such a way as to fulfill the customer needs and expectations. This “value addition” process needs to be done on an ongoing basis and also incrementally improved upon.

MINIMIZATION OF WASTES: THE UNDERLYING PHILOSOPHY BEHIND LEAN MANUFACTURING

Waste refers to those activities or items in a supply chain that are not absolutely necessary while imparting or assuring value in the product. This definition of waste calls for performing a very high level task in determining as to what value is and what adds or assures value. Determining waste in an organization is an extremely difficult task as what is set in daily routine may not just appear to be waste. It is the waste that results in unnecessary and unwanted expenditure of resources, which finally earns no returns. It creates no value, not in the product, nor in the system or organization. Rather, waste leads to such undesirable outcomes as higher lead times, excess inventory, time and labour utilization on rectifications, employee or goods movement (transportation) from one place to another without any purpose and so on.

Thus, it may be stated that waste is the feature that predominantly hinders the company from progressing, and elimination of this waste in all possible forms from an organization is the foremost step towards achieving increasing returns on decreasing investments. The underlying philosophy behind lean manufacturing is to minimize the wastes in an organization primarily through a leaner supply chain leaner, by eliminating or reducing to the extent possible, the non-value added activities in a manufacturing supply chain.

EVOLUTION OF LEAN MANUFACTURING: THE TOYOTA EXPERIENCE

Lean manufacturing as a concept took shape from the Toyota Production System (TPS), which completely transformed a small car manufacturer of Japan to become the world leader in its class. Toyota discovered that high quality, low cost and just-in-time delivery can be achieved simultaneously by “shortening the production flow by eliminating waste”. It is this simple concept that differentiates TPS from traditional mass production, the ideal of TPS being continuous, single piece flow.

The Toyota Production System (TPS) identified seven wastes of manufacturing and these are depicted in Table (II).

Table-II: The Seven Wastes of Manufacturing as Identified by the TPS

Types of Wastes	Manifestations and Implications (How these waste behave?)
No.1 Over Production	Making Ahead of Demand
No.2 Waiting	Delay from Previous Processing Steps
No.3 Transportation	Unnecessary Transport of Materials
No.4 Over Processing	Doing More Than Whatever Is Necessary
No.5 Inventories	More WIP than the Absolute Minimum.
No.6 Movement	Unnecessary Movement of People during the Course of Their Work
No.7 Defective Products	Products Do Not Meet Customer Requirements.

Sources: Authors Compilation

SIGNIFICANCE, RELEVANCE AND SUITABILITY OF LEAN MANUFACTURING IN THE INDIAN CONTEXT

For any economy, manufacturing is largely recognized as the main engine for economic growth and creation of wealth. This is particularly relevant for a developing economy like India wherein majority of its population depends on agriculture for livelihood. But, in India there has been a very distinct and disappointing trend in respect of the relative contribution of the different productive sectors to the GDP [Table (III) and Figure (II)]. Accordingly, it may be noted that:

- There has been a constant decline in the contribution of agriculture to GDP. From 31.3 percent in 1991-'92 it has constantly come down to just 22.1 percent in 2003-'04;
- Contribution of industry has been stagnant at about 27 percent between 1991 and 2003, of which the share of the manufacturing sector has been hovering at about 17 percent; and
- In respect of services sector, however, there has been a constant and commendable growth as it has registered 51.1 percent share in 2003-'04 as against 41.9 percent in 1991-'92.

Table-III: Share of Industry, Agriculture and Services in GDP

1991-'92			2003-'04		
Industry	Agriculture	Services	Industry	Agriculture	Services
26.7 percent	31.3 percent	41.9 percent	26.8 percent	22.1 percent	51.1 percent

Sources: *The National Strategy for Manufacturing*, National Manufacturing Competitiveness Council, Government of India, New Delhi.

Figure-II: Share of Industry, Agriculture and Services in GDP



Sources: *The National Strategy for Manufacturing*, National Manufacturing Competitiveness Council, Government of India, New Delhi.

The current share of manufacturing sector to GDP in India viz. 17 percent may be observed to be quite below the international standards, as is evident from the comparative figures shown in Table (IV) pertaining to some of the East Asian economies. [Figure (III)].

Table-IV: Share of Manufacturing in GDP of select East Asian Economies

Malaysia (2002)	Thailand (2002)	China (2002)	Mexico (2002)	India (2003)
31	34	35	19	17

Sources: World Development Indicators 2004

Figure-III: Share of Manufacturing in GDP of select East Asian Economies



Sources: Authors Compilation

For a sustained and balanced growth of the economy at the targeted level of 8 to 10 percent, a careful balance has to be maintained between the three major segments of the economy viz. agriculture, industry and services; or, in other words, balancing between “farm, factory and services”. The manufacturing sector in India grew only at an average of 6.3 percent during 1991 to 2003 as against 12 percent in China.

In the Indian scenario, manufacturing sector has to carry the major burden of increasing employment opportunities in the coming decades directly or indirectly; particularly in respect of the unemployment arising in rural and agricultural sectors. For instance, by 2025 the total proportion of workforce involved in agriculture is likely to decline from 56 percent (as of 2005) to 40 percent; and this in turn would call for substantial non-farm employment opportunities. Further, from the 1990s the employment intensity of the growth process in India is on the decline and accordingly the employment elasticity has been falling constantly from 0.59 (between 1983 to 1987) to 0.38 (between 1983 to 1993) and further to 0.33 (between 1993 to 1999); indicating increasing capital intensity and labour productivity.

Government of India has set up the National Manufacturing Competitiveness Council (NMCC) in 2004 as one of the instruments to help achieve this balanced and accelerated growth of the economy. To attain the targeted GDP growth rate of 8 to 10 percent as mentioned above, NMCC estimates that the share of manufacturing should be raised to the level of 30 to 35 percent by 2020. NMCC suggests that the decade 2006-2015 be treated as the Decade of Manufacturing for India and India should target a growth rate of 12 to 14 percent during the period, so as to improve its contribution to GDP to the level as mentioned above. Thus, manufacturing sector has got a very vital role to play in the Indian economy in the days to come.

Further, the manufacturing sector which accounts for just 12 percent of employment has the major burden of increasing the employment opportunities directly or indirectly. This is particularly because of the fact that though majority of the workforce, about 56 percent (as of 2005), depends on agriculture the contribution of agriculture to GDP is just 22 percent; and further, this share is constantly coming down year after year. In fact, NMCC estimates that the proportion of workforce involved in agriculture may come down from the current 56 percent to 40 percent over the next 20 years. Thus, the fast revival of manufacturing is essential for correcting the above imbalance in the allocation of manpower (in favour of manufacturing sector) and hence achieving enhanced productivity and rapid economic development. In short, robust growth in manufacturing is an imperative for creation of better employment possibilities as well as overall economic growth and development.

SUPERIOR PERFORMANCE OF MANUFACTURING SECTOR: VITAL FOR FASTER GROWTH

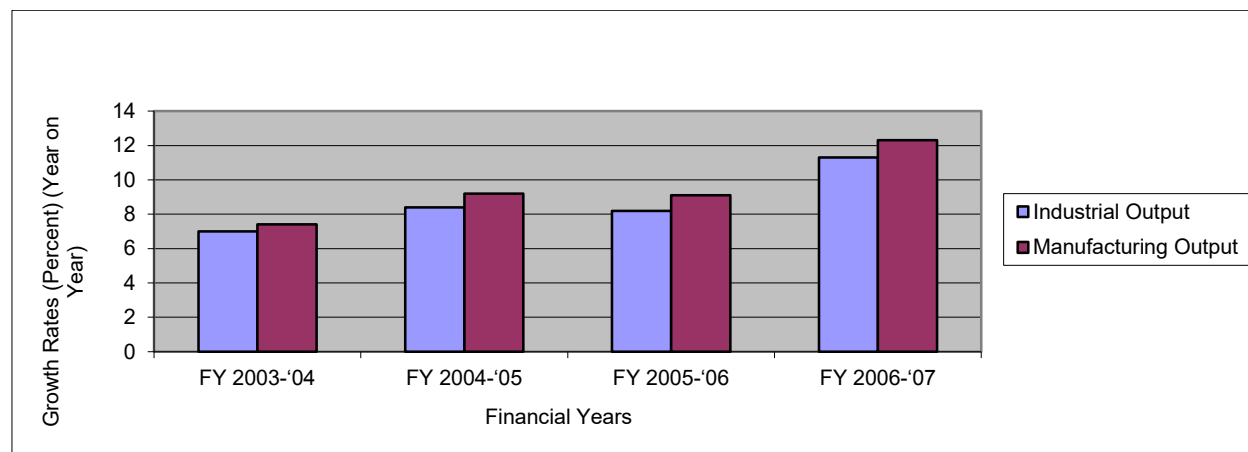
Because of the reasonably favourable macro economic environment and conducive policy decisions of the Government, there are indications of a revival of the Indian industrial sector, particularly the manufacturing component within it. For the last few years, there is gradual improvement in the growth rates of Indian industry in general and manufacturing in particular. [Table (V) and Figure (IV)].

Table-V: Growth in Industrial and Manufacturing Outputs – Gradual Rise (Percent) (Year on Year)

Particulars	Fin. Yr. 2004	Fin. Yr 2005	Fin. Yr 2006	Fin. Yr 2007
Overall Industrial Output	7.0	8.4	8.2	11.3
Manufacturing Output	7.4	9.2	9.1	12.3

Sources: Estimates of Central Statistical Organization (CSO)(2007) and NMCC (2007)

Figure-IV: Growth in Industrial and Manufacturing Outputs – Gradual Rise



Sources: Authors Compilation

In India, superior performance of manufacturing can considerably enhance industrial growth and hence the economic growth. From Table 3.3 and Figure 3.3, it is noted that during 2006-'07, the surge in manufacturing could push the growth rate of industrial production to double digits, i.e. from 8.2 percent (2005-'06) to 11.3 percent (2006-'07); the growth rates of the manufacturing component during these periods were 9.1 percent and 12.3 percent respectively.

COMPETITIVENESS: THE KEY TO ROBUST GROWTH OF MANUFACTURING SECTOR

In the emerging era of globalization, as the economies worldwide are fast getting integrated through forces of globalization, the key to robust growth of manufacturing sector for an emerging market economy like India lies in its competitiveness. The position of India in respect of competitiveness has been improving over the last few years. Among the BRIC (Brazil, Russia, India and China), India has got the highest position in respect of competitiveness and it has been the only country in this group to improve its position in 2006 from that of 2005. The Global Competitiveness Index (World Economic Forum) of the BRIC countries is shown in Table (VI).

Table-VI: Global Competitiveness Index of ‘BRIC’ Nations (World Economic Forum)

Name of the Country	Ranks 2005	Ranks 2006 (& Relative Change)
India	45	43 (+2)
China	48	54 (-6)
Russia	53	62 (-9)
Brazil	57	66 (-9)

Sources: Official Website of National Manufacturing Competitiveness Council (NMCC), GOI.

The recent Global Innovation Index (GII) developed by INSEAD and World Business shows a similar picture regarding the status of BRIC countries in innovation. [Table (VII)]

Table-VII: Global Innovation Index (GII) (INSEAD) of “BRIC” Countries (2007)

Rank (GII of INSEAD)	Name of the Country (BRIC)	Score
23	India	3.57
29	China	3.21
40	Brazil	2.84
54	Russia	2.60

Sources: Dutta, Sumitra, INSEAD, and Caulkin, Simon, “The world’s top innovators”, *Indian Management*, Vol. 46, Issue 3, March 2007, p. 76.]

Of the eight pillars of innovations underlying the INSEAD GII [viz. (i) institutions and policies, (ii) human capacity, (iii) infrastructure, (iv) technological sophistication, (v) business markets and capital, (vi) knowledge, (vii) competitiveness, and (viii) wealth], in respect of one pillar viz. competitiveness, India ranks fifth and is close to the advanced nations. [Table (VIII)]. In respect of none of the other seven pillars, India is occupying one among the first five ranks.)

Table-VIII: Pillar of Competitiveness of GII (INSEAD) of “BRIC” Countries (2007)

Rank (GII of INSEAD)	Name of the Country (BRIC)	Score
01	US	6.48
02	Germany	5.47
03	Japan	4.92
04	UK	4.81
05	India	4.71

Sources: Dutta, Sumitra, INSEAD, and Caulkin, Simon, “The world’s top innovators”, *Indian Management*, Vol. 46, Issue 3, March 2007, p. 74.

From the foregoing discussions, it is evident that in India the performance of the industrial output in general and manufacturing output in particular have been gradually improving over the years. So also, the competitiveness of India vis-à-vis other countries of the world, particularly the BRIC countries has been on the rise. However, there is no scope for complacency because the pattern needs to be sustained and further strengthened in the days to come, in view of the utmost rapidity of the developments especially the ever increasing competition in globalized markets.

BENEFITS OF LEAN THINKING: SOME EMPIRICAL EVIDENCE IN THE INDIAN SCENARIO

It may be noted that concepts such as ‘lean manufacturing’ and its later variants like agile manufacturing are of vital significance today.

Table-IX: Benefits of Lean Thinking – Performance Improvements Observed at “MTF” after the Implementation of Lean Manufacturing System

Parameters	After Implementing ‘Lean’	Before Implementing ‘Lean’
Lead times (products)	5-7 days	45 days
Lead times (major components)	2-7 days	30-60 days
Quality index (rejects and non-conformance levels)	0.3 percent (close to 5 Sigma)	20 percent
Customer satisfaction	96 percent	44 percent
Inventory turns	11.5	1.45
Products	8	2
Models	27	7
Domestic dealers	54	12
International dealers	18	2
Manpower	640	840
Turnover	+ 496 percent	
Profits	+ 15 percent	
Cost reduction to customers	22-29 percent	

Sources: Baitmangalkar, Sanjeev (2004), “The lean mindset”, The Indian Management, Vol. 43, Issue 11, November 2004, pp. 76-80.

It is worth noting that NMCC has included application of lean manufacturing as the No.1 item among the ten-point strategy identified by it for enhancing competitiveness of SMEs in India. Besides, the empirical studies done in India point to the significant gains achieved by the adoption of ‘lean thinking’. For a machine tool factory (MTF), the benefits derived from lean implementation are depicted in Table (IX).

In view of the foregoing discussions, it is clear that lean manufacturing as a manufacturing philosophy is of vital significance for an emerging economy like India because of the significant benefits that it offers as detailed above and also the peculiar socio-economic environment in India which calls for balanced economic growth and enhanced competitiveness.

LEAN MANUFACTURING: A PLAUSIBLE ALTERNATIVE TO IMPROVE MANUFACTURING COMPETITIVENESS

Lean Manufacturing: An Imperative

Lean manufacturing has already emerged as one of the most powerful manufacturing strategies the world over. Lean manufacturing attacks the worst of all organizational evils – the waste. Studies have shown that lean thinking can bring about productivity and competitiveness of very high order through enhanced Return on Investment (ROI), shorter lead times, greatly reduced cost, improved customer service, and improved product quality.

These benefits in turn ensure enhanced operational efficiency coupled with smoother process lines for the respective firms; and further, improved competitiveness and economic growth for the economy as a whole. In Indian scenario, robust growth in manufacturing is necessary for creating overall economic growth. Since competitiveness is central to robust growth in manufacturing, the vital significance of lean manufacturing and other modern manufacturing strategies need not be overemphasized.

The generally good macro economic scenario, improving trends in growth rates of the industrial output particularly manufacturing, improving competitiveness of the country’s industry and also other factors like availability of technically qualified and skilled manpower, natural resources etc. provide the country with the necessary infrastructure to further strengthen its position in respect of competitiveness and productivity of its industry.

Meaningful Implementation of Lean Manufacturing: A few Suggestions

Based on the foregoing discussions, the following steps are suggested for balanced and sustained growth of Indian industry in general and manufacturing sector within it in particular:

- Because of the ever-increasing need for accelerating growth, profitability and customer service in an emerging economy like India in the ongoing era of globalization, there is an imminent need for the adoption of lean production systems. Lean manufacturing, as a manufacturing strategy, needs to be encouraged among the industry at large, particularly the small scale units – the backbone of Indian industry. Towards this end, a concerted effort is required from the part of the industry, management and government. A national programme for implementation of lean manufacturing appears to be quite worthwhile.
- For attaining enhanced competitiveness, apart from adoption of lean systems, such other modern manufacturing, technological and managerial practices like 5S systems (Sort, Set in order, Shine, Standardize and Sustain), JIT (Just in Time), KANBAN, Cellular layout, Value stream mapping, TPM (Total Productive Maintenance), SOPs (Standard Operation Procedures) etc. need to be adopted by the industry and encouraged by government.
- Lean manufacturing, of late, is found to be suitable for any industry. But, it is more so in respect of low volume and high variety industries. Further, in the Indian scenario, certain industries are observed to have tremendous strategic significance to the economy in the current scenario viz. textiles & garments, leather & leather products, auto components, drugs & pharmaceuticals, food processing and IT hardware. As such, increased focus is required in the above priority industries.
- Competitiveness of manufacturing, particularly those in respect of cost and quality are of vital significance. Further, innovations of all sorts, particularly technological innovations, being important for improved productivity and competitiveness, the same need to be encouraged. So, productive R&D along with improved awareness in respect of IPRs (Intellectual Property Rights) need to be encouraged among the industry and business to take advantage of the ongoing product patent regime. Enhanced use of ICT (Information & Communication Technology) is another imperative for improving competitiveness.

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A STUDY ON THE EFFECTIVENESS OF ADVERTISING THROUGH TV CHANNELS

S. Prakash⁴

ABSTRACT

For decades advertising researchers have been interested in examining those message characteristics that may help curb commercial avoidance. For the most part researchers have focused on the effects of content variables such as information level, message tone and scenic beauty, while paying less attention to production-oriented advertisement features such as the pacing of the advertisement. This is understandable, given that pacing is generally not considered a primary feature of advertising copy.

The present study intends to find what factors might govern the television advertisement effectiveness, and also how those factors affects viewers of different age groups and different locality (Urban / Rural). In this context, it is very important to identify the viewer's perception about a better advertising through the TV channels without interrupt the program performance. The objectives of the study includes to identify and analyze the factors influencing the advertising effectiveness among various age groups and to find out the difference in advertising effectiveness in rural and urban areas. Statistical analyses such as Analysis of variance (ANOVA) and percentage analysis are used to test the hypothesis framed to analyse the objectives.

KEYWORDS

Advertising, Effectiveness, Program, Ratings, TV Channels, Viewers's etc.

INTRODUCTION

The vast majority of television advertisements today consist of brief advertising spots, ranging in length from a few seconds to several minutes. Advertisements of this sort have been used to sell every product imaginable over the years, from household products to goods and services, to political campaigns. Many television advertisements feature songs or melodies that generate sustained appeal, which may remain in the minds of television viewers long after the span of the advertising campaign. Advertising agencies often use humour as a tool in their creative marketing campaigns. Advertising agencies often use humour as a tool in their creative marketing campaigns. For example Vodafone advertisings. In fact, many psychological studies tried to demonstrate the effect of humour and indicate the way to empower advertising persuasion.

Advertising is a persuasive communication attempt to change or reinforce ones' prior attitude that is predictable of future behaviour. Advertisings that trigger an emotional response can grab an audience by the heart, hold their attention, and leave them with a warm and cozy feeling about the company, product or service.

REVIEW OF LITERATURE

The notions of audience activeness provide theoretical basis for the reduced opportunity to see advertisements, compared to programs. Rested in the uses and gratifications tradition, the active audience theory sees people as motivated and purposive participants in their communication processes. This theory, however, does not indicate audience activeness for every communication situation. Rather, it acknowledges the existence of conditional variables such as audience members' motives and the communication context that make the audience active or passive in communication processes. Motivation for the media use, for example, was reported as a moderating variable for audience activeness. Studying television viewers, Rubin (1984) identified two media use orientations (ritualized and instrumental), and found that instrumental motivation reflected greater purposive and active media use'. Likewise, previous research on television viewing suggests different motives and behaviour for programming and advertising and the influence of the individual audience.

It is unlikely that television viewers avoid every commercial they come in contact with (Danaher, 1995). Instead, avoiding or watching a commercial would likely be influenced by the communication context surrounding the advertisement. Previous research on advertising clutter and commercial patterning provides evidence for the contextual effect.

For example, studies of advertising clutter have demonstrated that the level of attention and recall decreases, as the number of commercials in an advertising break increases (Brown & Rothschild, 1993; Zhao, 1997). According to the advertising clutter research, the duration of a given advertising break may affect the size of the gap between the ratings for the program and the advertising break.

For decades advertising researchers have been interested in examining those message characteristics that may help curb commercial avoidance. For the most part researchers have focused on the effects of content variables such as information level, message tone and scenic beauty, while paying less attention to production-oriented advertisement features such as the pacing of the advertisement. This is understandable, given that pacing is generally not considered a primary feature of advertising copy.

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OBJECTIVES OF STUDY

1. To identify and analyze the factors influencing the advertising effectiveness among various age groups.
2. To find out the difference in advertising effectiveness in rural and urban areas.

RESEARCH METHODOLOGY

The data for the study was collected from primary and secondary sources. Primary data was collected through structured questionnaire distributed to 150 television viewers. Convenience sampling technique is used to collect data from the respondents. It was administered to the television viewers. The major content of questionnaire form includes age, gender, location, occupation etc. The questionnaire is designed with the help of the factors which identified under advertising effectiveness namely **Repetition / frequency** (Wen Zhou, 2004), **Ad Recall** (Sharma et al., 2000), **Pace of the Ad** (Pavelchak et al., 1991), **Program Rating** (Goldberget al.,1987), **Timing or time slot** (W. Scott et al.,2005), **Audience response / mood / attention** (Gerald J,1992), **Ad Eecutional Factors** (David H et al.,2000), and **Length of the commercial break** (Wen Zhou,2004).

The reliability analysis is conducted with each factors of advertising effectiveness. And to check whether the factors are reliable for the factors are, repetition and frequency, timing or time slot, advertising recall, Audience response / mood / attention, length of the commercial break, program rating, pace of the advertising, advertising executional factors etc. The repetition / frequency have .52 reliability, Advertising recall with reliability 0.51 both are near to 6, pace of the advertising have 0.75, programrating 0.69, advertising executional factors with reliability 0.78, Timing or time slot with 0.62, Audience response / mood / attention with reliability value 0.72.

Table-1: Reliability Analysis

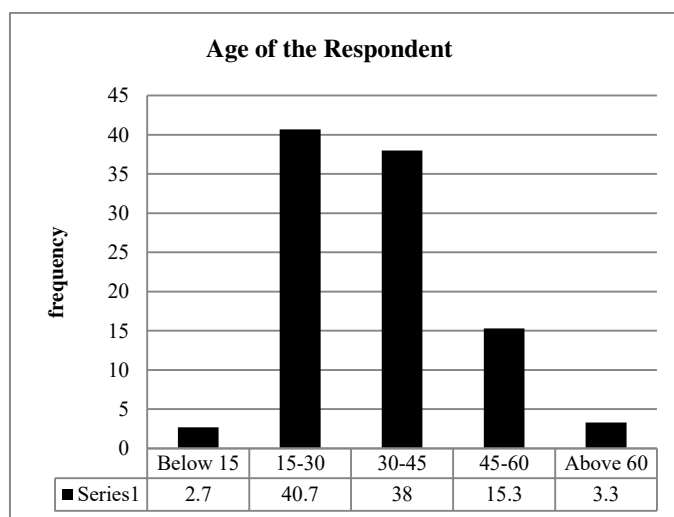
Sl.No.	Factor	Cronbach's Alpha Value
1	Repetition and frequency	.52
2	Audience response/mood/attention	.72
3	Advertising recall	.51
4	Program rating	.69
5	Pace of the advertising	.75
6	Timing or time slot	.62
7	Length of the commercial break	.73
8	Advertising executional factors	.78

Sources: Calculated Value.

ANALYSIS AND INTERPRETATION

It is evident that majority 40.7% of the respondents falls under the age group between 15-30, followed by the age group 30-35 with 38%, 45-60 with 15.3%. The age group above 60 is only 3.3% and 2.7% of the respondents are the age group of below 15.

Graph-1



Sources: Primary Data.

The frequencies of the number and length of commercials affect the effectiveness of advertisements by the respondents are grouped by using percentage analysis and the results are given below:

Mean and Standard Deviation

The mean value for the factors of advertising effectiveness is found and the results are interpreted below:

Table-2: Mean and S.D

FACTOR	Mean	Standard Deviation
Advertising repetition/frequency	2.78	0.66
Advertising timing/Time slot	2.56	0.51
Audience response, Viewer's mood and attention	2.67	0.70
Program rating	2.64	0.68
Pace of the advertising	2.94	0.93
Length of the commercial break	2.79	0.80
Executorial factors	2.70	0.90
Advertising recall	2.72	0.60

Sources: Calculated Value.

It is observed from table that Pace of the advertising (Mean=2.94) has the highest mean which is considered to be an important item under advertising effectiveness. Followed by Length of the commercial break have mean 2.70. It is observed from table that advertising timing (S.D=0.51) has the lowest SD which is considered to be an important item under advertising effectiveness. Followed by Advertising recall have SD 0.60.

One way ANOVA Analysis and Its Interpretation

One way ANOVA analyses were carried out to find the significant difference that exist between age group and Advertisement effectiveness factors. The analyses were done and the results with interpretations are given below.

Advertisement Effectiveness

The Advertisement effectiveness consist of advertising repetition/frequency, Advertising timing/Time slot, Audience response, Viewer's mood and attention, Program rating, Pace of the advertising, Length of the commercial break, Executorial factors and Advertising recall. These factors were considered as the dependent list and age group were considered as a factor while performing one way ANOVA.

Advertising Repetition / Frequency

The statement under Advertising repetition/frequency was analyzed with the help of One way ANOVA and the significant value is given in the below table.

Null Hypothesis (H₀): There is no significant difference that exists between age group and Advertising repetition/frequency.

Alternate Hypothesis (H₁): There is a significant difference that exists between age group and Advertising repetition/frequency.

Table-3: Advertising Repetition and Age of Respondents

	Mean squares	F value	Sig
Between groups	.261	.596	.666
Within groups	.438		
Total			

Sources: Calculated Value.

ANOVA test was conducted and p value was observed. The result shows that $p = .666$ which is greater than 0.05. Therefore null hypothesis is accepted. Hence there is no significant difference that exists between age group and Advertising repetition/frequency.

Advertising Timing / Time Slot

The statement under Advertising timing/Time slot was analyzed with the help of ANOVA and the significant value is given in Table-4.

Null hypothesis (H₀): There is no significant difference that exists between the age group and Advertising timing/Time slot.

Alternate hypothesis (H₁): There is a significant difference that exists between the age group and Advertising timing/Time slot.

Table-4: ANOVA for Advertising Timing / Time Slot Mean

	Mean Squares	F value	Sig
Between groups	.151	.566	.688
Within groups	.266		
Total			

Sources: Calculated Value.

ANOVA test was conducted and p value was observed. The result shows that $p = .688$ which is greater than 0.05. Therefore null hypothesis is accepted. Hence there is no significant difference that exists between age group and Advertising timing/Time slot.

Audience Response

The statement under audience response was analyzed with the help of ANOVA and the significant value is given Table-5.

Null hypothesis (H_0): There is no significant difference that exists between the age group and Audience response.

Alternate hypothesis (H_1): There is a significant difference that exists between the age group and Audience response.

Table-5: Audience Response

	Mean squares	F value	Sig
Between groups	.529	1.805	.366
Within groups	.428		
Total			

Sources: Calculated Value.

ANOVA test was conducted and p value was observed. The result shows that $p = 0.366$ which is greater than 0.05. Therefore null hypothesis is accepted. Hence there is no significant difference that exists between age group and Audience response.

Advertising Recall

The statement under Advertising recall was analyzed with the help of ANOVA and the significant value is given in Table-6

Null hypothesis (H_0): There is no significant difference that exists between the age group and Advertising recall.

Alternate hypothesis (H_1): There is a significant difference that exists between the age group and Advertising recall.

Table-6: Advertising Recall

	Mean squares	F value	Sig
Between groups	.851	2.476	.047
Within groups	.344		
Total			

Sources: Calculated Value.

ANOVA test was conducted and p value was observed. The result shows that $p = .047$ which is lesser than 0.05. Therefore null hypothesis is rejected. Hence there is a significant difference that exists between age group and Advertising recall.

Program Rating

The statement under Program rating was analyzed with the help of ANOVA and the significant value is given in Table-7

Null hypothesis (H_0): There is no significant difference that exists between the age group and Program rating.

Alternate hypothesis (H_1): There is a significant difference that exists between the age group and Program rating.

Table-7: Programme Rating

	Mean Squares	F value	Sig
Between groups	1.131	2.521	.044
Within groups	.448		
Total			

Sources: Calculated Value.

ANOVA test was conducted and p value was observed. The result shows that $p = .044$ which is lesser than 0.05. Therefore null hypothesis is rejected. Hence there is a significant difference that exists between age group and Program rating.

Pace of Advertising

The statement under pace of advertising was analyzed with the help of ANOVA and the significant value is given in Table-8.

Null hypothesis (H_0): There is no significant difference that exists between the age group and pace of the advertising.

Alternate hypothesis (H_1): There is a significant difference that exists between the age group and pace of the advertising.

Table-8: Pace of Advertising

	Mean squares	F value	Sig
Between groups	.293	.332	.856
Within groups	.882		
Total			

Sources: Calculated Value.

ANOVA test was conducted and p value was observed. The result shows that $p = .856$ which is greater than 0.05. Therefore null hypothesis is accepted. Hence there is no significant difference that exists between age group and pace of the advertising.

Length of Commercial Break

The statement under length of commercial breaks was analyzed with the help of ANOVA and the significant value is given in Table-9.

Null hypothesis (H_0): There is no significant difference that exists between the age group and length of the commercial break.

Alternate hypothesis (H_1): There is a significant difference that exists between the age group and length of the commercial break

Table-9: Length of Commercial Break

	Mean squares	F value	Sig
Between groups	1.515	2.460	.048
Within groups	.616		
Total			

Sources: Calculated Value.

ANOVA test was conducted and p value was observed. The result shows that $p = .048$ which is lesser than 0.05. Therefore null hypothesis is rejected. Hence there is a significant difference that exists between age group and of the length of the commercial break.

Executional Factors

The statement under exceptional factors was analyzed with the help of ANOVA and the significant value is given in Table-10.

Null hypothesis (H_0): There is no significant difference that exists between the age group and executional factors

Alternate hypothesis (H_1): There is a significant difference that exists between the age group and executional factors.

Table-10: Executional Factors

	Mean squares	F value	Sig
Between groups	.304	.372	.828
Within groups	.817		
Total			

Sources: Calculated Value.

ANOVA test was conducted and p value was observed. The result shows that $p = .828$ which is greater than 0.05. Therefore null hypothesis is accepted. Hence there is no significant difference that exists between age group and executional factors.

CONCLUSIONS

The study empirically examined advertising efficiency, an issue critical to advertising media planning practices. Specifically, this study makes some contribution to the literature on television viewing in general and advertising exposure / delivery in particular, by quantifying the size of the gap between program and advertising deliveries and offering an approach to sizing efficiency of television advertising. The TV advertisingvertisement is generally considered the most effective mass-market advertising format, and this is reflected by the high prices TV networks charge for commercial airtime during popular TV events. In general, advertisers covet the 18-49 age demographic; older viewers are of almost no interest to most advertisers. The number of viewers within the target demographic is more important to advertising revenues than total viewers. Also TV advertisers may also target

certain audiences of the population such as certain races, income level, and gender. In recent years, shows that tend to target young women tend to be more profitable for advertisements than shows targeted to younger men, this is due to the fact that younger men are watching TV less than their female counterparts. Entire industries exist that focus solely on the task of keeping the viewing audience interested enough to sit through advertisements. With the help of this study, it is found certain important factors which have direct influence in advertising effectiveness. The proper utilization of these factors TV advertisements can be made more effective.

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TQM PRACTICES IN MANUFACTURING AND SERVICE INDUSTRIES OF RAJASTHAN

Vibhor Paliwal⁵ Rahul Jain⁶

ABSTRACT

Total Quality Management is an integrative management Philosophy aimed at continuously improving the performance of products, processes and services to achieve and surpass customer expectations. There are many differences in manufacturing and service industries. The purpose of this study is to understand concept of TQM in both industry sectors and to identify the significant differences (if any) in TQM practices in Rajasthan's service and manufacturing organizations.

For this purpose related literature is collected and classified into various categories. The literature is deeply studied and the critical factors that influence the TQM success in industry are determined. Based on these factors a questionnaire was prepared which includes two types of questions, variable questions and ranking questions. The first eight questions are related to the company background and demographic data such as no. of employees, sector of business, type of industry, position of the respondent, etc.

The variable questions are grouped in to seven factors such as customer focus, continuous improvement, team work and involvement, top management commitment and recognition, training and development, communication in company, measurement and feedback. A total of 60 questionnaires were sent to both types of industry. Then questionnaires were collected back from various industries and the data was managed in a usable format and the t-test is applied on the data with the help of SPSS & MINITAB Software. The result recorded is that there is no significant difference in the application of TQM in manufacturing & Service industries.

KEYWORDS

Total Quality Management, Survey, Management, Commitment, Inseparability, Customer Focus, Improvement, Teamwork, Involvement, Recognition, Training, Development, Critical Success Factor etc.

INTRODUCTION

TQM views an organization as a collection of processes. It maintains that organizations must strive to continuously improve these processes by incorporating the knowledge and experiences of workers. The simple objective of TQM is "Do the right things, right the first time, every time". TQM is infinitely variable and adaptable. Although originally applied to manufacturing operations, and for a number of years only used in that area, TQM is now becoming recognized as a generic management tool, just as applicable in service and public sector organizations [Garg, (2006)]. There are a number of evolutionary strands, with different sectors creating their own versions from the common ancestor. This paper will make an attempt to present a comparative study in TQM practice in Rajasthan's service and manufacturing organizations. The paper discusses the results of a survey on Critical success factors (CSFs) of TQM implementation in Indian manufacturing and service industries. The paper begins with an overview of the CSFs for TQM, research methodology and data collection, reliability and validity tests conducted on the CSF instrument, followed by analysis of survey results.

OBJECTIVES OF STUDY

The present work has been undertaken to carry out Total Quality Management in manufacturing and service organizations. In order to accomplish this present work comprise of:

1. Survey and classification of literature on Total Quality Management.
2. Benefits of Total Quality Management in manufacturing and service organizations as stated in literature.
3. Short coming of Total Quality Management in manufacturing and service organizations as stated in literature.
4. Concept of Total Quality Management in manufacturing and service organizations.
5. Significant difference (if any) in Total Quality Management practices in manufacturing and service organizations.

OVERVIEW OF PROBLEMS AND BARRIERS WITH TQM IMPLEMENTATION

TQM is recently concerned to imply that it is a way of managing organization to improve product/service quality and the overall efficiency of production or companies operations. Although there is evidence that supports the effectiveness of TQM initiatives in organizations, a large number of studies have shown that between 60% and 80% of TQM initiatives fail, or fail to have shown significant impact on business performance. Research has also indicated that many organizations have encountered difficulties in implementing TQM. Researchers with in TQM fraternity have suggested the following reasons for these failures:

- Lack of Top Management Commitment.
- No supporting infrastructure for cultural change.

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- Lack of synergy between quality improvement programmes and overall business strategy.
- Poor management leadership.
- Lack of focus on the Process.
- Fear of Change.
- Misperception that TQM is a set of tools rather than a way of thinking.
- Inconsistent management commitment from department to department.
- Lack of rewards and recognition.
- Organizations are more concerned about short-term business returns rather than long-term sustainability of business performance.

DIFFERENCES BETWEEN SERVICES AND MANUFACTURING

Manufacturing is considered to be associated with those organizations where there is a very low level of direct contact with the customer, as in mining, farming and heavy engineering. Manufacture requires a physical transformation; a change in the form and utility of resources. In this research, manufacturing companies are defined as “those which produce tangible products with a significant element of their operations function involving manufacturing activities, such as raw materials being transformed to a product”.

Services are defined as “a process which transforms inputs such as strategy, technology, skills etc. in to an output i.e. service”. In this research, service companies are defined as those which produce intangibles with a service operations focus. Several researchers have identified four characteristics of services that distinguish service organizations from manufacturing organizations. These are: intangibility, inseparability, perishability, and heterogeneity. The differences between manufacturing and service industries are as follows:

Inseparability

This involves simultaneous production and consumption, which characterizes most services. The inability to store services is a critical feature of most service operations. Since the customer must be present during the production of many services, inseparability ‘forces the buyer into intimate contact with the production process’ [Carmen, (1990)]. This simultaneous production and consumption eliminates many opportunities for quality control intervention.

Intangibility

Because services are performances, ideas or concepts rather than objects, they cannot be seen, felt, tasted, heard or smelled in the same manner in which goods can be sensed [Ograjensek, (2002)]. When buying a product, the consumer is usually able to see, feel and oftentimes test its performance before purchase. However, with services, the consumer must often rely upon the reputation of the service firm. This thereby greatly influences the expectations aspect of quality measurement in services.

Perishability

This refers to the concept that a service cannot be saved or inventoried [Bessom, (1975)]. Hotel rooms going vacant, empty airline seats, and unfilled appointment times for a doctor are all examples of opportunity losses. This perishability presents a problem of synchronizing supply and demand, causing customers to wait or not be served altogether. The implications for customer satisfaction are quite obvious.

Heterogeneity

Since the same service can be provided by various employees at the same facility or different facilities, the quality and essence of the service can vary from provider to provider, from customer to customer, and from day to day. Attempting to offer a consistent service or to measure the variability of different performance types can be difficult. Unlike manufacturing, in which the product is inspected before delivery, services must rely upon a sequence of measures to ensure the consistency of output [Zeithaml, (1991)].

RESEARCH DESIGN AND DATA COLLECTION

Research methodology guides researchers to meet the objectives of the research in a structured and organized manner. A total of 60 questionnaires (30 each) are sent to both industrial sectors and service sectors. The questions in the questionnaire have been designed and adapted from the published work of leading academics in TQM research and the various articles given by researchers. The questionnaire is based on the seven critical factors identified from case study, conceptual and survey articles. The manufacturing industries included electronic, automotive, plastic and textile, while service industry included banking, hotels, insurance, hospitals, telecommunication and other public utilities.

The companies used for this research are chosen from Rajasthan. The method used for gathering data is postal survey. This method was chosen due to the advantage that the designed questionnaire could be sent to a large number of organizations in a limited time. The questionnaire included two types of questions, variable questions and ranking questions. The first eight questions are related to the company background and demographic data such as no. of employees, sector of the business, type of

industry, position of respondent etc. The variable questions are grouped in to 7 factors. Each factor is then divided into variables or statements.

Customer Focus

This factor covers the investigation of customer complaints, the specification of internal and external customer requirements and their satisfaction.

Continuous Improvement

This factor covers the continuous improvement activities on the system, processes and continuous monitor of employee's performance. Moreover, the review on the quality issues and identification of opportunities for improvement are also included in this factor.

Teamwork and Involvement

The participation of all employees in quality activities, implementation of quality improvement teams, team rewards and teamwork structures are included in this factor.

Top Management Commitment and Recognition

This factor includes the awareness and support of top management on the quality systems. The recognition of quality improvement and employees contribution is also covered in this factor.

Training and Development

This factor is related to the availability of training programmes to the employees. Training programs include the statistical improvement techniques, quality related matters and teamwork. Furthermore, the education for the suppliers and subcontractors are also covered.

Communication within Company

The cooperation between various departments or units within a company is covered in this factor. This factor accentuates the use of cross functional teams for problem solving and team working.

Measurement and Feedback

The measurement of the performance of processes, performance in financial and non financial terms and feedback provision are embedded into this factor.

As each variable is measured on a Likert Scale in the questionnaire, quantitative data analysis method was used. Moreover, it is important to verify the data reliability. The data collected is analyzed by using SPSS Version 7.5 and Minitab Version 13.

Paired Sample T-Test

Paired t computes a confidence interval and performs a hypothesis test of the difference between two population means when observations are paired (matched). Data when paired, as with before-and-after measurements, the paired t-procedure results in a smaller variance and greater power of detecting differences than would the above 2-sample t-procedure, which assumes that the samples were independently drawn.

Statistical test of null hypothesis is that two population means are equal. It is used when the observations for the two groups can be paired in some way; for example, when the same person is observed before and after a treatment. Pairing is used to make the two groups as similar as possible. Observed differences between the groups can then be attributed more readily to the variable of interest.

The Paired-samples T Test procedure compares the means of two variables for a single group. It computes the differences between values of the two variables for each case and tests whether the average differs from 0.

Correlation

Correlation calculates the Pearson product moment coefficient of correlation (also called the correlation coefficient or correlation) for pairs of variables. The correlation coefficient is a measure of the degree of linear relationship between two variables. You can obtain a p-value to test if there is sufficient evidence that the correlation coefficient is not zero.

Reliability and Validity of Data

The survey instrument is evaluated for reliability and validity. Reliability refers to the instrument's ability to provide consistent results in repeated uses. Validity refers to the degree to which the instrument measures the concept the researchers wants to measure. Three types of validity tests are considered: content validity, construct validity and criterion-related validity. Reliability or internal consistency can be estimated using a reliability coefficient such as Cronbach's Alpha (1951) [Cronbach, (1951)].

It is found that alpha values are significant and indicating that data is internally consistent and reliable as for Manufacturing organizations Cronbach's alpha is 0.7163 and for service organizations Cronbach's alpha is 0.7712 and for significant results the alpha value should be greater than 0.7.

Content Validity

Content validity depends on how well the researchers create measurement items to cover the content domain of the variable being measured. As a result, it is often subjectively judged by the researchers. The content validity of the questionnaire is based on the previous studies of Black and Porter (1996), Joseph et al. (1996), Mann and Kehoe (1995), Jiju Antony and Craig Fergusson (2004). So it is strongly believed that the factors considered for this comparative study have a content validity.

Construct Validity

For construct validity, one may generally check for unifactoriality. Unifactoriality means that a single factor is extracted for each test. In order to determine the construct validity, each factor was subjected to an individual principal component factor analysis to check for unifactoriality. The analysis indicates that all the 7 factors were unifactorial. The unifactorial nature of each factor is a measure of construct validity. All factors in each unifactorial test accounted for more than 60% of the variance of the respective variable tests.

Criterion-Related Validity

Criterion-related validity is concerned with the extent to which a measuring instrument is related to an independent measure of relevant criterion. However, no criterion was designed in this survey. The fact for this study may result in a better understanding of TQM in Indian manufacturing & service industries, to identify the opportunities for improvement of the implementation process.

Ranking of Data

The respondents were asked to rank the factors in descending order of importance from 1 to 7. The rank 1 means the most important factor for implementation of TQM and rank 7 means the least important. The scores were then added together to determine the list of factors in a hierarchical manner. Table-1 illustrates the total scores of each critical factor in both manufacturing and service organizations. The possible reason for the relative unimportance of communication in company is the nature of service industry.

A service may not involve the materials from suppliers for production of the service. For example, the quality of service in a federal express company depends mostly on whether the company is able to provide a reliable service or not. It is rather surprising to note from table-1 that communication in company is seem to be unimportant in Indian manufacturing & service industries, although a strong communication in company is one of the key drivers in the successful journey towards TQM.

Fig.1 and fig.2 present the scores of each factor in manufacturing and service industries respectively. These figures indicate that the total scores associated with the levels of quality management practice of factors are consistently lower for service organizations when compared to manufacturing organizations. This finding is consistent to the research of Jiju Antony and Craig Fergusson (2004). According to Jiju Antony, most service firms were not ready to digest and understand some of the factors of quality management. This observation and finding also explains why some service managers or respondents thought that some of the TQM success factors in the questionnaire did not apply to them.

Table-1: Results of Ranking Data

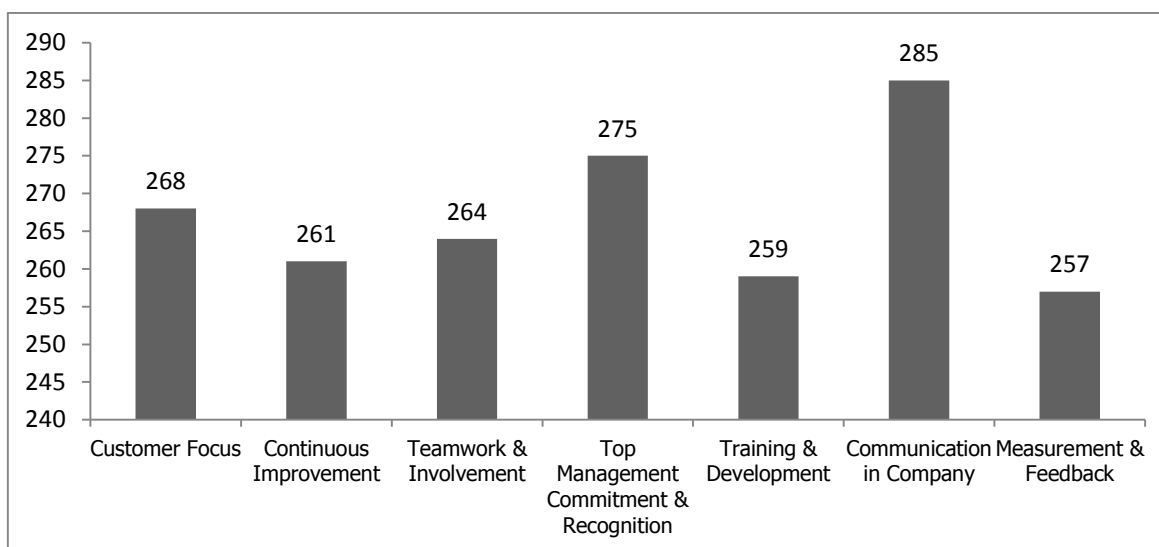
Sr. No.	Factor	Manufacturing Industry	Service Industry
1	Customer Focus	40	32
2	Continuous Improvement	38	42
3	Teamwork & Involvement	54	39
4	Top Management Commitment & Recognition	57	64
5	Training & Development	75	65
6	Communication in Company	79	79
7	Measurement & Feedback	67	71

Sources: Calculated Value.

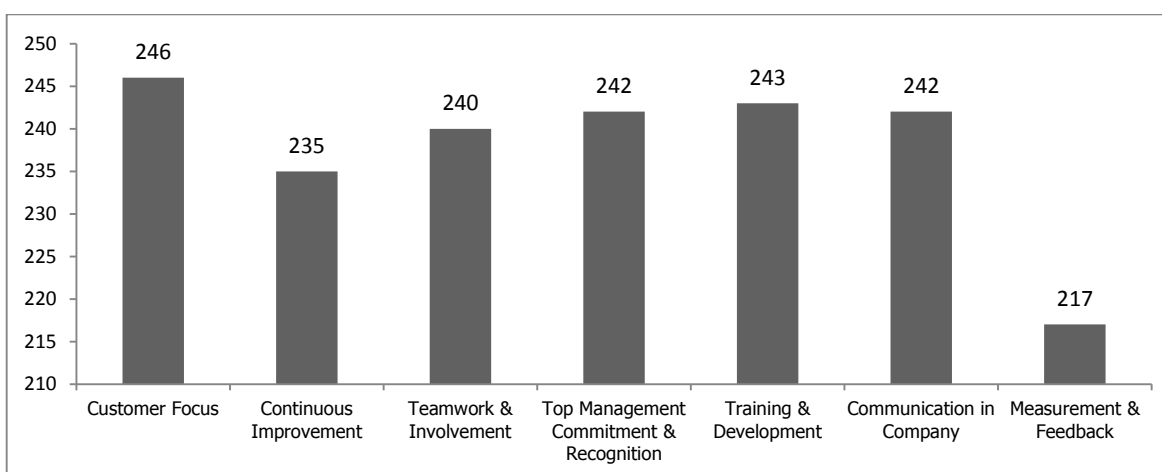
Table-2: Ranks of factors in Manufacturing & Service Industry

Sr. No.	Factor	Manufacturing Industry	Service Industry
1	Customer Focus	2	1
2	Continuous Improvement	1	3
3	Teamwork & Involvement	3	2
4	Top Management Commitment & Recognition	4	4
5	Training & Development	6	5
6	Communication in Company	7	7
7	Measurement & Feedback	5	6

Sources: Calculated Value.

Graph-1: Score of Each Factor in Indian Manufacturing Industries

Sources: Primary Data.

Graph-2: Score of Each Factor in Indian Service Industries

Sources: Primary Data.

Comparing TQM Implementation in the Manufacturing and Service Organizations

In order to compare the levels of TQM practice in both industrial sectors, it is important to define the question “Is there any significant differences on the mean for each factor between manufacturing and service sectors?” The levels of significance i.e. 5% is chosen to analyze the data. In order to compare the average scores of each factor in manufacturing & service industries, t-test is conducted with the help of SPSS & Minitab Software.

The software provides the so called p-value, which is used as the criterion to see as if there is any significant difference between the average scores in these two industries. Here p-value refers to the probability of obtaining the results of a statistical test by chance. If the p-value is less than the predetermined alpha level or significance level, then the null hypothesis (there is no difference in the mean score for a critical factor between manufacturing & service industries) shall be rejected. In other words, if the p-value is smaller than the alpha value, it can be concluded that the difference in the mean scores for a critical success factor is statistically significant.

Table-3 shows the different statistical values such as mean, standard deviation, p-value and significant correlation for different factors at 5% significance level. From the table it can be seen that none of the factors have p-value less than 0.05, it means that our hypothesis that there is no significance difference in the TQM implementation in manufacturing and service industries.

T-Test for perceptions between Manufacturing and Service Organizations

Table-3 shows that there is no significant difference between manufacturing and service organizations in TQM practices. All p-values are greater than 0.05. Table-3 also shows the significance correlation for each factor between manufacturing and service, which itself explains the importance of each factor for any organisation. Correlation in any case if is positive and near to 1 can be taken as significant for those correlated factors [Carmen, (1990)].

DISCUSSION AND KEY FINDINGS

From the various tables it can be seen that there is no significant difference in the critical factors for the implementation of TQM in manufacturing and service industries. From the table-3 it can be seen that the p value of each factor is greater than 0.05 which should be less than 0.05. It shows that there is no significant difference in the implementation of TQM in manufacturing and service industries in Rajasthan.

From table-1 and table-2 it can be seen that the communication in the company has the least importance in both manufacturing and service industries. The communication within the whole company is very important for effective and efficient operations. Better communication could reduce the misunderstanding and confusion of the requirements from internal and external customers. The top management is responsible to communicate and explain the quality goals and policies to companies' employees. Besides, the participation of top management in the process of quality management can motivate employees to take active part in quality activities.

CONCLUSIONS

The project presents the results of a survey on TQM carried out in the Indian manufacturing & service organizations. 60 questionnaires were sent to both manufacturing and service industries. A total of 7 factors consisting of 35 variables were considered in the questionnaire. It is found that all the 7 critical factors are considered to have lower importance for TQM practices in the Indian service industry when compared to manufacturing industry. The results of critical success factors in the Indian manufacturing and service industries were collected and then the factors were ranked accordingly as shown in the table-2.

LIMITATIONS OF STUDY

- Owing to the time limitation, a postal questionnaire survey was applied for this project. However, semi-structured interviews would enable us to have a greater understanding of the TQM practices in these companies.
- It would be better to carry out factor analysis on the data for identifying the critical success factors of TQM in both industrial sectors with statistical significance.
- It was found during the course of this research that the response rate for the postal survey was not very high. Another factor was that some of the questionnaires were returned incomplete. So as not to bias any adjustment, these were disregarded and only the completed questionnaires were considered for the analysis.
- It is worthwhile considering whether implementation of TQM has any impact on business performance and competitive advantage of these companies.

Table-3: Results of T-Test with Significant Difference at 5% Significance Level

Factor	Mean		Standard Deviation		P-Value	Significance Correlation
	Mfg.	Service	Mfg.	Service		
1	17.714	17.571	2.054	2.173	0.711	0.545
2	17.429	16.786	2.980	3.827	0.631	0.667
3	17.571	17.142	3.502	2.656	0.688	0.285
4	18.357	17.285	2.373	2.463	0.247	0.083
5	17.357	17.357	3.128	2.499	0.931	0.082
6	19.071	17.286	2.868	1.939	0.064	0.201
7	17.071	15.500	2.368	2.245	0.064	0.902

Source: Calculated Value.

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CUSTOMER RELATIONSHIP MANAGEMENT STRATEGIES IN BANKING INDUSTRY

G. Venugopalan⁷

ABSTRACT

Today's bank is to serve and maintain smooth relation with customers. With onset of liberalization in general, banking sector in particular, it has been realized that it is better to create and retain the existing customers to sustain in the competitive environment. This paper explores the strategies adopted by the banking sector to maintain customer relationship management practices to retain the customers. One of the biggest challenges being faced by banking industry today is how to gain an advantage over competitors in satisfying customer needs. The banking industry in India has undergone a sea change after the liberalization. Banking sector today faces many challenges like global competition for deposits and loans and underwriting fees, increasing customer demands, shrinking profit margins and changing technology.

KEYWORDS

Competitive, Environment, Customer Relationship Management, Strategy etc.

INTRODUCTION

The biggest challenge for a business is to serve and maintain smooth relations with customers. The customers' choice and awareness have been tremendously increasing during this decade due to liberalization of the economy, the introduction of information technology (IT) media revolution and stiff competition by banks. The biggest challenge for today's bank is to serve and maintain smooth relation with customers. With onset of liberalization in general, banking sector in particular, it has been realized that it is better to create and retain the existing customers to sustain in the competitive environment. This paper explores the strategies adopted by the banking sector to maintain customer relationship management practices to retain the customers.

One of the biggest challenges being faced by banking industry today is how to gain an advantage over competitors in satisfying customer needs. The banking industry in India has undergone a sea change after the liberalization. Banking sector today faces many challenges like global competition for deposits and loans and underwriting fees, increasing customer demands, shrinking profit margins and changing technology. In order to meet these obstacles, strong customer relation is required. Such a relationship is possible only when banks provide personalized service to every customer, every time and everywhere.

REVIEW OF LITERATURE

Customer relationship management is a major business buzzword of 2000s. Customer relationship management means to gain trust from customer by meeting the needs of each customer in a more personalized way. Banks have realized that the customer satisfaction and maintaining the relationship is essential for survival of banks. One industry best suited for CRM implementation in the Indian banking and financial service sector, which has highest growth potential.

Berry (1983) defines CRM as "Attracting, Maintaining and Enhancing Customer Relationships in Multi Service Organizations". Reichheld and Sasser (1990) stated that role of customer essential for corporate performance so that when relationship with customers endures profits up.

Sheth and paratiyar (1990) showed that the cost of retaining current client is frequently much lower than cost of acquiring new ones. Research suggests that customer satisfaction, fundamental concept of relationship marketing is important in achieving retaining competitive advantage. The best way to retain the customer is satisfying the customer requirement. If a bank develops and sustain a relationship with its customer and its competitor cannot easily replace them, and therefore relationship provides for a sustained competitive advantage.

IMPORTANCE OF CRM

- CRM helps the banks to identify customer needs and re-focus its strategy to serve him better.
- Identify customer needs.
- Helps in rediscovering the customer and understanding him.
- Identify untapped the business potential.
- Identify fields requiring new technology and development.

DIFFERENT VIEWS OF CRM

- It is a tool for retention of customers with help of marketing strategies so that bondage between banker and customer will be maintained.
- 20 percent of the loyal customer account for 80 percent of sales.

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- The cost of creating new customers is several times more than existing customers.
- A satisfied customer in 10 years could bring 100 customers to the company.
- Dissatisfied customer not only switch over to other companies, product (or) service, but also deviate other potential customers, which may restrict future prospectus.

FINDINGS

- To retain and attract the customers most of the banks have redesigned the account their opening form with several information, which will serve the twin purpose of establishing relationship with customers e.g., anniversary dates, children's birthday and cross selling of bank in various products.
- Hospitality such as offering coffee and cool drinks to customers is followed in some banks.
- Many Indian banks have introduced the concept of anywhere banking. An account holder can transact business anywhere in the country in select branches.
- The loan seeker need not approach banker because presently the banks are offering loans at the doorstep of the prospective customer.
- Some of the banks are operating mobile ATM for their customers during a specified time. ICICI is one such bank which tried this facility in Mumbai, Chandigarh and Kerala during a specified time.
- In addition to these, bank customers can avail the following services like prepaid mobile charge, making donations to various temples, mutual fund transactions, Bill payments, payment of insurance premium and soon.
- Of late, banks like State bank of India, bank of Baroda and ICICI bank have increased banking hours from 8 am to 8 pm in select branches.
- To meet the competition, almost all the banks are continuously launching new products in the area of retail loan, corporate loan, agriculture loan, small and medium enterprise loan and merchant credit. Certain banks have introduced innovative schemes like home loan, car loan, loan against rental, loan against mortgage, Farmers credit card and artisan's credit card.
- To attract and retain the customer in banks, some of the banks have gone to the extent of outsourcing certain services like opening of accounts, Issue of cheque books, statement of accounts, Customer Query management, Administration of payroll and TDS, marketing of banking products and maintenance of computers and other electronic gadgets. A study revealed that 20 percent of customers contribute 80 percent of bank's profit. A survey in a nationalized bank has revealed that 67 percent of customers maintain less than 1000 as average balance and 15 percent of the customers maintain balance of Rs. 1,000 to 10,000 and only 8 percent of the customer maintain balance over Rs. 10,000 in their accounts. The customers representing the last category are profit customers while the customers representing the first category represent loss customers. The objective of CRM is to convert loss customer into profit customers.

CONCLUSIONS

One of the difficult challenges faced by banking sector today is to maintain good relationship with the customer and retention of customer. To maintain and retain the customer, banks must focus on technological advancement, effective grievance handling system and customer friendly services. Understanding the customer requirement and incorporating the ongoing changes that take place in banking sector is must for banking sector to provide genuine customer relationship management.

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USEFULNESS OF E-BANKING: A LENS OF CUSTOMER WITH SPECIAL REFERENCE TO UNION BANK OF INDIA, BIJAPUR

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ABSTRACT

Due to Globalization, Privatization and Liberalization the Indian Economy is a free economy. Moreover, Bank Industry underwent many changes in their operations. The growing competition and increasing customer expectation have to lead increase in awareness among the bank on usage of technology in banking operation. E-banking is one of the restructuring strategies adopted by Indian Banking Industry. Indian Banking System Traditional system changes into new technology. Indian Banking System needs to enhance their operational efficiency, management excellence and risk management to operate in more dynamic, complex and rapidly changing environment.

New challenges in managing talent have to be addressed, customer demand and satisfaction met in an era of growing competition. The bank constantly upgrading technology, software, website, privacy options to enable to customer actively use of Internet Banking. Bank must encourage their customer to use new technology i.e., E-banking facility. E-banking has made significant impact on banking industry; it has increased the on-line competition between the banks.

The bank need to develop the creative solution of how to use new technology and provide customer on-line service quality among the competitors. This study will help the bankers to understand the utilization of facility and evolve marketing and motivational strategies for decision making and further necessary action i.e., in regards with consumer awareness of e-banking, advertising of e-banking etc. for implementation of e-banking as an innovative management concept. In Bijapur City there are two branches of Union bank of India, both banks are working with internet banking.

KEYWORDS

Globalization, Privatization, Liberalization, Technology, Management Excellence, e-Banking etc.

INTRODUCTION

The Indian Economy is a free economy, due to Globalization, Privatization and Liberalization. Leading to drastic changes in operations of banking sector. The rapid advancement in electronic distribution channels has induced tremendous changes in the financial industry in recent years, with an increasing rate of change in technology, competition among players and consumer needs. The growing competition and increasing customer expectation have to lead increase in awareness among the bank on usage of technology in banking operation. The eventual movement towards online banking was done in the last 10 years due to the need of customers to perform transactions in a safe and quick manner. Online banking or Internet banking as it's often referred to allow customers to conduct financial transactions on a secure website operated by the primary branch of a bank. Easy and quick transactions are very important traits to those professionals in the freelancing world.

Online banking presents both an opportunity and a challenge in terms of being able to provide the convenience, efficiency, and effectiveness of online banking to its customers. The main driver behind online banking is convenience. It is available around the clock, is extremely time-saving, and is accessible from anywhere around the world.

Internet Banking (IB) involves consumers using the internet to access their bank and account, to undertake banking transactions. IB makes it possible for banks to offer consumers a variety of services 24 hours a day. IB offers various operations. Banking institutions are using their websites not only to provide classical operations such as fund transfer or account details, but also to provide stock trading in world markets, bill payments, check book request, credit card request and investment advice. Banks also use the websites as an information delivery tool, a channel for conducting transactions and a tool to improve customer relationship. IB has become increasingly prevalent, practiced by many financial institutions to reduce costs associated with having personnel serve customers physically, shorten processing periods of waiting line, increase speed, improve the flexibility of business transactions and provide better service overall.

This paper first reviews the existing literature on electronic banking and then examines customers' perceptions towards electronic banking in Union Bank of India, Bijapur Branch. This paper undertakes research survey on the perception of the banking customers towards electronic banking in co-relation with different factors (Student, Below Graduate, Graduate, Post Graduate, Professionals, Government Employees, Private sector employee, Business person and Depositor. This analysis of data helps to identify the views of different segments of customer and to suggest effective strategic planning to Union Bank of India.

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E-BANKING IN INDIA

In the recent years there has been explosion of Internet based electronic banking applications. One of the scholars states that “the emergence of new forms of technology has created highly competitive market conditions for bank providers. However, the changed market conditions demand for banks to better understanding of consumers' needs”. The concept of electronic banking has been defined in many ways according to Karjaluoto (2002) electronic banking is a construct that consists of several distribution channels. Daniel (1999) defines electronic banking as the delivery of banks' information and services by banks to customers via different delivery platforms that can be used with different terminal devices such as a personal computer and a mobile phone with browser or desktop software, telephone or digital television.

Electronic banking also commonly known as internet banking or e-banking. Internet Banking, defined as “the delivery of banking services through the open-access computer network (the internet) directly to customers' home or private address”. E-banking is not unlike traditional payment, inquiry, and information processing system, differing only in that it utilizes a different delivery channel. Any decision to adopt e-banking is normally influenced by a number of factors. The success in Internet banking will be achieved with tailored financial products and services that fulfill customer' wants, preferences and quality expectations. Mattila (2001) concedes that customer satisfaction is a key to success in Internet banking and banks will use different media to customize products and services to fit customers' specific needs in the future.

Union Bank of India

Union Bank of India (UBI) has traveled the long road of successful banking 92 years. 1919 UBI was registered on 11 November 1919 as a limited company in Mumbai. It was inaugurated by Mahatma Gandhi. It was one of the few Financial Commercial banks in India. Until 1947, UBI had only 4 branches - 3 in Mumbai and 1 in Saurashtra, all concentrated in key trade centers. Catering to all the sectors of the society, be it agriculture, industry, trade and commerce, services or infrastructure, the bank has also played a major role in rendering services to the financial needs of every section. Apart from this, the bank also extended financial support to educational, housing and trade sector.

With the age of global banking, Union Bank of India also changed its style, boasting of urbanized and computerized core banking systems. A front runner among public sector banks in modern-day banking, it has all the facilities that a modern bank should have - internet banking and centrally computerized branches. UBI was one of the pioneer public sector banks, which launched Core Banking Solution in 2002. As of September 2005, more than 670 branches/extension counters of Bank are networked under Core Banking Solution. The Bank has launched multiple Electronic Delivery Channels and has installed nearly 423 networked ATMs.

Union Bank of India undertook the task of establishment of village knowledge centers and self-employment training centers. It was in 1975, that the Union Bank of India was nationalized. It was, then, that it merged with the Belgaum Bank, a private sector bank. Another merger was on cards in 1985, this time with the Miraj State Bank. Union Bank is a Public Sector Unit with 55.43% Share Capital held by the Government of India. The Bank came out with its Initial Public Offer (IPO) in August 20, 2002 and Follow on Public Offer in February 2006. Presently 44.57 % of Share Capital is presently held by institutions, individuals and others. In Bijapur City there are two branches of Union bank of India, both banks are working with internet banking.

PURPOSE OF RESEARCH

With the advent of the globalization, privatization and liberalization, the banking system has to undergo restructuring of their operational system because of huge competition in banking sector.

E-banking is one of the undaunted strategies of Union Bank of India which has switched over from the traditional pattern of the banking operations by introducing new technology. Moreover, UBI are constantly upgrading their websites, software's, safety measures, privacy options, number of schemes for the customer actively used internet banking. The bank also issues the user manual to make customer comfort in using for e-banking. Banks are also making a campaign, advertisement for encouraging customers use the e-banking.

There is a need of understanding customer's acceptance or perceptions of e-banking and the reason behind utilization of internet banking facilities. This study will help the bankers to understand the reason or purpose for the utilization of facilities. To evoke suitable marketing strategy to popularized the internet banking and bridge the gap between the expectations of the customers and the service provider accordingly.

REVIEW OF LITERATURE

Bankers' and consumers' perceptions of the benefits of electronic banking have attracted the attention of many researchers, especially in recent years. Berry (1984) stressed that employees must be viewed by the management as 'internal customers'. Maintenance of high level of employee satisfaction and retention is important if banks are to achieve high levels of customer satisfaction and retention.

The concept of electronic banking has been defined in many ways; according to Karjaluoto (2002) “electronic banking is a construct that consists of several distribution channels”. Daniel (1999) defines “electronic banking as the delivery of banks' information and services by banks to customers via different delivery platforms that can be used with different terminal devices

such as a personal computer and a mobile phone with browser or desktop software, telephone or digital television". Electronic banking is also commonly known as internet banking or e-banking. Internet Banking, defined as "the delivery of banking services through the open-access computer network (the internet) directly to customers' home or private address". In many ways, e-banking is not unlike traditional payment, inquiry, and information processing system, differing only in that it utilizes a different delivery channel. Any decision to adopt e-banking is normally influenced by a number of factors. Liao et al. (2008) stress that the success in Internet banking will be achieved with tailored financial products and services that fulfill customer's wants, preferences and quality expectations. Mattila (2001) concedes that customer satisfaction is a key to success in Internet banking and banks will use different media to customize products and services to fit customers' specific needs in the future. Liao et al. (2003) suggest that Consumer's perceptions of transaction security, transaction accuracy, user friendliness, and network speed are the critical factors for success in Internet banking.

Perception of Customers about Internet Banking

Electronic banking is offering its customers with a wide range of services: Customers are able to interact with their banking accounts as well as make financial transactions from virtually anywhere without time restrictions. Adult customers are changing their existing pattern of use of traditional banking and switch over advanced self-service technology (Curran and Meuter, 2007). Liao and Cheung (2002) stated that willingness to use Internet banking depends on the expectations of accuracy, security, network speed, user-friendliness, user involvement, and convenience. Privacy is the single most important characteristic because of its effect on customers' perceptions. To access the private information shared between the bank and the customer (Sayar and Wolfe, 2007). It is argued that in the e-bank context, the security issue is crucial once, it involves directly the user's actives. According the S Murty wrote a paper concerning customers' preferences in E-banking, results were based on a survey of 300 respondents. Their conclusion indicates that age and educational qualifications of electronic and conventional banking have no significant impact on E-banking adoption.

OBJECTIVES OF PAPER

- To find the customers expectation for their banking systems (UBI) when using e-banking.
- To examine costumer perceptions of the using of electronic banking.
- To understand the need of the customer in utilization of Internet Banking facility in UBI.
- To suggest the measures to Bank to evolve a strategic tool for expanding customer base through popularizing the internet banking.
- To prepare the manual for the customer about e-banking on the basis of the survey study.

RESEARCH METHODOLOGY

Consumers' perceptions of the benefits of electronic banking have attracted the attention of many researchers, especially in recent years. Customers must be viewed about 'internet banking' service of UBI. UBI Maintenance of high level of customer satisfaction is important.

A sample of 120 internet users was selected on the basis of random sampling technique to elicit information on the research topic. But the researchers received the response from only **95** respondents. In the present study, the survey was conducted in the period of 2011.

A questionnaire schedule was administered by the researchers consisting of 12 questions. Questionnaires were administered among 120 different people to 3 branches of UBI implementing online banking, the researcher received response from 95 respondents. The questions were focused on the extent to which different people use the Internet Banking and purchase items using online methods.

The survey instrument used in this study was a structured questionnaire for the empirical study. The questionnaire was made up using dimension which measures the acceptance of online banking among UBI customers.

LIMITATIONS AND SCOPE OF RESEARCH

This research serves as an initial step in exploring customers' views and expectations on online banking. However, it is limited by the following factors:

- The sample was distributed randomly overt people from the UBI customers, including less educated.
- Due to paucity of time the sample size could be comprised of only 95 respondents which may not be a good representative for the very large financial institution like UBI.
- This research focused to a high degree on acceptance of online banking among UBI customers and opinion facilities of internet banking only though there may be other factors underlying the acceptance of online banking.

RESULTS OF SURVEY**Table-1: Awareness of Internet Banking Services**

Customers	Number of Respondents	Percentage
Fully aware	45	47
Semi awareness	32	34
Unaware	18	19
Total	95	100%

Sources: Data Analysis.

It is observed that 47% are fully aware of internet banking. 34% of customers have an idea about the facility available in UBI & only 19 % of customers did not have awareness. So that majority of customers are well aware of the facility.

Table-2: Customer Education

	Number of Respondents	Percentage
Non-Graduation	11	12
Graduation	43	45
Master Degree	25	26
Others	16	17
Total	95	100

Sources: Data Analysis.

The Survey has revealed that most of the users of e-banking that is 71% are Graduate & Master Degrees and non-graduate users are only 12 %. Thus most of the qualified customers have opted for e banking facility.

Table-3: Different Categories of Customers

Types of Customers	Number of Respondents	Percentage
Student	06	6
Govt. Employee	11	12
Private Sector Employee	24	25
Professional	29	31
Business person	21	22
Others	04	04
Total	95	100

Sources: Data Analysis.

The study has revealed that 78% of the respondents i.e., private sector employee, professional & business persons are highly using online banking services and rest of the customers are rarely using online banking.

Table-4: Frequency of Access to Internet Banking

Number of Times	Number of Respondents	Percentage
Occasionally	35	37
Fortnightly	15	16
Weekly	20	21
Daily	25	26
Total	95	100

Sources: Data Analysis.

When enquired about the frequency to access to internet banking it is observed that only 26% are using the facility daily and the most 37% are using it occasionally and 16% are using it fortnightly. Thus the frequency of usage is highly negligible.

Table-5: Usage of Services Provided Online

Purpose	Number of Respondents	Percentage of Respondents
Money Transfer	28	29
Balance Checking	40	42
Rail Ticket / Road Ticket	44	46
Mobile Banking	38	40

Sources: Data Analysis.

It was noticed that just half of the respondents used internet banking for making use rail ticket/road Ticket; another 42% of them used online service for making balance enquiries or viewing for statements, 40% have used for mobile banking and only 29% made a better use of internet banking such as transfer of funds.

Table-6: Purpose for Using Internet Banking

Advantages	Number of Respondents	Percentage of Respondents
All time availability	23	24
Ease to use	11	12
Convenient	26	27
Security	15	16
Inexpensive	13	14
Time saving	18	19

Sources: Data Analysis.

The above table depicts that a majority of people in our survey used internet banking for the reasons of convenience (27%), all time availability (24%), timesaving (19%), security (16%), inexpensive (14%) and ease to use (12%).

Table-7: Satisfaction w.r.t Online Service Provided

Factors	Number of Respondents	Percentage
Highly Satisfied	62	65
Satisfied	15	16
Not satisfied	18	19
Total	95	100

Sources: Data Analysis.

The above table infers that majority of the respondents are highly satisfied because of good online services provided by the bank. Only 19% of the respondents are not satisfied due to server or other technical problems of the online.

Table-8: Choosing Internet Banking At UBI

	Number of Respondents	Percentage
Existing Bank Account	20	21
Brand of the Bank	30	32
Nationalized Bank	15	16
Excellent Service	50	53
Guidance	45	47
Other	05	5

Sources: Data Analysis.

The researcher tried to get the multiple responses from the respondents for choosing internet banking at UBI only. It is interesting to note that all the respondents of internet banking have viewed that it is because of the excellent service and the guidance from bank officials.

Only 21% of users expressed that they have the existing account and converted the existing account into internet bank usage.

FINDINGS

Internet Banking is one of the new concepts of adoption of internet banks in Indian banking system. This survey shows that UBI is generally caring for new customers, new technology & new innovations. The UBI is treating new advancement as an advantage rather than a risk. UBI is trying to attract new customer for online banking.

It provides service through the UBI websites www.ubi.com. The bank has systematically developed the web page and ease to use and quick to respond to the customers.

Bijapur is one of the developing districts in the Karnataka state there is limited industries and business etc., that's why online banking users are limited. This survey shows that overall business man, professional and private sectors are only the most user of the online banking. Government sectors and students are less users of the online banking. Most of the customers in Bijapur district are using online banking for the purpose of rail/road tickets.

The researcher had a general discussion with the bank manager and other official's relating the major issues of internet banking.

CONCLUSIONS AND SUGGESTIONS

Thanks to the rapid developments in information technologies, the internet, which is intensively used in all fields, is also used extensively in the field of banking. Customers are able to access their accounts through internet banking wherever they are and make banking transactions. Enabling customers to make their transactions on a 24-hour-basis and keep their portfolios under control at all times, internet banking also reduces costs of transactions of banks and lightens their workload.

In a country like India, there is need for providing better and customized services to the customers. Banks must be concerned the attitudes of customers with regard to acceptance of online banking. It shows that customers are reluctant to adopt new technologies or methods that might contain little risk. It's also important to note that some customers are interested in online banking; UBI must attract student and government employees for better utilization of the on line banking service.

From the survey it can be inferred that the customers have a skeptical view regarding the security and privacy provided by the bank for online transaction therefore the banks have to improve their image of their service regarding this aspect and create trust among them.

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SALARY AND SATISFACTION: A STUDY IN AUTOMOBILE INDUSTRIES

Shweta Awasthi¹²

ABSTRACT

The Automobile sector plays a vital role in underpinning the economic development of a country. This study attempts to determine the performance and job satisfaction of employees in different automobile engineering companies. It focuses on the importance of salary and rewards to motivate the employees to perform well in the organization. Reward systems are discussed with various types of rewards being considered and also the non-monetary rewards. Rewards must be aligned with the needs of people and the things that they value. If these rewards are aligned with employees needs, this could lead to increase in employee motivation, which will in turn lead to job satisfaction, and therefore lead to companies becoming more competitive.

This research was undertaken to determine salary and rewards that will motivate employees to improve performance. A survey, with the aid of structured questionnaire, was used to gain information from 60 employees. The research was conducted in four automobile engineering companies.

The majority of the respondents indicated that monetary rewards including salary and wages help in job satisfaction, non-monetary rewards help in motivating the employees which further leads to improvement in job performance, non-monetary rewards should preferably be of a physical nature such as certificates, caps and t-shirts, good compensation policy leads to overall job satisfaction, pay satisfaction is one of the factors for the retention of the employees.

KEYWORDS

Automobile, Salary Job Satisfaction, Rewards, Motivation etc.

INTRODUCTION

Satisfaction surveys can be an excellent tool to improve organizational effectiveness by surveying customers and employees satisfaction through obtaining data about attitudes, opinions, views, and perceptions. The development of any organisation is mainly depending on the satisfaction level of the employees so that they can perform well in the organisation. Job satisfaction has been a matter of concern and attention in any field of business nowadays. Organizations realize that employee job satisfaction is the essential element to increase customer satisfaction and keep their business running, as competition is getting more intense. Employee dissatisfaction will usually spread their problem to their workmates and word of mouth can do a lot of harm to an organization. The dissatisfied employee complaints can be a useful source of information for the organization to develop their business strategies and formulate their tactical decisions.

Job satisfaction is a key instrument to gauge the organizational health as service quality largely depends upon the human resources. Job Satisfaction is the buzz word in today's corporate era. Over the period of time employees have witnessed several eras in modern business history and the concept of treating humans as assets of the organization has flourished and has done wonders around the world in terms of growth of companies. The concept of job satisfaction has emerged and now there are several factors contributing to it which **are monetary and non-monetary**. Job satisfaction is the favorableness or unfavorableness with which employees view their work and it is affected by both the internal and external environment of the organization. Job design affect the job satisfaction, as jobs that are rich in behavioral elements such as variety autonomy, task unimportance and feedback contribute to employee's satisfaction. Similarly the employee's acceptance by the work group is important to job satisfaction. To sum up each element of the organization environment and system can contribute to or detract from job satisfaction. In general, therefore, job satisfaction refers to an individual's positive emotional reactions to a particular job. It is an affective reaction to a job that results from the person's comparison of actual outcomes with those that are desired, anticipated, or deserved (Opkara, 2002). Job satisfaction has significance towards human health both physical and mental and is positively or negatively correlated. Employees spend a major part of their lives at the workplace hence the factors related to job satisfaction and employee behavior and their implication are important to measure.

Job satisfaction is an attitude of an employee over a period of his / her job so the factors of job satisfaction and dissatisfaction changes over the period of time. However, in today's business climate of continuous changes and uncertainty, the importance of job satisfaction to organizational performance and individual can be "pay". Job satisfaction is an attitude and measuring attitudes at workplace is not an easy task. The automobile sector plays a vital role in underpinning the economic development of a country. This study attempts to evaluate satisfaction of employees in different automotive companies. It focuses on the relative importance of satisfaction factors and their impacts on the overall job satisfaction of employees. The result shows that salary, non monetary benefits, fringe supervision, and overall compensation policy are the most important factors contributing to job satisfaction. The overall job satisfaction of the employees in manufacturing sector is at the positive level. The nature of business operation, the work culture and the level of job satisfaction have undergone sea change for the automotive companies. As a business proposition initiated huge investment whereas majority of their stocks is going down bringing a high level of apprehension related to job security among its employees.

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This research paper highlights some of these problems and presents a picture of level of job satisfaction among employees of automobile companies. It also identifies unique issues of job satisfaction in the companies. Automobile Companies are selected for the research because they are currently undergoing continued expansion. In order to gain competitive advantage and adapt to the dramatic changing environment, it is important for them to achieve management efficiency by increasing employee satisfaction in the organisation. Hence this research was mainly undertaken to investigate on the significance of factors such as working conditions, pay and promotion, job security, fairness, rewards and raises and supervisors in affecting the job satisfaction and job performance. This paper presents a comprehensive diagnosis of job satisfaction indices of automobile business, the factors causing the dissatisfaction & suggestions to improve them.

Also, in this study focus will only be on one of these causes of unsatisfactory performance, namely, lack of motivation. There are various theories and approaches to employee motivation, but there is one important aspect about motivation, and that is to determine what the employee wants and offer it as a reward for good performance. One of management's most difficult tasks is to determine employee needs and to create an environment in which those needs are satisfied. Management can make use of various common techniques to motivate the unmotivated:

- Create meaningful goals and objectives;
- Invite employee participation;
- Let employees know where they stand;
- Reward good work;
- Treat employees fairly;
- Ensure that work is as interesting as possible;
- Learn cultural differences, and
- Enable employees to grow and develop.

One of the techniques to motivate and satisfy employees and improve job performance is to reward good work. It has also been one of the most challenging techniques to identify the most suitable reward and to implement it in such a way that the business benefits. It is therefore important to look at reward systems, view the alternatives available and understand them. The focus is on four important components:

- Types of rewards;
- Reward norms;
- Distribution criteria, and
- Desired outcomes.

REVIEW OF LITERATURE

Job satisfaction involves several different spheres such as satisfaction with pay, promotion opportunities, fringe benefits, job security and the importance/challenge of the job was found in the survey "Relative Pay and Job satisfaction" (Nguyen, Taylor, & Bradley, 2003). Job satisfaction can lead to cost reduction by reducing absences, task errors, and turnover. Since work is an important aspect of people's lives and most people spend a large part of their working lives at work, understanding the factors involved in job satisfaction is crucial to improving employees' performance and productivity. Job satisfaction has often been linked to organizational commitment, turnover intentions, and absenteeism. These variables are costly to an organization, as they could lead to low morale, poor performance, lower productivity, and higher costs of hiring, retention, and training (Opkara, 2002).

One of the main findings is that women are more satisfied with their jobs than men, even after taking into account many observed characteristics and sample selectivity (Clark 1996, 1997, Groot and Brink 1998, Sanz de Galdeano 2001, Blanchflower and Oswald 2000). Clark (1996, 1997) and Sanz de Galdeano (2001) explain the existence of a positive relationship between being a female and job satisfaction as reflecting women's lower expectations from their job, which arise from the poor position in the labour market that women have traditionally held (Clark 1997).

The performance of an individual affects not only his level of satisfaction but of his peers also. A successful employee becomes an asset to the organization and also his peers. The level of satisfaction is in direct relation with the job he does and the rewards he gets. The paper- "Employee satisfaction and Organizational performance: A summary of Key finding from applied Psychology" (Larry E.Cole and Michael S.Cole, 2008), links the psychological factors that enhance satisfaction with a job. The parameters are studied through an extensive research on the topic which brought out non- monetary incentives to cause great psychological impact. It conducted research at the business unit level is believed to be more important than individual level employee. They concluded that employee satisfaction is related to meaningful business outcomes and that these relationships generalize across companies. The potential of longitudinal research is high in the same area. The right attitude brings right results. This saying goes right when an organization with thousands of employees from different cultural and other diversities sit under one roof. The role of the employer becomes not only as a compensator but as a facilitator too. The employees look forward for more than just money again. Humans are social animals and thus need right amount of motivation, acknowledgement, appreciation and more.

The article-"Employee Attitudes and Job satisfaction" (Lise M.Saari and Timonthy A Judge, 2004) identifies three major gaps between Hr practice and the scientific research in the area of employee attitudes in general and the most focal employee attitude in particular- job satisfaction: 1) the causes of employee attitudes, 2) the results of positive or negative job satisfaction and 3) how to measure and influence employee attitudes. A Qualitative research in nature it was brought across the comparisons and numerical

accuracy needed in conducting the surveys. It helps us to understand the importance of internal and external factors that influence employee attitudes. Extensive research has been conducted on the factors that impact motivation and satisfaction and therefore job performance. Survey of Canadian Strategic Rewards and Pay Practices (Wyatt's 2004) found that employers are seeking to adopt reward strategies that provide a competitive advantage by attracting top talent and engaging employees in a way that drives business results.

According to "People, Performance and Pay" study, by the American Productivity Centre, it generally takes 5% to 8% of an employee's salary to change behavior if the reward is cash, but only 4% of the employee's salary if the reward is non-cash. Thus the fewer dollars are money well spent. Motivation is more likely to occur, when a reward is personalized and heartfelt (Stephenson, 1995). Through its 2002 "People at Work Survey", Mercer concluded that 48% respondents believed that they were paid fairly, 28% were motivated by their organizations incentive compensation plan, only 29% said that when they do a good job, their performance get rewarded. In the same study they found that among employees who say their performance is rewarded when they do a good job, 90% are satisfied with their jobs; 88% are satisfied with their organizations and 12% were seriously considering leaving (Compensation & Benefits Report, 2003).

Studies have tested the hypothesis that income is an important determinant of job satisfaction. (Nguyen, Taylor, & Bradley, 2003). Factors such as pay, the work itself, supervision, relationships with co-workers and opportunities for promotions have been found to contribute to job satisfaction. (Opkara, 2002). There is a significant difference in the job satisfaction levels of employees based on their income. Employees earning the lowest income report significantly lower levels of job satisfaction relative to the other income groups. Highly paid employees may still be dissatisfied if they do not like the nature of their job and feel they cannot enter a more satisfying job were the findings of "Job Satisfaction Amongst Employees At A Public Health Institution In The Western Cape" (Luddy, 2005).

Many companies and organisations feel that employee compensation is the dominating factor in employee satisfaction. Fortunately, there is a more cost effective way to improve productivity that will significantly improve the "bottom line." William M. Mercer, Inc. found in surveying 206 medium-sized to large companies in 1998 that in organisations with higher employee turnover, compensation was the most common reason given for dissatisfaction. However in companies with very low turnover, 40% of the respondents perceived emotional factors (work satisfaction, good relationships with managers and other employees) as completely motivating their retention as compared to 21% attributing financial factors (satisfaction with compensation and benefits) as completely motivating their retention.

It is important to note that compensation and benefits satisfy the two lowest needs of Maslow's hierarchy of needs, while the emotional factors satisfy the three upper needs of the hierarchy. It is therefore important that management creates an environment in workplace that will make employees feel better about themselves, will raise their self esteem, and will makes company a place where they would like to spend most of their time (Increasing employee satisfaction, 1999).

OBJECTIVES OF STUDY

The objectives of this study are:

- To identify the influence of pay on employee job satisfaction.
- To what extent monetary and non monetary benefits are sufficient to motivate the employees to improve performance and stay longer in organization.
- To analyze the relationship between employee pay satisfaction and their retention in the organization.
- To determine the various types of non-monetary rewards and how they can address the employees need.

RESEARCH METHODOLOGY

The research design of the study was quantitative descriptive oriented. Present study was restricted to the white collar, permanent employees working in four Automobile industries (Minda Corporation Limited, Honda Sael Cars India Limited, Hyundai Motors India Limited, and Tata Motors Limited). Sampling size of the study was 60.

The sampling procedure opted for study was Non-Probabilistic Snowball Sampling. Snowball sampling uses recommendations to find people with specific range of skills that has been determined as being useful. There is a well structured questionnaire involved in present research. In an attempt to obtain the most reliable data, the researcher chose to compile a questionnaire.

DATA ANALYSIS

Rewards

This section was included in the questionnaire to determine whether rewards have a positive impact on job satisfaction of employees and performance. This section is further divided into monetary and non-monetary rewards to establish whether both play a role in motivating employees to improve performance.

Monetary Reward and Job Satisfaction**Table-1: The Results of Monetary Reward and Job Satisfaction**

The Following Is a Valuable Monetary Reward for Job Satisfaction	5	4	3	2	1	Mean
	%	%	%	%	%	
1. Salary and wages	15	42	26	15	2	3.38
2. Annual company performance bonus	17	22	37	22	3	3.2
3. Monthly target based incentive schemes	4	28	33	18	17	2.83

Sources: Primary Analysis.

The results of all three statements in Table1 show that the majority of respondents feels that money plays an important role as a reward that improves satisfaction level. The overall view, although still positive, indicates a lesser degree of positive response to the fact that monthly target based incentive schemes are regarded as having impact on job satisfaction. The results of further monetary reward statements are illustrated in Table 2.

Monetary Reward Statements**Table-2: The Results of Monetary Reward Statements**

Do You Agree With the Following Statements Regarding Monetary Rewards?	5	4	3	2	1	Mean
	%	%	%	%	%	
1. Monetary rewards are the only rewards that motivate	8	33	22	25	12	3.01
2. Monetary rewards are short-term motivators	10	40	17	23	10	3.16

Sources: Primary Analysis.

In Table2 it can be seen that the statement, monetary rewards are the only rewards that motivate employees, the respondents agree with the statement to some extent and the results also stressed that monetary rewards can only be regarded as a short term motivator. Table3 illustrates the results of how respondents rated non-monetary rewards that would increase good performance.

Non-Monetary Reward and Good Performance**Table-3: Results of Non-Monetary Reward and Good Performance**

Are the Following Non-Monetary Rewards Valuable Rewards for Good Performance?	5	4	3	2	1	Mean
	%	%	%	%	%	
1. Informal praise from your superior (thank you).	7	58	20	15	0	3.5
2. Formal praise from your superior (certificate).	18	57	12	10	3	2.7
3. Symbolic gifts (caps, badges, t-shirts).	8	28	32	28	3	3.1
4. Mention in monthly magazine.	17	42	22	17	3	3.51
5. Employee of the month trophy (nominated by management).	15	42	23	15	5	3.4
6. Obtaining canteen vouchers by accumulating points for meeting performance standards.	3	18	52	23	3	2.88
7. Employee of month trophy (nominated by fellow employees).	5	38	45	7	5	3.31
8. Achieving specific point levels to qualify for tickets for sporting or entertainment event.	8	32	40	15	5	3.23
9. Company sponsoring employee of year to visit local holiday resort.	17	43	25	8	7	3.55

Sources: Primary Analysis.

Table3 illustrates that the overall rating of impact of following non-monetary rewards on performance varied between neutral and important:

- Informal praise from your superior;
- Symbolic gifts;
- Mention in monthly magazine;
- Employee of the month trophy(nominated by management);
- Employee of the month trophy (nominated by fellow employees);
- Achieving specific point levels to qualify for tickets for sporting or entertainment event.

The previously mentioned non-monetary rewards can be regarded as important as the overall ratings tend to be above.

Respondents rated the other non-monetary rewards as follows:

- **Formal Praise from your Superior** – more than half of the respondents rated it either as very important, or as important. The overall group's feeling was between neutral and important;
- **Obtaining Canteen Vouchers by Accumulating Points for Meeting Performance Standards** – although most of the group were neutral or below, the overall feeling was that it is important;
- **Company Sponsoring Employee of Year To Visit Local Holiday Resort** – majority of the respondents rated it either as very important, or as important. The whole group's response was only important.

Satisfaction with Pay and Benefits and Pay Equity

Table-4: Results of Satisfaction with Pay Benefits and Pay Equity

Indicate Whether You Agree or Disagree with Following Statements:	5	4	3	2	1	Mean
	%	%	%	%	%	
(a) My wage/salary is set fairly in relation to others in my department or unit.	0	42	23	22	13	2.93
(b) My wage/salary is set fairly in relation to workers in similar jobs on campus	0	48	20	22	10	3.06
(c) My wage/salary is set fairly in relation to workers in similar jobs at other Campuses.	2	33	25	25	15	2.81
(d) My raises are set fairly in relation to workers in similar jobs at other Campuses.	3	38	27	27	5	3.08
(e) The raises I have typically received in the past are fair enough according to my job.	0	40	30	18	12	2.9
(f) The number of benefits I receive are fair and satisfactory.	5	28	30	28	8	2.93

Sources: Primary Analysis.

In Table 4 it can be seen that most of the respondents neither agree nor disagree with the statement that their salary and raises are set fairly in relation to workers in similar jobs in their campus as well as in other campuses. But the last question in the table which talks about fair and satisfactory benefits is rated low by the respondents that means employees are not very satisfied with the number of benefits given to them.

Retention and Job Security

Table-5: Results of Retention and Job Security

Indicate Whether You Agree or Disagree with Following Statements:	5	4	3	2	1	Mean
	%	%	%	%	%	
1. In my organization, employees generally feel secured about the job dimension.	20	37	32	7	5	3.6
2. For me, this is the best possible of all organizations to work for.	2	33	25	35	2	2.9
3. I am currently looking for a job outside my organization.	15	20	32	12	22	2.95

Sources: Primary Analysis.

Table 5 illustrates that the overall rating of the feeling towards security of their job varied between neutral and important. Most of the respondents are looking for jobs outside their organization and do not feel that they are working in the best organization. It can be concluded that employees are ready to switch their companies to others and retention level is low in all the four companies which are taken into consideration.

Compensation Policy and Pay System

Table-6: Results of Compensation Policy and Pay System

Indicate Whether You Agree or Disagree with Following Statements:	5	4	3	2	1	Mean
	%	%	%	%	%	
1. In my organization, employees generally get pay schemes based on incentives;	0	30	37	22	12	2.85
2. In my organization, employees and management believes in pay-for-performance system;	8	53	13	22	3	3.41
3. In my organization, pay system is based on equity and justice;	3	30	40	23	3	3.07
4. In my organization, pay system is based on seniority;	3	50	32	13	2	3.4
5. In my organization, pay system is based on qualifications	2	37	35	20	7	3.06

Sources: Primary Analysis.

In table 6 it can be seen that maximum number of respondents believe that in their organization pay system is mainly based on:

- Performance,
- Seniority,
- Qualification.

Compensation Policy Statement

Table-7: Result of Compensation Policy Statement

Indicate Whether You Agree or Disagree with Following Statements:	5	4	3	2	1	Mean
	%	%	%	%	%	
1. Good compensation policy is necessary for job satisfaction	55	37	5	3	0	4.43

Sources: Primary Analysis.

More than two third of respondents are in agreement that good compensation policy is necessary to improve job satisfaction and that will lead to improvement of performance and they regard them as an important means of improving job satisfaction.

Correlation Analysis

Correlation is a statistical tool which can determine the strength and direction of relationship between two variables. The value of correlation ranges from +1 to -1 and both these values show strong positive and negative relationships. While the value 0 show no relationship.

Table-8: Correlations

		meanRP	meanNRP	meanPS	meanR	meanrp1
meanRP	Pearson Correlation	1	.571**	.079	.196	.148
meanNRP	Pearson Correlation	.571**	1	.008	.048	.045
meanPS	Pearson Correlation	.079	.008	1	.168	.506**
meanR	Pearson Correlation	.196	.048	.168	1	.301*
meanrp1	Pearson Correlation	.148	.045	.506**	.301*	1

Sources: Primary Analysis.

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

* Correlation is significant at the 0.05 level (2-tailed).

The table8 shows the correlation between monetary rewards, pay equity and satisfaction, non-monetary rewards, retention and remuneration policy. The value of correlation coefficient for satisfaction with pay and remuneration policy with retention is 0.168 and 0.301 simultaneously, which shows a weak to moderate but positive relationship of both variables with retention. This relationship is significant at α 0.05. The table also shows that remuneration policy and pay satisfaction (.506 at α 0.01) are significantly associated.

ANOVA Analysis

One-way analysis of variance is used to test the differences between two or more groups. This analysis shows the variations within groups and between the groups by comparing their means, while F statistics shows the difference. If F ratio is large with a probability of less than 0.05, shows the difference between groups is low. In the second instance one way ANOVA is applied as a test to measure the effect of satisfaction with pay the dependent variable among various banks. As there are more than two variables, Anova is used for analyzing the results of these multiple variables.

Hypothesis Development

On the basis of association between independent and dependent variables the following hypothesis is developed.

H₀: Employees of different automotive engineering companies have the same perception towards different variables considered in study (that is towards monetary rewards, non-monetary rewards, satisfaction with pay and raises, retention, remuneration policy).

H₁: There is significant difference between the perceptions of employees of different automotive companies towards different variables.

Table-9: ANOVA

		Sum of Squares	Df	Mean Square	F	Sig.
meanRP	Between Groups	.407	3	.136	.372	.773
	Within Groups	20.432	56	.365		
	Total	20.839	59			
meanNRP	Between Groups	1.437	3	.479	1.640	.190
	Within Groups	16.352	56	.292		
	Total	17.789	59			
meanPS	Between Groups	1.164	3	.388	.544	.654
	Within Groups	39.919	56	.713		
	Total	41.083	59			
meanR	Between Groups	1.437	3	.479	1.631	.192
	Within Groups	16.444	56	.294		
	Total	17.881	59			
meanrp1	Between Groups	1.750	3	.583	2.195	.099
	Within Groups	14.881	56	.266		
	Total	16.631	59			

Sources: Primary Analysis.

Results from Table 9 indicate that the P-Value for this test came out to be more than 5 % so the null hypothesis is accepted. Hence the perceptions employees towards different variables are same. The interpretation shows that the null hypothesis is accepted that there is no significance difference between the means. H0: The employees of different automotive engineering companies have the same perception towards different variables that is towards monetary rewards, non-monetary rewards, satisfaction with pay and raises, retention, remuneration policy.

FINDINGS

Some of the findings from the research work are as follows:

1) The results show that the respondents value monetary rewards such as salary and wages, annual company performance bonuses and monthly target based incentive schemes as important for good performance. Although money is valuable to them, they don't believe that it is the only reward that motivates them and that money is a short-term motivator. In the literature review it was said in a study "People, Performance and Pay", by the American Productivity Centre, it generally takes 5% to 8% of an employee's salary to change behavior if the reward is cash, but only 4% of the employee's salary if the reward is non-cash. Thus the fewer dollars are money well spent. Stephenson, 1995 in the literature study refers that motivation is more likely to occur, when a reward is personalized and heartfelt said.

2) The majority of respondents were of the opinion that non-monetary rewards are necessary to improve job performance. Rewards should be visible. Respondents regard the following as valuable non-monetary rewards for good performance:

- Informal praise from superior (such as thank you);
- Formal praise from superior (in the form of certificate);
- Symbolic gifts (caps, t-shirts);
- Mention in monthly magazine;
- Employee of the month or year trophy;
- Tickets for sporting or entertainment event;
- Visit to local holiday resort.

The last two rewards on the list, namely tickets for sporting or entertainment event and visit to local holiday resort, could also be seen as monetary rewards as the company will have to spend a substantial amount of money indirectly on the employee. They can therefore be used as monetary rewards where applicable.

3) It was found-majority of respondents believe that good compensation policies in the organization will lead to employee satisfaction which means good compensation policy helps employees to be motivated and to perform well in the organization. The literature study had also referred to the factors such as pay, the work itself, supervision, relationships with co-workers and opportunities for promotions have been found to contribute to job satisfaction. (Opkara, 2002).

4) It was also found that there is positive but low correlation between satisfaction with pay and benefits and employee retention. This means that good pay and benefits help in the retention of the employee in the company but it is not the only factor responsible for employee retention. In the literature study, William M. Mercer, Inc. found in surveying 206 medium-sized to large companies in 1998 that in organisations with higher employee turnover, compensation was the most common reason given for dissatisfaction. However in companies with very low turnover, 40% of the respondents perceived emotional factors (work satisfaction, good relationships with managers and other employees) as completely motivating their retention as compared to 21% attributing financial factors (satisfaction with compensation and benefits) as completely motivating their retention.

So, in this study also it can be seen that satisfaction with compensation and benefits is not the only factor for employee retention and low turnover.

5) When the response of four industries were analyzed to find whether each industry have different mean score for the different variables taken in the study, it was found that all the four automobile industries have more or less the same average score towards different variables. This means that the perception of employees of all the four companies do not vary when talking about monetary and non-monetary rewards in relation with performance, satisfaction with pay and benefits, retention or compensation policies. This is because the survey has been done in the similar kind of industries which deal with manufacturing of automobile parts.

6) It could be seen from the results of the analysis that maximum number of respondents believe that in their organization pay system is mainly based on:

- Performance,
- Seniority,
- Qualification.

7) The result showed that the respondents were not very happy with number of benefits they receive and with the pay equity. Some of the respondents feel that their salary is not set fairly in relation to other employees.

RECOMMENDATIONS

Based on the research done, following are few suggestions that can be implemented:

- Remuneration packages should integrate monetary rewards to satisfy the basic needs of employees. These basic needs include clothing, food, shelter and transport. It is imperative that the basic needs are first satisfied with monetary rewards.
- Non-monetary rewards will satisfy the hierarchy of needs over and above physiological needs and should be included in reward systems. A survey could be conducted to establish what employees perceive as valuable non-monetary rewards
- The employee of the year award should reward the employee that consistently performed at an excellent level during the course of the year.
- The compensation policies for the employees can be made transparent so that employees are aware of their targets.
- In order to achieve low attrition rate in the manufacturing based industries the emotional factors like relationship of an employee with managers and colleagues, good working environment etc. should be taken into consideration.
- Employees must be able to understand the financial reward system, how they will benefit from it, and how organisation will help to develop the skills and competencies they need to receive the maximum benefit.

LIMITATIONS

- The research was confined to the Northern region of India, mainly Delhi and UP region.
- The research was only done on the automobile industry and therefore the conclusions and recommendations are only applicable to this industry until further studies prove that they are applicable to other industries.
- The majority of the respondents are very similar in most of the biographical aspects investigated and within the same life cycle (only male respondents) and therefore the recommendations could only be made applicable to employees in the group that was surveyed.
- Due to time constraints the researcher was limited to few companies and the sample was restricted to only 60 people in the company.
- The secondary sources required for the literature study were not always readily available and were sometimes outdated.

CONCLUSIONS

The automotive component industry in India needs to become globally competitive to ensure the long-term viability of the industry. One of the aspects that impact on the competitiveness of these companies is the labor costs and the level of labor productivity, which could be improved by motivating people through satisfying employee needs and by utilizing good salary and monetary and nonmonetary rewards. In this study the result says that good compensation policy has the expected positive effect on job satisfaction. Also, both monetary and non-monetary rewards help in motivating the employees to perform well in the organization. It could be seen that in all the four automobile industries, employees feel that the non monetary rewards are as important as monetary rewards to motivate employees to perform well. The result also showed that employees are not very happy with their salary and the number of benefits when comparing with others.

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EMPIRICAL STUDY PERTAINING TO THE EFFECT OF PRICE ON CUSTOMER SATISFACTION WITH RESPECT TO DOMINOS AND PIZZA HUT

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ABSTRACT

Fast food and beverage industry has shown phenomenal growth because of innovation, quality control and competitive pricing. Fast food restaurants represent one of the largest segments of the food industry. A worldwide study conducted to count the number of fast food restaurants per person revealed that United Kingdom claimed the first position with Australia at second place and the United States at third place. England alone accounted for about 25 percent of the world's fast food. These statistics are bound to change as they are vulnerable to the changing eating habits of the society.

KEYWORDS

Pizza Hut, Price, Satisfaction, Dominos, Fast Food, Restaurants etc.

INTRODUCTION

As the fast food industry is changing the society in terms of eating habits so is the financial status changing the eating habits of the customers? It was found that as the people become richer they have less time for their social life. It is also consistent with the idea that better off families may be "time poor" (Brewis and Jack, 2005). The same fact was highlighted by the study conducted by Gan and Vernon who advocates that, the families with higher incomes are more likely to buy take away food rather than take the less expensive option of preparing food at home (Gan and Vernon, 2003). Moreover, as a huge percentage of people in metros are not having enough time to cook food for themselves regularly it has helped the fast food industry to grow by main folds. Therefore, these customers prefer to eat out at fast food restaurants. This behavior of metro dwellers has lead to employment of large numbers of people in the Fast Food industry. As the employability went up so did the demand of the fast food. Consequently, there was an urgent need for the fast food companies to expand faster and reduce their administrative burden. Hence, they came out with the idea of franchising, in order to best maximize their profits the big fast food giant's created the franchise system. Franchising was introduced by A&W Root Beer in 1921. However, the restaurant concept was first franchised by Howard Johnson's in the mid 1930. The franchise system allows the companies to maintain overall control of the product and give them a guaranteed rate of return. Franchise system also allowed the local owners to create a low wage work force best suited to local conditions. Because of the growing business and the enormous circulation of financial resources in the market the fast food and beverage industry gained a prominent role in the Indian economy as well.

The Indian economy has shown encouraging statistics in the past. Indian economy is growing at 9 percent per annum, the fastest after China. India ranks 12th among the largest global economies and 3rd largest in Asia, Just behind China and Japan. In India the per capita disposable income has increased over last five years. This has led to an increase in per capita consumption expenditure on food. According to a report by ASSOCHAM, the consumer spending on processed food has increased at an average rate of 7.6 percent annually from 2008 to 2010 and this is expected to rise at an average of around 8.6 percent till 2012.

This enormous increase in the industry size has led the Indian current per capita expenditure on food to be 1/6th that of China and 1/16th that of US. If other outside foods like restaurant meals are also included with the fast food consumed outside the house, then on an average an Indian consumer spends around 77 USD (₹4,389), per month on eating outside. Moreover, the size of the consumer base is also increasing by manifolds. It is estimated that the middle class, upper middle class and the rich class is projected to increase at more than 300 percent between 2005 and 2015. During the same period the youth population (age group 15 – 25 years) in India is expected to grow by 11 percent. This will lead to an increasing demand for the food products. The principal factors that drive the demand for fast food restaurants is the increasing disposable incomes among the target groups, increase in the number of working women, urbanization, globalization, the consequent changes in life styles and the brand pull making the Tier 1 and Tier 2 cities a hot spot for the fast food companies in the near future.

As the demand for food is on rise so is the spending of the customers. Food is the biggest consumption category in India with spending amounting to about 21 percent of India's GDP. Along with the strong fundamental growth of the economy which provided a push to consumption, there was an increased market penetration by domestic and international food players which resulted in availability of products and provided the required impetus for consumption. Recent researchers reveal that out of the total Indian consumer spending on food 26 percent is on tertiary value-added processed products. Out of this spending, beverages and oil and oilseeds account for more than a 50 percent share, since these products are mostly consumed in the tertiary processed form. In India there is large potential for tertiary processed food products. The traditional habit of Indian consumer is to buy products in the basic or primary form and then process them at home. This is largely due to the fact that Indian women or the available domestic help have time at home to cook and freshness is considered an important element of the Indian diet. Many Indians consider food an important element in the conquest of spiritual growth. According to Deaton and Paxson's (1998) food is a private good and people do not like to share it often. This is very true in the Indian context, as even now there are many people who will not like to share their food with other people because of reasons pertaining to caste and religion.

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Keeping this food individualism in view, the processed food industry in India is at an early stage with low penetration and high potential. The level of processing is currently low across the product categories. For example, only 2.2 percent of the total production of food and vegetables is processed, as compared to 65 percent in the US and 23 percent in China. The potential lies not only in the processed food sector but also in the food tourism. The tourists play a pivotal role in spreading fast food industry at global level. Many tourists spend a lot of money on their tour trips, this spending and word of mouth advertisement helps fast food industry to distend at global level. Tourist's spending on food can constitute up to one-third of the total tourist expenditure (Hall & Sharples, 2003). Furthermore, eating is a unique form of tourist activity that gratifies all five senses that is vision, tactile, auditory, taste, and olfaction (Kivela & Crofts, 2006). According to Down to Earth magazine (March 2008), Indians would spend close to `4,449 crore a year (approx. €767 million) at fast-food joints. The fast food market would be growing at 40 percent per year. Even if the researcher assumes a modest growth of 30 percent only, the business potential for fast food restaurants in India may be reckoned approximately at `13,580 crore by 2016. Hence it is not surprising to see that India is a hot spot for fast food companies and they are penetrating the Indian food market with the help of franchising. Franchising is a good strategy because it not only provides job opportunity to the local population but also utilises the limited resources in the best possible way. Moreover, as franchising involves mass participation it is more inclined towards the local culture leading to increased number of satisfied customers. This has led to expansion of the franchise market in India.

The franchise market in India is estimated to be worth 3.3 billion USD and is growing at a rate of 30 percent per annum. Yum Brands, which owns the KFC, Taco Bell and Pizza Hut chains, runs about 108 KFC outlets in India. McDonald's Corp's has 211 restaurants in India with over 250,000 customers visiting their franchise outlets every day. Indian fast-food operator Jubilant Food works Ltd. runs the Dominos Pizza chain in the country. Domino's Pizza India has grown into a country wide network of more than 300 franchise stores with a team of over 9,000 people. Subway Systems India Pvt. Ltd, part of the U.S. sandwich chain Subway has also entered into the franchise competition by opening its first franchise restaurant in India in 2001. Now Subway has grown its operations to 183 franchise outlets in 26 cities. Another Pizza chain, Papa John's International Inc. has opened 25 franchise outlets in India. Pizza hut runs more franchise stores as compared to company run stores. This indicates that franchise business is booming. This inflow of western chains does not pose a threat to local players such as Udipis because the Indian market is big enough for both, local and foreign companies to grow. India caps foreign ownership in single brand retail at 51 percent forcing all foreign chains to seek partnerships to do business in Asia's third largest economy.

REVIEW OF LITERATURE

Jooyeon Ha and Soo Cheong Jang (2010) have empirically examined the relationship among perceived service quality, satisfaction and loyalty in the Korean ethnic restaurant segment. The researchers have used hierarchical regression analyses to investigate the direct effects of service and food quality on customer satisfaction and loyalty. The study also highlights the significance of the customer perception of atmosphere on the success of the ethnic restaurants. The study points out that the service and food quality has positive and significant effect on customer satisfaction and loyalty. The study suggests that employee service and food quality are of immense importance for ethnic restaurants. Additionally, this study found that employee service together with ideal restaurant atmosphere effectively increases the satisfaction and loyalty of customers. The study makes important contribution towards understanding the formation of satisfaction and loyalty. Form a practical prospective the quality of physical environment is a critical tool for overall organisation success.

Victor P. Lau, Thamir Wing-chun Lo, Zhenquan Sha and He Yun (2007) in the research on "Service quality in restaurant operations" have proposed and tested a conceptual model of service quality with the help of structural equation modelling. Using data from two large full service restaurants in southern China, the researchers have investigated the relationships of service quality, customer satisfaction, and frequency of patronage. The results of the study supported significant relationship between service quality and customer satisfaction, service quality and repeat patronage. However, the relationship between customer satisfaction and repeat patronage was found insignificant and could not be supported. For the model under study researchers also provided important insights into some of the additional dimensions of service quality that are significant in the field of restaurant operations. The researchers have also necessitated the development of strategies which have the fusion of the elements of service quality, customer satisfaction and repeat patronage in order to elevate the overall sales turnover of the restaurants.

Cuma Akbay, Gulgun Yildiz Tiryaki and Aykut Gul (2007) have investigated the relationship among consumers' attitudes, socio-economic characteristics and fast food consumption frequency. The researchers have used Chi-square test of independence to compare the consumers' fast food consumption frequencies. The researchers have developed an empirical model that signifies on the basis of consumer the consumption frequency of fast food products using the random utility framework. The empirical model was estimated by using an ordered probit approach to obtain the coefficients that are applied to the calculation of marginal effects and probabilities. The sign and significance of coefficients and marginal effects were used to ascertain consumer characteristics, which are important to study the frequency of fast food consumption. The results of the study indicate that demographics such as age, income, education, household size, presence of children along with other behavioural factors, such as consumer attitude towards the price of fast food, health concerns and children preference, significantly influence the frequency of fast food consumptions.

M. Omer Azabagaoglua and Yasemin Oramana (2011) have analysed customer expectations in food sector from province Istanbul, Ankara and Izmir after 2008 world economic crisis. The researcher has applied theory of reasoned behaviour. The measurement of customer attitude towards food products have taken into consideration the product features, effect of preference group, past behaviour and behavioural intention variables. The Variables which influencing consumers' purchase intention have been tested with the help of GLM model. The research model for the study indicate that respondent's attitude toward the

particular food product had influence on their purchase intention. With other variables in the model, price was not statistically significant as a determinant of purchase intention. After the 2008 global economic crisis, surveys on food shopping behavior indicates consumer tend to decrease food expenditure, prefer cheaper brands and cheaper retailers.

Wen-Bao Lin (2007) has presented an innovative model for understanding customer satisfaction and used the nonlinear fuzzy neural network for testing the model. The result of the empirical research illustrates that in functional quality, the interpersonal based service encounter is better than the technology based service encounter. Moreover, when it comes to technical quality the technology based service encounter is better than the interpersonal based service encounter. The study reveals that the functional quality has a positive and significant effect on customer satisfaction, the service quality has a positive and significant effect on service value, the service value has a positive and significant effect on customer satisfaction. The service encounter has a positive and significant effect on relationship involvement and the relationship involvement has a positive and significant effect on customer satisfaction.

Ying-Feng Kuo, Chi-Ming Wu and Wei-Jaw Deng (2009) have analysed the relationships among service quality, perceived value, customer satisfaction, and post purchase intentions in the fast food industry. The researchers have used structural equation modelling and multiple regressions to analyze the data collected from students of 15 major universities in Taiwan. The study reveals that service quality positively influences both perceived value and customer satisfaction whereas, perceived value positively influences both customer satisfaction and post purchase intention. However, the study depicts that the service quality has a negative influence on post purchase intentions. The study suggests that in order to increase the customer satisfaction the business organisation must focus on increasing the perceived value and service quality.

Nadia Farhana and Shohana Islam (2011) while conducting the study “Exploring Consumer Behaviour in the Context of Fast Food Industry in Dhaka City” have examined the relationship between customers’ attributes, quality, value and convenience related perception with income. The study reveals that quality and value related perception is strongly and positively influenced by income. The study highlights that there is a strong and positive relationship between overall customer service and attributes related to the quality and value. Moreover, the study reveals that the customers are interested to travel distances for their favourite restaurants. In order to increase the customers’ satisfaction with regards to customer service, the fast food restaurants must focus their strategies to increase the attributes related to the quality. Additionally, the study suggests that the people are loyal to their favourite fast food restaurants without having any effect of price variance.

Wim Verbeke (2005) has evaluated the factors which are affecting the acceptance of the concept of functional foods. According to the researcher the acceptance of functional foods is determined by having a score of minimum 3 on a 5 point Likert scale measuring likes or dislikes of the food. If the food tastes good the consumer will give a score of 3 or above. The study shows that among the sample, approximately 50 percent have the acceptability of the concept of functional foods. A multivariate probit model is used by the researcher to test the simultaneous impact of demographic, cognitive and attitudinal factors on acceptance of functional foods. The study highlights that the belief in the health benefits of functional foods is the main determinant for the acceptance of functional foods. Moreover, the likelihood of accepting functional food increases with the presence of an illness in the house. The study exhibits that the likelihood of rejecting functional foods decreases with the increase in the level of awareness of the concept pertaining to the health benefits delivered by functional foods. The study reveals that this adverse impact of low awareness decreases with increased consumer age, belief, knowledge and presence of an unhealthy family member.

OBJECTIVES OF STUDY

1. To evaluate the level of customer satisfaction pertaining to Dominos and Pizza Hut in Jammu and Kashmir region.
2. To compare the companies and estimate which of them i.e. Dominos or Pizza Hut is doing better in terms of pricing strategy and overall customer satisfaction.
3. To identify the effect of pricing on customer satisfaction of the two above mentioned companies.

HYPOTHESIS OF STUDY

H₁: Customer satisfaction of Dominos is more than Pizza Hut.

H₂: Pricing has considerable effect on the customer satisfaction of Dominos and Pizza Hut.

RESEARCH METHODOLOGY

Data Collection

The study has observed the consumer behavior pertaining to the fast food industry in J&K. The study is based on customer satisfaction dimension and Pricing dimension. For this reason both the primary and secondary data have been used in the study.

Primary Data

The Stratified random sampling method was used by the researcher in this study. Where the data was collected from the customers of fast food restaurant chains like Dominos and Pizza hut located in the J&K region. The data was amassed by personally distributing the questionnaire to the customers of the above mentioned fast food restaurants. Approximately 258 respondents were requested to fill questionnaire by selecting the alternate choices available in it. After preliminary examinations,

out of 580 filled questionnaires only 516 questionnaires were found to be complete and valid, this constituted 88.96 percent response rate for the study.

Secondary Data

The secondary data has been collected in the form of various websites, doctoral thesis, research papers, books and research articles related to the topic.

Instrument Development

The questionnaire comprises of two sections namely 1st section and 2nd section. Out of these two section 1st section is self administered where as 2nd section is structured. The study has investigated the behaviour of customers of fast food restaurants on five point Likert scale. Where for each item, 1 represents strongly disagree, 2 for disagree, 3 represents neither agree nor disagree, 4 as agree and 5 represents strongly agree. The first part of questionnaire contains customer satisfaction. In order to study the satisfaction level of customers in fast food industry, 30 statement questionnaire was developed by the researcher keeping in view Customer Satisfaction Questionnaire (CSQ-8, C. Clifford Attkisson 1979), American Satisfaction Customer Index (ASCI, University of Michigan 1994), along with the factors, considering scope of research in the study area. Apart from the 30 identified items, one additional statement has been inducted as a measure of overall customer satisfaction. Second part contains pricing statements. To study perception of pricing of customers in relation to fast food industry, 7 statement questionnaires was implemented by the researchers. In addition to questionnaire the last statement studies the overall satisfaction pertaining to price of the products.

COMPARISON OF CUSTOMER SATISFACTION LEVEL OF DOMINOS AND PIZZA HUT

In order to understand the satisfaction level of the customers of McDonald and KFC the researcher has used ANOVA and descriptive statistics which is explained in Table 1 and Table 2.

Table-1: Satisfaction level of the customers of Dominos and Pizza Hut

S.No.	CHAIN	Mean Satisfaction	Standard Deviation	Rank
1	Pizza Hut	4.211	.254	2
2	Dominos	4.351	.219	1

Sources: Primary Analysis.

From the above table it is evident that the highest customer satisfaction is of Dominos ($\bar{X}=4.351$) followed by Pizza Hut ($\bar{X}=4.211$). As the value of standard deviation is less than 0.5 the researcher assumes that the values of the mean satisfaction is accurate and has less dispersion.

Table-2: ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
1	Between Groups	204.247	14	184.784	173.324	.000
2	Within Groups	24.347	51	69.712		
	Total	228.594				

Sources: Primary Analysis.

The above table shows that the significance value is less than 0.05 and the F value is 173.784 which is more than 1 and implies that the calculated value of F is more than the tabulated value of F statistic. Hence, the researcher can conclude that there is a momentous difference between the variances of groups and this difference is not caused by chance. Hence, the first hypothesis stands accepted.

Customer Satisfaction

In order to study the satisfaction level of customers in fast food industry, a 30 statement questionnaire was developed by the researcher keeping in view Customer Satisfaction Questionnaire (CSQ-8 and CSQ-30, C. Clifford Attkisson 1979), American Satisfaction Customer Index (ASCI, University of Michigan 1994), along with the factors, considering scope of research in the study area. Apart from the 30 identified items, one additional statement has been inducted as a measure of overall customer satisfaction. Where for each statement the respondents used 5 point Likert scale to express their opinion related to the concerned statements. According to the Likert scale 1 represents strongly disagree, 2 as disagree, 3 stands for neither agree nor disagree, 4 for agree and 5 represents strongly agree.

Adequacy and Scale Purification

Checking sampling adequacy and sphericity is essential before conducting Factor Analysis. In order to analyse if the data collected is fit for conducting Factor Analysis, KMO (Kaiser Meyer Oklin) test was executed on the available data.

Table-3: KMO and Bartlett's test

Adequacy		0.814
Barlett's Test of Spherity	Approx. Chi-square	187.121
	df	198
	Significance	0.0001

Sources: Primary Analysis.

Here, as the value of KMO is 0.814 the researcher has concluded that there is no multicollinearity in the data. Moreover, when the data will be subjected to factor analysis there will be no or little multiple loading in the rotated factor loading table hence, the data is fit for factor analysis.

Factor Analysis of Customer Satisfaction

Table-4: Determines the Results Factor Aanalysis was Conducted on customer satisfaction questionnaire

Name of Factor	Factor wise Dimensions	Mean Satisfaction	Factor loading	Eigens	% of Variance
Solving problems appropriately (SPA)	The staff listened to your complaints and gave prompt resolutions.	3.245	.845	8.124	24.417
	You feel that the staff can resolve your complaint in time.	3.945	.624		
	The staff had good interaction with you while solving your complaint.	3.842	.678		
	How satisfied are you with the amount of help you have received.	3.718	.617		
	The staff was able to satisfy your query.	3.597	.685		
	You are satisfied with the quality of the product serviced.	3.927	.769		
Appropriate Product Delivery (APD)	The products were delivered to you on time.	3.698	.754	3.298	9.124
	You feel that the way of the product servicing was good.	3.801	.703		
	The product delivered to you was well packed.	3.872	.649		
	The level of the need fulfilment form the product or service was in accordance with your expectations.	3.892	.751		
Well Mannered Staff (WMS)	You believe that the serving staff was well mannered.	3.827	.798	2.413	8.168
	The staff members conducted themselves in a professional manner	3.630	.708		
	Employees seem to understand how you feel.	3.873	.619		
	The staff was courteous to you.	3.874	.686		

Timely Customer Service. (TCS)	The staff served you in appropriate time.	4.184	.796	.709	2.039	7.518
	The staff was available when you wanted.	3.698	.641	.614		
	The staff told you the status of your order while it was in progress.	3.856	.670	.599		
	You waited a short period of time to get help after you asked for it.	3.874	.667	.539		
Confidence in Staff (CIS)	The staff was trust worthy and honest.	3.685	.790	.598	1.895	6.621
	The staff kept their promise given to you.	3.741	.647	.520		
	If you want to get same service you will come back to same place.	3.701	.637	.569		
Monetary Transactions with Staff. (MTS)	The staff collected money form you in an appropriate manner.	3.786	.597	.588	1.697	5.123
	The staff communicated with you properly while giving bills.	3.812	.660	.525		
	You feel that employees are concerned about extra money in form of tips.	3.830	.684	.539		
Restaurant's Promotional Activity. (RPA)	Employees gave you any sales or advertising gifts or material.	2.987	.707	.619	1.504	4.364
	If a friend needs same service or product you will recommend the same restaurant to him/ her as well.	3.741	.537	.608		
Understanding of staff. (UOS)	Staff members understand your needs.	3.857	.675	.599	1.379	4.247
	The level of the quality of the product was as per your expectation	3.621	.649	.512		
Appropriate Knowledge of work. (AKW)	The employees had knowledge of the restaurant products.	3.642	.643	.622	1.081	3.102
	The staff has enough knowledge of what they are doing.	3.287	.680	.509		
CUMULATIVE PERCENTAGE OF VARIANCE						72.684

Sources: Data Analysis.

Considering the above table the first factor that is, 'Solving problems appropriately' it comprises of 6 statements. This factor explains 24.417% of 72.684% of cumulative variance. The second factor which is, "Appropriate Product Delivery" comprises of 4 statements and this factor explains 9.124% of 72.684% of cumulative variance. The third factor is, "Well Mannered Staff" comprising of 4 statements and explaining 8.168% of 72.684% of cumulative variance.

Fourth factor is, "Timely Customer Service" comprising of 4 and 7.518% of 72.684% of cumulative variance is explained by this factor. "Confidence in the Staff" is the fifth factor comprising of 3 statements explaining 6.621% of 72.684% of cumulative variance. The sixth factor is, "Monetary Transactions with the Staff" comprising of 3 statements and explaining 5.123% of 72.684% of cumulative variance. Seventh factor is "Restaurant's Promotional Activity". This factor comprises of 2 statements explaining 4.368% of 72.684% of cumulative variance. The eighth factor is "Understands of Staff". This factor explains 4.247% of 72.684% of cumulative variance. Finally the last factor is "Appropriate Knowledge of Work" comprising of 2 statements. Moreover, this factor explains 3.102% of 72.684% of cumulative variance.

PRICING POLICY

In order to study the effect of pricing policy of the restaurants on the customers in fast food industry, A 7 statement questionnaire was developed by the researcher keeping in mind the previous researches such as Keller(2003) and Bucklin (1998) and also keeping in view the factors and considerations in context to fast food industry. The last statement studies the overall score, in this questionnaire for each statement the respondents used 5 point Likert scale to express their opinion related to the concerned statements. According to the Likert scale 1 represents strongly disagree, 2 represents disagree, 3 as neither agree nor disagree, 4 for agree and 5 stands for strongly agree.

Statement Wise Pricing Index

Table-5

S.No.	Statement	Mean	Standard Deviation
1	You believe that the quality of the product offered justifies the price of the product charged.	3.562	.325
2	The company provides free gifts.	3.873	.215
3	The company provides discount.	4.482	.244
4	There is no difference between the quality of the food items provided at discount price as compared to the food items provided without discount.	4.629	.107
5	You feel the services offered by the company delivers value for your money	4.831	.219
6	Your decision to purchase is affected by the price of the product or service to a great extent.	4.219	.159
7	In comparison to competitors the price charged by the company for service is genuine.	3.649	.357
8	Over all you are satisfied with the pricing of the products and the services of the restaurant.	4.578	.301

Sources: Data Analysis.

Note: 1= Strongly Disagree, 2= Disagree, 3 = Neither Agree nor Disagree, 4=Agree and 5=Strongly Agree.

The above table depicts that the statement with the highest value is value for money service (VMS) ($\bar{X}=4.831$), followed by quality of discounted Vs un-discounted food (DVU) ($\bar{X}=4.629$), company provides discount (CPD) ($\bar{X}=4.482$), price affecting purchase (PAP) ($\bar{X}=4.219$), providing free gifts (PFG) ($\bar{X}=3.873$), genuine price charged (GPC) ($\bar{X}=3.649$) and quality justifies price (QJP) ($\bar{X}=3.562$). The overall satisfaction with the pricing of the products and services is ($\bar{X}=4.681$) with standard deviation of 0.301. The mean value of all variables was found above mid value ($d=3$) and less than 5 on 5 point scale, which indicates that customers are satisfied with respect to pricing in fast food industry. Hence the above mentioned information indicates that customer satisfaction is influenced by the price of the product offered by the two major fast food companies.

RESULTS AND DISCUSSIONS

From the data analysis done above it has been found that both the hypothesis stands accepted and Dominos have an edge above Pizza Hut. Bearing in mind customer satisfaction and pricing, the researchers believe that Dominos has outperformed Pizza Hut.

SUGGESTIONS

The study highlights that behaviour of staff towards customers has got the least satisfaction score. Therefore, the business organisations need to focus their efforts to improve the behaviour of staff towards customers by providing individualised training programmes and connected appraisal policy for the employee.

The customer satisfaction is affected by the location and the ergonomics of the restaurant outlet. Therefore the companies need to open their outlets at right places and maintain good ergonomics. Service quality directly affects the customer satisfaction hence, the companies may invest every effort and resource to increase and maintain high level of service quality.

Fast food companies need to have direct contract and business deals with the local farmers as this will reduce the delinquency carried out by the middle men and also avail fresh raw material for the restaurants. The fast food companies may conduct regular audits and surveys to enhance their abilities to deliver better services to the potential customers and increase brand loyalty. Companies in the fast food industry can reduce the service quality gap by the induction of technology and tension reducing ergonomics.

SCOPE FOR FURTHER RESEARCH

The study is equally useful for students, academicians and the people related to the food industry. Moreover, the scope of the study is open for the future research. The researcher has made the following proposals for the same:

- A separate study can be conducted to know the effect of pricing policy on brand loyalty in the fast food industry.
- An analysis can also be performed to evaluate the effect of demographics on pricing policy in context to fast food industry.
- A comparative study can be done among fast food restaurants, street food vendors and conventional restaurants to find out their respective competency differences and similarities.

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THE POLICY REVIEW FOR HARYANA TRANSPORT DEPARTMENT: THE HARYANA ROADWAYS

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ABSTRACT

The transport sector of India is very large and diverse which caters to the needs of around billions of people. India has a network of National Highways connecting all the major cities and state capitals, forming the economic backbone of the country. The Transport Department, Haryana is committed to provide adequate, well co-ordinated, economical, safe, comfortable and efficient transport services to the people of the State. In this policy paper we have highlighted the strategic and operational level policies along with the labour welfare policy. Benchmarks for the transport industry have been studied and we have also carried the SWOT analysis of the policies and the related parameters. The growth analysis is done and the projections are made for the fleet and the manpower required for the next 2 years based on the previous database and cost effectiveness in Haryana Roadways is determined.

KEYWORDS

Transport, Haryana, Manpower, Planning, Policies, Recruitment, Training, Development etc.

TRANSPORTATION INDUSTRY IN INDIA

The transport sector of India is very large and diverse which caters to the needs of around 1.1 billion people. In 2007, this sector contributed to about 5.5 percent to the nation's GDP, road transportation contributing the maximum share. For economic growth of the country good physical connectivity in the urban and rural areas is essential. Since 1990s, a rise in demand for the transport infrastructure and services has been witnessed with India's growing economy but the transportation sector has not been able to cope with the rising demand and prove to be a drag on the economy. Hence, major improvements are required for supporting the country's continued economic growth and for reducing poverty.

India has a network of National Highways connecting all the major cities and state capitals, forming the economic backbone of the country. As of 2010, India has a total of 70,934 km of National Highways, of which 200 km are classified as expressways. Under National Highways Development Project (NHDP), there is a plan to build some of the important national highways with four lanes and also to convert some stretches of these roads to six lanes. As per the National Highways Authority of India, about 65% of freight and 80% passenger traffic is carried by the roads. The National Highways carry about 40% of total road traffic, though only about 2% of the road network is covered by these roads. Average growth of the number of vehicles has been around 10.16% per annum over recent years. Highways have facilitated development along the route and many towns have sprung up along major highways.

All national highways are metalled, but very few are constructed of concrete, the most notable being the Mumbai-Pune Expressway. In recent years construction has commenced on a nationwide system of multi-lane highways, including the Golden Quadrilateral and North-South and East-West Corridors which link the largest cities in India. In 2000, around 40% of villages in India lacked access to all-weather roads and remained isolated during the monsoon season. As per 2009 estimates, the total road length in India is 3,320,410 km (2,063,210 miles); making the Indian road network the third largest road network in the world. Buses are an important means of public transport in India, particularly in the countryside and remote areas where the rail network cannot be accessed and airline operations are few or non-existent. Due to this social significance, public bus transport is predominantly owned and operated by public agencies, and most state governments operate bus services through a State Road Transport Corporation. These corporations, introduced in the 1960s and 1970s, have proven extremely useful in connecting villages and towns across the country.

About Haryana

In 1966, when Haryana was carved out of Punjab there arose a need of separate transport unit which would connect every part of the state with other parts effectively. So, in 1966 HRTL was established with two Regional Transport Authorities. On December 1, 1987, three RTAs were appointed at Ambala, Hisar and Faridabad. On January 16, 1991, three more RTAs were created at Rohtak, Karnal and Rewari.

A well-planned and efficient network of transport is an essential component for a developing economy. The Transport Department, Haryana is **committed to provide adequate, well co-ordinated, economical, safe, comfortable and efficient transport services to the people** of the State. Transport Department continued to stride forward during the year. The Transport Department, Haryana has two wings i.e. the Regulatory Wing and Commercial Wing (Haryana Roadways).

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With its extensive network of roadways, even the remotest areas are connected with metalled roads. It is one of the few states that offer 100 percent connectivity by means of metalled roads. Haryana Roadways has a fleet of approx. 3500 buses being operated by 21 depots, each headed by a General Manager, and 17 sub-depots functioning under the depot concerned. These services are being provided to every part of the State as well as to important destinations in the neighboring States. Haryana Roadways plies on an average 1.11 million Km every day and carries 1.12 million passengers daily on 1116 Intra-State and 446 Inter-State routes.

The Roadways operates about 11.00 lakh Kms. daily and carries about 11.00 lakh passengers every day with a staff of 16815. The performance of Haryana Roadways has been noteworthy on parameters like average age of fleet, vehicle and staff productivity, operational cost per km. (without taxes), and accident rate and fuel efficiency. Haryana Roadways has won many awards at the national level. National Highways, NH-1, NH-2, NH-8, NH-10 and NH-22, pass through the state. There are four national highways that link the state with its neighboring areas. Haryana has 24,218 km of roads with nearly 1,512 km of National Highways. This includes the highway connecting Delhi and the state's important business centers. The State Government gives high priority to surface transport and connectivity with inland container depots and express highways. Covering an area of 44,212 sq km, Haryana surrounds the national capital city, New Delhi, from three sides. Chandigarh is Haryana's capital city. Punjab also has its administrative capital in Chandigarh. Haryana has 21 administrative districts. Haryana has a large base of skilled labour, making it an ideal destination for knowledge-based and manufacturing sectors. Further, the state has a large pool of semi-skilled and unskilled labor for support services. Over the years Haryana Roadways has earned a name for itself for the range and quality of services provided by it. In tune with the emerging requirements of the travelling public, Haryana Roadways has undertaken a series of new initiatives to provide better services to its clients. New Volvo AC bus services 'SAARTHI' have been introduced on Chandigarh-Delhi-Gurgaon, Chandigarh-Delhi-Faridabad routes. Some of the trips are also touching the Indira Gandhi International (IGI) Airport and the domestic Airport Delhi.

OBJECTIVES OF STUDY

- To highlight the policies related to the different aspects of manpower planning (recruitment, T&D etc.).
- To trace the new labour welfare measures taken for enhancing the quality of life of the manpower.
- To make the projection for the manpower required for the next 2 years based on the previous database and cost effectiveness in Haryana Roadways.
- To work towards determining the growth in the Haryana roadways within the years.

HARYANA TRANSPORT STRATEGIC LEVEL POLICIES

The Haryana Transport strategic level policies we have referred in this paper came into force from the date of its publication in the Official Gazette.

Recruitment Policy

Eligibility Criteria for the Recruitment in Haryana Roadways

The following shall be the eligibility criteria:

- The applicant should be a domicile of the State of Haryana.
- The applicant shall be 10th pass under the 10+2 system for general category and 8th pass for applicant belonging to Scheduled Castes.
- The applicant shall be more than 18 years and less than 40 years in case of general category and shall be more than 18 years and less than 45 years in case of candidates belonging to Scheduled Castes, Backward Classes, Widows or legally separated women.
- The applicant shall be unemployed; and shall not be employed in State Government, Central Government, Public Central Undertaking or organized Sector/ limited company. Affidavit in this regard shall be submitted by the applicant duly attested.
- If any of the information given by the applicant found to be incorrect, his permit will be cancelled and he shall be prosecuted as per law. If the number of applicants fulfilling the eligibility criteria including driving license of heavy transport vehicle are more than the route permits available for allotment, in that case, allotment shall be made through an open draw of lots following a transparent procedure from amongst such eligible applicants.

However, if sufficient number of the applicants fulfill the condition of having a HTV licence eligibility, then the applicants who hold a Light Transport Vehicle driving license and have applied for a HTV licence at the time of application and he obtains a HTV licence within one year of allotment and he fulfill all other eligibility conditions.

Reservation Policy for recruitment in Haryana Roadways

The reservation shall be as per the reservation policy of the State Government. The Government of the State may reserve certain percentage of the Stage Carriage permits for the Scheduled Caste, Backward Class, Ex-Serviceman and other categories. The aim of the reservation is to provide adequate opportunities to all the sections of the society both to contribute to the transport sector as well as to benefit from the economic opportunities offered by the sector.

Retirement Policy

Earlier the retirement age in Haryana Roadways was 55 years, and then the retirement age was increased to 58 years but now according to the new government policy the retirement age has been increased to 60 years. The employees can also take the VRS when given the opportunity. Regular health checkups are conducted for the timely review of the health of the employees. They are provided with the benefits as and when required as per their scale of work.

Training and Development Policy

- Haryana Roadways is running **6 Departmental Drivers Training Schools** for training and certifying new heavy vehicle drivers. These are Drivers Training Institute, Murthal (Sonapat), Haryana Roadways Central Workshops, Karnal / Hisar; Haryana Roadways Workshops at Gurgaon / Rohtak and Driver Training School, Mohindergarh. During the year 2009-10, an amount of Rs. 25.13 lakh has been spent for modernization of Driver Training Schools. An amount of Rs. 15.00 lakh has been earmarked for the Annual Plan 2010-11.
- The Government has taken the initiative to establish **three more Institutes of Driving Training and Research** in the State. These institutes are being established at Bahadurgarh, Rohtak and Kaithal. An approximate amount of Rs. 60.00 crore will be spent on these institutions. The construction work of the building of institutes is almost complete. These institutes will not only provide training to the drivers but will also be used for generating awareness about the matters concerning safety of road users.
- The **Regulatory Wing of the Transport Department** enforces the provision of Motor Vehicles Act, 1988 and Rules, issues driving licences and conductor licences, registers the motor vehicles, issues certificates of fitness to transport vehicles, grant permits, carries out road safety work by conducting awareness campaigns, checks emission levels in vehicles and trains the drivers.
- The Government proposes to introduce **Modern Smart Card Based Vehicle Registration and Driving Licence System** for efficient delivery of services, better monitoring and security.

Operational Level Policies

Duties and Responsibilities of Transport Operators

- The driver of the bus shall have a valid driving licence (for heavy transport vehicles). The conductor of the bus shall also have a valid conductor's licence issued by competent authority. They shall be provided with Passenger Service Vehicle badges and shall have to get their licenses renewed from time to time.
- The staff (Drivers / Conductors) deployed by the private permit holders for operating the buses under this policy shall be issued photo identity cards and a copy of which shall also be submitted in the office of Secretary, Regional Transport Authority. The photo identity card shall be duly attested by the Allottee (in case of individual permit holder) and President of the Society (in case of Transport Co-operative Society).
- The particulars of the staff appointed by the private operator shall be submitted to the Secretary, Regional Transport Authority and also to the local Police Station for Information and record.
- The mandated provisions of the Labour Laws like minimum wages, weekly rest, maximum duty hours, EPF and ESI contribution gratuity etc. shall be applicable to the staff. The Staff / Drivers / Conductors shall have to be provided uniform as prescribed by the State Transport Authority / Regional Transport Authority concerned.
- The staff deployed for the private route buses shall not have any criminal record. An affidavit shall have to be submitted by Permit Holder in the format prescribed by Secretary, Regional Transport Authority in this regard.
- To keep the bus road-worthy in accordance with the provisions of Haryana Motor Vehicle Rules, and arrange necessary repairs at his cost.
- To ensure proper cleanliness of the vehicle during its operation.
- To ensure insurance covering third party risk.
- To produce the vehicle for inspection at the time of engagement and also subsequently as and when required.
- To arrange replacement of a bus on completion of ten years of life or earlier if required due to involvement in accident or due to damage in fire or other natural calamity etc.
- To ensure that the bus invariably stops on all the scheduled bus stops enroute.
- To display photographs of authorized drivers with particulars / antecedents duly verified from the Police inside the bus.
- To ensure that the bus maintains 100% of the scheduled operation during a year.
- To ensure that the drivers and conductors engaged by the operator do not involve in any subversive activities, disruption in normal services and inconvenience or / and harassment to the commuters.

Labour Welfare Policy

Tripartite Consultations

- Conferences are organized with Industrial Associations as well as Trade Unions/Workers Organizations towards greater Social Dialogue and for free and frank exchange of ideas towards promoting a more transparent working environment in the Department and to bring about requisite fine-tuning of departmental policies.

- Appropriate system has evolved for receiving and handling of suggestions and complaints from workers and managements in order to get regular feedback and points raised by them will be taken into account in decision-making.

Facilitation

- The applications for registration, licensing and for approval of factory building plans under the Factories Act, 1948 has to be submitted to the Senior Assistant Director, Industrial Safety and Health in their respective areas. They will assist the applicants in ensuring that the applications are completed in all respects before sending these to the Chief Inspector of Factories. This will facilitate and speed up the process.
- Detailed information is disseminated to workers and managements to promote greater consciousness regarding ergonomics and to prevent the occurrence of industrial accidents.
- The procedure for obtaining Registration and License under the Contract Labour (Regulation and Abolition) Act, 1970 is now simplified and made time bound. Special emphasis is laid on redressing the grievances of contract labour, protecting their rights and preventing their exploitation.

Inspections

- The approach towards implementation of labour laws is to ensure compliance rather than prosecution. Whenever shortcomings are detected during the inspections of the organizational unit by the inspecting teams, the employers will be given notice of a reasonable period of time to rectify the same before any further action is taken by the inspection unit against the organization.
- An industrial establishment will not be inspected by the functionaries of the Industrial Safety and Health wing of the Labour Department more than once in a calendar year, unless a specific complaint is received in respect of their establishment against the organization.
- Computerized statutory records under various labour laws will be acceptable and valid in any industry or commercial establishment, provided the format and information conforms to the requirement of the respective law and rules made thereunder the Industrial Safety & Health wing.
- However, a hard copy of these records, duly signed and authenticated by the Occupier of the establishment, will have to be kept available every month for statutory inspections. Such hard copies and a soft copy will be made available to the Inspecting Officers as and when required. In cases of electronic payment of wages, a certificate from the concerned bank(s) will have to be submitted to the Inspecting officer as proof of payment of wages. However, wage slips will have to be issued to the workers as per law and there will be no exemption in this regard.

Settlement of Disputes

- Trade Unions and Managements will be encouraged, through systematic intervention by the Labour Department, to set up in-house dispute resolution mechanisms in order to defuse disagreements in the initial stages by dealing with them on a day-to-day basis. Outsiders and non-workers, who are not covered under the requisite laws, will not be allowed to associate themselves in the functioning of the Trade Unions and to take part in conciliation proceedings.
- The performance of the Labour Department Officers dealing with the conciliation work will be adjudged on the basis of percentage of settlements brought about in order to speed up the process of dispute resolution.
- It will be the endeavour of the Department to have maximum percentage of disputes settled in the early stages, in order to avoid burdening the Labour Courts. However, functioning of the Labour Courts will be facilitated by the Government for speedy disposal of cases. For this purpose, the Government has decided to set up two additional Labour Courts one each at Gurgaon and Faridabad, apart from the existing seven labour courts.

Minimum Wages

- The minimum wage of industrial workers in Haryana is one of the highest in the country. At present, the minimum wage of unskilled workers has been fixed at Rs. 2359.54 per month and Rs. 90.75 per day. The Government will continue to review and increase these wages from time to time on the basis of tripartite consultations.

Labour Welfare

- Besides ensuring the enforcement of welfare provisions of the labour legislations by the department, welfare schemes for industrial workers such as kanyadan, ex-gratia help to widows, monetary grants for workers injured in industrial accidents, scholarships and financial help for worker's children for pursuing higher studies etc. are presently being implemented. The Government intends to ensure coverage of a wider section of workers under various welfare schemes and also enhancement in the existing assistance being provided to workers.

BENCHMARKS IN HARYANA ROADWAYS

The Union Ministry of Urban Development has now evolved a system for evaluating urban transport services in cities across India. All cities covered by the Jawaharlal Nehru National Urban Renewal Mission (JNNURM) have been advised to benchmark their level of services for various parameters specified by the ministry. The parameters on which the cities would be graded include public transportation system, pedestrian facilities, cycle lanes, and even air pollution among others. The exercise aims to

generate information that will be useful in making urban transportation systems effective. The following **benchmarks** have been set up:

Public Transport in a City

The SLBs for public transport system indicate the city wide LOS (Level of Service) provided by public transport systems during peak hours. This would require indicators such as presence of organised public transport system, its availability, bus route network density, and service frequency, level of comfort and percentage fleet as per urban bus specifications.

Pedestrian Infrastructure Facilities

It indicates the percentage of road length along the arterial and major road network or public transport corridors and at intersection that has adequate barrier free pedestrian facilities. The indicators include signalised intersection delay, street lighting and percentage of city covered with footpaths wider than 1.2 metres.

Usage of Intelligent Transport System (ITS) Facilities

The level of usage of ITS facilities by public transport and IPT modes will be determined by the availability of traffic surveillance system by CCTVs, passenger information system, global positioning system, signal synchronization and integrated ticketing system.

Travel Speed along Major Corridors

The SLBs regarding travel speed of motorized and mass transit vehicles along major corridors mean the average travel speed of all through vehicles on the key corridors.

Road Safety

Many cities are witnessing accidents leading to injuries and fatalities. The Indicators to measure road safety include fatality rate per lakh population and percentage of fatality rate for pedestrian and NMT. The benchmark for the fatality rate is zero which means that fatalities and injuries should be brought down to zero.

Pollution Levels

It indicates the level of air pollutants in the city. Based on the CPCB standards for pollutants such as RSPM, SPM, NO₂ and SO₂, the pollution level of a city can be designated as low, moderate, high, and critical.

Financial Sustainability of Public Transport

The financial sustainability of public bus transport would depend on extent of non-fare revenue, staff per bus ratio and the operating ratio.

SWOT ANALYSIS

Table-1

Parameters	Strength	Weakness	Opportunity	Threat
Recruitment	Availability of the surplus labor.	Less trained labor.	-	-
Training & Development	Training institutes are open at different places in the state to provide the better training to the employees.	The number of these training institutes is very less.	Options are open for better and trained employees and growth of the organization.	-
Recruitment	The PF and other funds that are cut during the duration of the job are given to the employees on their retirements as it is kept with the government as employee's savings.	-	-	-
Labour Welfare	Helps to deal with the disputes arising between the different parties in the organization and also helps to avoid the mishappenings and accidents with the help	For every small settlements, unions are involved.	Helps to maintain the proper bonding between the employers and the employees.	Unions in the organization can sometimes create unnecessary unrest among the employers and the

	of the timely inspection in the organization.			employees, this hampers the growth of the organization.
Employee Satisfaction	More satisfied employees due to job security and limited working hours and limited and evenly distributed workload.	Limited growth opportunities and also less training and development facilities.	-	-
Services	Better and improved services as compared to the past.	Haryana roadways still suffers from the image problem, It provides better but limited services.	New buses on different routes and better facilities while travelling can change the perception of people on public transport.	Due to more income people prefer travelling in the private transport as compared to the public transport.
Cost	The fare asked is according to the services and the facilities provided.	Overloading of the buses makes the journey unsafe and uncomfortable.	Minimal cost helps to provide better services to the customers at the reasonable cost.	The journey is prone to mishap penning and accidents.

Sources: Authors Compilation.

Table-2: Growth Analysis of Fleet and Manpower in Haryana Roadways (Year-Wise)

	2007	2008	2009	2010	2011	2012	2013	2014
Fleet	3293	3353	3379	3403	3469	3864	3238	3883
Employees Strength	18106	18392	17855	16815	16599	16619	18413	16086

Sources: Authors Compilation.

The fleet size in the year 2013 and the year 2014 is calculated with the help of the statistical function TREND that is used to return numbers in a linear trend matching known data points, using the least squares method. The formula used to find the fleet size in year 2013 = GROWTH (B2:B7, A2:A7) and the formula used to find the fleet size in 2014 = GROWTH (B2:B7, A2:A7, A9:A10) when the data is entered in MS EXCEL.

The employee strength can also be calculated using the same procedure.

Cost effectiveness (2010-2011)

Maintenance	4060.18 (Rs. in lakhs)
Fuel	33909.84(Rs. in lakhs)
Employee	20275.18(Rs. in lakhs)
Others (Depreciation, Motor Transport Reserve Fund, Interest Tax, miscellaneous)	26789.88(Rs. in lakhs)

Operational Cost (a): Fuel cost + Others =	60699.72 (Rs. in lakhs)
Overhead Cost (b): Maintenance Cost + Employees Cost =	24335.36 (Rs. in lakhs)
PROFIT (a-b):	36364.36 (Rs. in lakhs)

GROWTH IN HARYANA ROADWAYS

- The Government is keen to further improve the public transport in the State and has taken many initiatives to improve the bus services and upgrading the public amenities at the Bus Stands. The Government has increased the plan outlay of the department from Rs. 56.00 crore during 2004-05 to Rs. 57.00 crore during 2010-11 to ensure timely replacement of the buses as well as to upgrade and modernize the infrastructure of the Roadways. 445 buses were replaced during 2009-10 with newly designed buses. During 2010-11, it is earmarked to replace 550 old buses with new buses and 410 towards addition to the fleet. 409 buses have already been replaced with newly designed buses upto 31.12.2010. The department spent Rs. 95.07 crore for acquisition of fleet during 2009-10. An outlay of Rs. 32.60 crore has been earmarked for this purpose during the current financial year 2010-11.
- The fleet strength of Haryana Roadways is fixed at 3500 buses currently and is proposed to be increased by another 1000 buses, raising it to 4500 buses by the end of the 11th Five Year Plan. It includes CNG, AC, SLF and Volvo AC buses. New bus services have been introduced to provide improved transport services to the people like Saarthi Volvo AC Bus Services, Haryana Gaurav Bus Services, Haryana Shakti, Haryana Uday CNG Bus Services, Low Floor AC/CNG Buses and Semi Low Floor Buses.
- Haryana Roadways had introduced the first phase of City Bus Services in Faridabad city as a part of 2nd stimulus package under the Jawahar Lal Nehru National Urban Renewal Mission (JNNURM) Scheme for providing comfortable and adequate Urban Transport Passenger Services to the people w.e.f. 23.1.2010. Under this scheme, 29 buses (15 Low

Floor Volvo AC & 14 SLF Non AC buses) have already been pressed into service in Faridabad. An adequate city bus service has also been plied in Gurgaon on Public Private Partnership (PPP) pattern.

- Haryana Roadways has started the city bus services in many of its districts to make it possible for people to travel within the city with great ease. Many new buses have also been started on the different routes and have also increased the level of bus services on certain routes.
- To meet the ever expanding transportation needs of the public, the Government has created additional services in the public transport system by involving the private sector as well as by strengthening and expanding fleet of Haryana Roadways. To meet the demand in the interiors of rural area, mini buses will be introduced. The Stage Carriage Scheme is being amended for this purpose.
- Annual plan 2011-2012:
- An outlay of Rs. 4364.33 crore which is 33.06% of the total approved plan outlay of Rs. 13200.00 crore has been allocated for the improvement/extension of the basic infrastructure of irrigation, power, roads & road transport.
- An allocation of Rs. 1437.53 crore has been kept in the Annual Plan 2011-12 for the development of Road network and Transport facilities in the State. Out of this, an outlay of Rs. 1271.68 crore has been approved for the construction of Roads and Bridges. An allocation of Rs. 165.00 crore has been approved for replacement of old buses, construction of bus stands/shelters, modernization of workshops etc. An outlay of Rs. 0.85 crore is kept for Civil Aviation.

CONCLUSIONS

- The surplus labour is available for each level of work but there is a need for the more trained labour. Though the training institutes are open at different places in the state to provide the better training to the employees that open the options for the better and trained employees that in turn will lead to the growth of the organization but the number of these kind of institutes is very less and there is a need for more such institutes. The provident fund and other funds are given to the employees at the time of their retirement. All the facilities that are provided by the government to its employees are detained at the time of the retirement.
- Labour welfare measures are given more consideration so as to enhance the quality of life of the manpower and also to avoid any kind of disputes arising within the different parties in the organization. Proper facilities are provided to the customers under the factories act. The timely inspection of the organizational units helps to reduce the mishappenings and accidents and also to overcome the shortcomings arising in the organization.
- There has been a tremendous growth in Haryana roadways. In last few years they have started many new buses and improved their efficiency by the means of providing better services to its customers. Many new buses with the improved and better facilities have been started. The super deluxe buses also had entertainment facilities like T.V. for the relaxation of the passengers. The buses have proper stoppages in between the journey so that the passengers can eat and relax for some time. The first aid boxes are also present in the buses for the safety and health of the passengers.
- The fleet size of the Haryana roadways is increasing continuously every year as the organization is deriving lots of revenue and is utilizing its revenue for providing better services to its customers leading to the growth of the organization. It is estimated from the growth analysis that the fleet size will reduce to 3238 in the year 2013 and will again increase to 3883 in the year 2014.
- The number of employees working in Haryana roadways keeps on fluctuating according to their actual requirement so as to reduce the wastage and make optimum utilization of the manpower. The employees now days are more aware of their duties and work in accordance to the tasks assigned to them. The track of employees and their duties is maintained so as to make them work more efficiently and more productively. The number of employees in the year 2013 is expected to rise to 18413 and then reduce to 16086 by the year 2014.

LOOKING AHEAD: THE FUTURE DIRECTIONS

Globalisation

Radical changes in the realm of transport and communications has sandwiched time and distance, shrinking the world into a global village. Satellites, computers and fibre optics would create the reality of a global electronic village, reducing business and travel for work, perhaps even reduce the shift from the rural to urban areas.

Movement in the region will grow with a concerted effort made to develop highways and railways of international importance and to facilitate crossing of goods and vehicles at borders. Large emerging markets of countries like China, India, and Indonesia is already attracting the interest of international business and manufacturing processes distributed over several countries making transport, of the final packaged product at the consuming point a major logistic exercise, helped by computerized information on markets and costs.

A liberalized regime of trade and transport helped by electronic documentation and streamlined custom procedures have expanded the scope for international trade in goods and services, increasing demand for movement within and across national boundaries.

Technology

The periodical technical revolutions over the years have been of vast importance in the development of transport, with the big break through coming often from the industries outside transport. While railways have been responsible for a good measure of development, in other modes, there is little technological development by the carrier. The supply industries have produced the ideas and the equipment. The suppliers of airfields, roads and ports have found greatest reduction in "unit costs per movement".

Transport technology is of special significance in transport planning both for logistics and usage. The changes in technology by upgrading and up rating meet the fast increasing requirements of transportation bringing economy and efficiency, energy conservation and expedition in mobility.

The main concerns will be to have maintenance free equipment, providing safety on railways and highways, in handling systems, in reducing pollution, using IT for processing data and computers for improved designs.

The Highways will show much technological change on the next two decades by way of a new generation of express ways, modernization of construction practices and better traffic management. The need is to catch up on years of under maintenance, especially in view of the heavier loads anticipated and for adoption of new technologies in maintenance.

Maintenance of Assets

With the transport network increasing significantly particularly the roads, maintenance will be the biggest challenge. It will be necessary to maintain these assets by adequate and timely maintenance. At present the maintenance of the highways suffer from under funding and outdated maintenance methods and organization. As maintenance of the roads goes down, vehicle operating cost go up. A very important factor is the overloading of vehicles. Studies have revealed that the damaging effect of an overloaded vehicle to the pavement increases exponentially to the power of four when the axle load exceeds the load for which it is designed.

The maintenance of roads would require a coordinated institutional framework involving the government institutions, the contracting industry, the equipment industry and the consulting organizations.

Energy and Environment

The Transport sector is one of the major consumers of energy and the road transport sector fully dependent on liquid fuel. The massive increase in the number of vehicles will not only consume more fuel but also cause pollution. Both technology and regulation will be necessary to have more fuel efficient engines which are less polluting. Transport also involves broader environmental issues. Land intrusion and congestion are some of the areas of conflict between transport and environment. It would be essential to cover environmental concerns at the planning stage itself to reduce the negative impact of the growth in the transport sector. On this count the more energy efficient and less polluting mode, railways, will have an edge and a scoring point to improve its market share in the transport business.

Data Base

Despite recommendations of various committees, the traffic flow and cost data is not collected in a systematic and regular way. There is no reliable information on the quantum of traffic carried by road transport either for freight or for passengers. Several estimates have been made by different agencies and the variations between them often as high as 100%. For the most dominant mode of transport lack of this important data affects the planning process adversely. With the growing use of computers and advancement in information technology, a concerted drive would be necessary in this direction. The check posts and barriers in some cases are inevitable, and these could be used for capturing the data on a regular and systematic basis. Help from several institutes of transport training and research could be sought in developing such a system.

Financial Investments and Pricing

To meet the transport needs of the future, investment requirements will increase to levels three to four times higher in real terms from the present levels. The financing of this level will be a massive task. While the government will continue to be a major source of funds for infrastructure, internal generation of resources by the sector itself will have to increase. Pricing of transport services and reduction in the costs will have to play a much bigger role than in the past. A larger role of the private sector is also visualized.

Public transport organizations have stayed too long with the cost plus tariff policies (although often not even covering costs) without much emphasis on reduction of costs. Cross subsidization by freight of losing passenger services on the railways for example has made IR's freight tariffs one of the highest in the world, driving out the business from rail to roads. While the Central Road Fund (CRF) has become the main lever for development of roads, making toll roads, private sector participation in Expressways and a rational user charge to the road user is necessary for the development and maintenance of roads. Investments in vehicles are mostly in the private sector except for State Road Transport undertakings which is fast coming down and being replaced by the private sector.

Roads and Road Transport

Road transport will continue to be the dominant mode in the sector. By 2020 the Golden Quadrilateral of Delhi-Mumbai-Chennai-Kolkata-Delhi and the link from Srinagar to Kanyakumari and Silchar to Porbandar will have 4 (or more) lanes of the National Highways and close to the metro cities some 5000-10000 kms of Expressways. The volume of traffic would have grown 5 times over present levels, with as much increase in the number of vehicles and HSD consumption. This will pose a serious challenge in the operations of movement. Action will have to be taken to reduce the time losses at borders/barriers / check posts. Some of these are inevitable but through use of IT the flows could be smoothened. Collection and compilation of data for road transport is another weakness which will have to be tackled.

Some of the other areas for attention would include:

- Ribbon development and problem of encroachments.
- The door to door service on road transport would under go a change with multi axle vehicles being used and its entry restricted in the cities. Long distance movement through Transport Nagars (new terminals) and further distribution through light commercial vehicles.
- Over loading of vehicles would need to be monitored closely.
- With increased passenger travel on the Highways, there would be a need to develop road side amenities.
- Improved safety on the roads, through technological inputs in vehicles, designs and traffic engineering and through education and training.
- Encouraging private sector participation and toll roads.
- Review road user taxes and charges for raising additional revenue.
- Ensure adequate capacity for manufacturing Trucks and Buses and reducing the growth rate of populations of two wheelers in cities through better public transport.

Integrated Transport Policy

Transport planning cannot be a disjointed effort and has to view the totality of demand, cost, supply, return and in each mode, the relative levels of efficiency and productivity. This would involve economic costing and physical planning in the context of the overall systems requirements.

A choice between different modes of transport with its quantitative and qualitative limitations is often not entirely interchangeable. The liberalization of the economy recognizes the need for an efficient transport system providing an adequate and reliable transport infrastructure. An overall and integrated policy therefore needs to be in place to encourage competitive pricing and coordination between different modes.

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ETHICAL ISSUE IN MARKETING OF B-SCHOOLS: A CONCEPTUAL OVERVIEW

Snehal J. Bhatt¹⁷

ABSTRACT

Service sector has witnessing the tremendous growth in this down economy. Now a day, India is being posed as most potential and growing economy of the world, not only in terms of market size but also in terms of technology up gradation. Service sector contributes to nearly 60% of the nation's GDP. It is estimated that business education market in India is Rs. 40 billion with an annual CAGR of 12%. There are more than 1,550 business schools producing over 100,000 management graduates per year. While reaping the benefits of the education sector, one emerging issue of ethics has surfaced. Predominantly, service marketing is different from product marketing due to its very nature and hence the concept of ethics is very important for service providers. While it is easy for consumers to compare the products, it becomes very difficult for customers to compare the service. Due to this fact, many service providers take undue advantage. This calls for an immediate action which can help the service provider as well as customers to avoid unethical practices.

The paper is divided in to two parts: first part deals with the nature of service marketing. Second part deals with the ethical challenges faced by the service providers.

KEYWORDS

Services, GDP, Ethics, Services Marketing, Business Schools etc.

INTRODUCTION

In common parlance, ethics refer to a system of accepted beliefs based on morals that control behaviour. Thus, business ethics are generally construed as rules, standards or principles that provide guidelines for morally appropriate behaviour for businesses. However, ethics is concerned with clarifying what constitutes human welfare and the kind of conduct necessary to promote it. Ethical issues emerge when our perceptions of what constitutes human welfare requires clarifications to a moral dilemma. Thus, ethics involves judging human ends and controlling means to achieve these ends.

Definition of Service

American marketing association was one of the pioneers in defining the word services in 1960. Accordingly, the definition of services had been **“activities, benefits, or satisfaction which are offered for sale, or provided in connection with the sales of goods.”**

In 1964, Robert C. Judd, in his article ‘The case for redefining services’ in Journal of Marketing, defined service as “a market transaction by an enterprise or entrepreneur where the object of the market transaction is other than the transfer of ownership of a tangible commodity”.

DISTINCTIONS BETWEEN PRODUCTS AND SERVICES

1. Products are tangible while services are intangible.
2. Products are homogeneous in many respects while services are predominantly heterogeneous.
3. Product can be produced, distributed and consumed at different times but services are produced, distributed and consumed at the same time.
4. Products are separate entities while services are the set of activities.
5. Product is a result of factory production while services are possible with buyer-seller interactions.
6. Customer participation is not required in the production process while in services, non-participation is not possible.
7. Products can be stocked while services cannot be stocked.
8. Product can be owned while service cannot be owned.

EDUCATION SECTOR

The word education has a broad meaning and coverage. It might be general or highly individualized or specialized. Today, formal education system right from lower K.G. to upper P.G., there is a need for extra teaching, coaching, consultancy and guiding. Due to these factors, education institutions are increasing in number by leaps and bounds.

The purpose of the education is to produce competent human resources in order to develop the state and nation. Knowledge gained from educational institution was neither considered industrial nor service product and hence it is considered as state property.

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The rush towards the B schools has witnessed a tremendous growth in the last 5 years. Due to this rush, the government has to increase the number of B schools to give management education to the demanding student fraternity. With the high faculty per student ratio, it is empirical that there is scarcity of knowledgeable faculty in B schools. Only top B schools are able to attract and retain the best faculties available. Due to these factors, the demand of B schools had suddenly dropped.

This is where the unethical practices have taken place in the marketing of B schools. Due to these unethical practices, the demand of management education has further gone down. The students are flying to foreign countries for pursuing management education.

ETHICAL ISSUES IN EDUCATIONAL INSTITUTIONS MARKETING

Ethical marketing refers to application of marketing ethics into the marketing process. Marketing techniques are sufficiently developed and improving all the time to maintain a similar level of knowledge of customer expectations. The goals of the marketing department are to target an audience, appeal to that audience, and get the audience to purchase that particular product or service. In doing this, a company must make sure that they are first abiding by all laws and regulations, but they should also strive to be sure that they are acting ethically and honestly.

Following are the key ethical issue in marketing of educational institutions:

1. False Advertising

Many of the educational institutes give misleading and false advertising in the media. The parents along with the students believe it to be right, but once they realize it is too late. Fees are already been paid in advance in full, so cancellation of admission is also not feasible for students. Moreover, on cancellation fees are not refunded.

2. Placement Figures

Majority of the students and parents are concerned about placement provided by the educational institution. To take the advantage of this situation, many educational institutions give false placement details to attract the students to their institution.

3. Renowned Faculty

Any institution is as good as its faculties. Most of the institute emphasized on renowned faculty in there institutions. But after getting the admission in the institution, students come to know that the faculties are the graduates of the same institute. They do not have any practical experience in industry. Institutions provide them less salary and on ad hoc basis which is very cheap compared to hire an expert faculty with relevant experience.

4. Free Laptops and Foreign Tours

Now a day, free laptops and foreign tours for study has been highlighted in the advertising of educational institutions. This is not coming at free of cost. This is already included in the fees paid by the students. The foreign tour for academic purpose became only the picnic tour in most of the case. Sometimes, this tour is not at all organized.

5. Infrastructure Availability

Educational institutions promises sound infrastructure like hostel, drinking water facilities, library, and computer lab with good connectivity, gym, conference room, ladies room etc. The fees have been collected for all this facilities. Less known institutions or newly set up institutions do not have such infrastructure.

6. Latest Curriculum

Every student wishes that whatever they study should be updated. The curriculum taught in the institutions is seldom changed or only a few parts are changed. The books being referred are also old compared to top notch institutions. This will result in dilution of knowledge and the student ultimately suffers in the interviews.

7. Seminars and Conferences

Practical knowledge can be gained by organizing seminars and conferences in varied themes. But the institute only focuses on academic part or course completion before the time of exams. Seminars and conferences are not arranged in the institute due to either lack of fund or lack of top management support.

8. High Fees

Apart from the regular fees collected by institution, various fees are collected such as examination fee, sports facility fee, etc. These fees are abnormal compared to other institutions. Also, some times the receipt is also not given for certain fees.

CONCLUSIONS

The rise in the number of B schools has forced the institutions to use unfair means to fill their seats. The number in increase in colleges is a welcome step. But when the supply exceeds the demand, unfair practices come in to picture. Due to increasing competition in the job market, parents and students try to select the best institution for education. To take the advantage of this over concern situation, educational institutes uses false advertising to attract the students. This education institution simply runs for profit. To accomplish profit centric objectives, it uses all the means to fill their seats.

These ethical issues are prevalent in majority of education institutes. Moreover, this information is also included in institutions brochure and is freely circulated. These institutes use all the media to spread this false information as fast as possible during the admission seasons. No practical exposure is gained by students as this institutions focuses only on study related aspects. Faculties are also the new pass outs from the same institutions. If the faculty wishes to change the situation, then they are not given powers to change it.

Internet is the need of today's competitive world. Most of the institutions do have internet facilities but they run slowly or the computers are of older configuration. The charges for lab fee are very high in institutions. The websites are also not updated regularly so that student fraternity can get correct information. Students are given written assignments of the previous question papers. This definitely increases the result but this type of spoon feeding is not required at post graduate level.

Mostly, no official complaint is lodged again this institution. Students should check all the relevant facts, figures, facilities etc. before seeking admission in any institution. If he/she found cheated, immediate complain should be lodged against institution. Government should also take the utmost care to prevent this type of unethical practices.

Academic institution creates the real citizens of the country. If this institution uses such unethical practices, it will damage the society in long run. Hence, "Prevention is better than cure" should be the motto of the parents and students fraternity before falling in trap of such unethical practices.

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THE EVOLUTION OF QUALITY ASSURANCE IN MANAGEMENT EDUCATION ITS ROLE, CHALLENGES AND OPPORTUNITIES

Vani Ramesh¹⁸

ABSTRACT

Indian Higher Education system has undergone massive expansion in post-independent India with a National resolve to establish several Universities, Technical Institutes, Research Institutions and Professional / Non-Professional Colleges all over the country to generate and disseminate knowledge coupled with the noble intention of providing easy access to higher education to the common Indian.

The excellence of our university products and professionals is well acknowledged both at home and abroad. The competitive advantage of the country can be maintained and improved only if the university and higher education sectors perform well. Their contribution to improving our capability to interact effectively with the fast expanding global and techno-economic systems has been significant and their potential needs to be harnessed to the full. A large number of centers for excellence to turn out quality manpower in areas relevant to Industry and society need to be established with the triangular partnership of Academic, Industry and Government.

You as a teacher / stakeholder of higher education, will agree that it is not just about the higher level of educational structure in the country, it is imparting in-depth knowledge and understanding so as to advance the students to new frontiers of knowledge in different walks of life. This article brings out an insight of the role of Higher Education, specially Management Education in the present competitive Global market, challenges and the opportunities faced by the B-schools to assure quality education.

KEYWORDS

Higher Education, Higher Education Forum (HEF), Management Skills, Corporate Expectations, Skill Gap, Quality Assurance etc.

INTRODUCTION

Education especially Management Education is facing many challenges from the skill development point of view. The lack of necessary specialties, low-education, low-consciences, sciences and technologies are extremely important problems in today's societies.

The high percentage of societies' population, especially poor societies, does not have access to education while the first step for society's development is specialty and skills. So, it is necessary for states to plan for education development, consciousness-raising and technical as well as professional skills development. Major issue, still the colleges of higher education across the globe faces is making provision of adequate vocational skills, with which the student's community get well better employability option from the corporate.

Management education is now under a confused stage of identifying what kind of approach that may be adopted for more employability option. Whether the institutions should follow typical knowledge based education or more skill based workability based education. The basic purpose of any business school is to impart the business aptitude and skill that ensure better professional skill development for employability. Getting employment after professional education is a must for the young graduates.

Here in this context, more than the students, the institutions from where the students graduated are more scrutinized and the reputation of the institutions get badly affect. In order to clarify, what kind of management education need to be impart by the business school, contemporarily it is, important to identify the expectations of the corporate on employability and the major hard and soft skills expected for workability. These skills are termed as survival skills for the students to get employment and retain the employment in the corporate. This particular article concentrates on the "*Evolution of Quality Assurance in Management Education Its Role, Challenges and Opportunities*".

ROLE OF MANAGEMENT EDUCATION

To meet the challenges of the 21st century countries like India need to modify thrust of Academic Institutions from being **centres of imparting information to the centres of creativity and excellence**. In the coming years, we expect to mould human beings according to the requirement of more useful human resource in growth-oriented, highly competitive and efficiency-based socio-economic system. To initiate and introduce changes in policy interventions are necessary.

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India's Education today, especially Management Education is at a tipping point.. Opportunities are abound, yet the challenges are unprecedented. As the Indian economy strives to grow at 90% + GDP, the higher education sector of India has to respond with dynamic changes to meet the escalating shortage of skilled and educated manpower. Students who want to be 'Industry-ready' are also demanding world class education in conventional as well as non conventional streams of Education.

"The illiterate of the 21st century will not be those who cannot read or write, but those who cannot learn, unlearn and relearn."

Alvin Toffler, the author of **Future Shock** and **The Third Wave** wrote about the importance of learning in the 21st Century and how the lack of learning skills will denote illiteracy. The definition he used has more meaning than ever in 1997 and can serve as a meter-stick for us as individuals and as organizations both in measuring our own concepts regarding the skills and in planning learning experiences.

Two types of policy interventions will be required to restructure our conventional system of education:

- a) Through making an integrated educational policy, like:
 - Re-analysis of contents of syllabi,
 - Revision of text,
 - Developing infrastructure, separately for early and higher learning,
- b) Through specific strategies action plan can be drawn to prepare individuals for the next century is the basic question to ponder like:
 - Commercialization of research products,
 - Establishing HRD consultancy,
 - Creating job market,
 - Developing a system of evaluation and management, understanding of workforce planning, and comfort with social networking and HR technology.

At the same time the supply-demand gap in Management Education and India emerging as a leading knowledge economy has led to the entry of private and foreign education providers imparting education through conventional, distance learning and online programs in the country.

In the context of free economy, business schools have a crucial role to play. It is obviously not a matter of calling into question business schools' obligation to provide their students with the necessary skills and abilities to become managers. But can this only happen through mechanisms aiming to recreate an artificial reality, to enable students to understand how a company works before they join?

In other words, doesn't the attempt to provide experience to students, who by their very essence do not have any, belong to an absurd approach whereby Sisyphus rivals a back-to-front Dorian Gray?

Should management courses content themselves with allowing their participants to benefit in three terms from experience worth ten years?

The major hidden risk is that students are thus prepared to reproduce consistently familiar situations, and too commonly used organisational configurations. Finally, in order to avoid this risk, business schools should ask themselves about their methods of preparing their participants to become innovators, leaders, creators, etc., to avoid participating in the identical reproduction of our societies.

In France, a slogan used by students in May 1968 was **"Live what you think, don't think what you live"**.

Evidently, globalization, which equalizes but also connects people, changes the stakes and the means. It is within this new context of a "global era" that this article tries to think of a means of changing business schools to (modestly) help change the world. Since the advent of the so called "global era", a number of elements related to society and business have evolved and / or changed. This state of affairs has generated several opportunities and risks for individuals and organisations at large.

WHAT THEY DON'T TEACH IN B SCHOLLS?

The current curriculum in Management Education does not teach students in facing the challenges in business environment. How to manage uncertainty and complexity are not taught in business schools. It merely teaches the concepts with case studies. It does not focus on the challenges arising out of rapid growing technology and the challenges involved in running an enterprise. (M S Rao, 2010) Management education denotes those activities traditionally conducted by colleges and universities that focus on developing a broad range of managerial knowledge and abilities.

Unquestionably, the major issue in Management Education is the curriculum offered in our Business schools and this concern has been labelled ***the competency movement*** (Wexley and Baldwin 1986). The traditional management education curriculum, as presently constituted, may not be adequately preparing individuals for the challenges they experience as professional managers (Pfeffer, 1977). Today one fundamental question comes, whether the curriculum of a business school can produce future leader of the corporation with required management skill to meet contemporary challenges.

A survey conducted in 2010 by the Higher Education Forum (HEF), has brought to fore the vast difference that has started to show between employer expectations and fresh MBA graduates on the job skills. The “Skill Gap Survey” as HEF terms it, was conducted to find out through systematic evaluation whether any gaps exist between employer expectations and skills displayed by newly hired MBAs.

Covering the Indian Banking, Financial Services and Insurance (BFSI) sector, the survey found that a large gap existed between the expectations of employers and what they actually were getting, especially when it came to skills like - listening, team work and collaboration in the fresh recruits.

They also were found below expectations in attitudes like – self motivation, self discipline, commitment and dedication. Their knowledge of the organizational processes, product solutions, services and consumer behaviour too was not up to the mark.

Similar findings were reflected in a report by the software industry group National Association of Software and Services Companies (NASSCOM), which declared 75 percent of Indian engineering students, to be unemployable. The report sent education experts across the country into discussion over what needs to be done, as many might be wondering now also.

Dr. A. K. Sengupta, Convener of HEF said

“If we churn out MBAs and engineers by the tons only to find them unsuitable for our own industry, it all seems quite meaningless. Such findings are clear reflection of the fact that somewhere down the line, the education system is unable to bridge the gap of expectations verses skills, while preparing the students for the industry and something needs to be done about this at the earliest.”

Director ISOS Manish Panchal and vice-president Westat India Vasudha Narayanan conducted the survey for HEF. It was released at the first annual meeting of the HEF, at the Welingkar Institute of Management. The theme of the meeting was 'Towards excellence in Higher Education'. Conducted between late November 2009 and January 2010, the study was carried out on only a small sample of the large BFSI sector. The data was collected from 74 organizations only and from 113 individuals in all. However, these 113 individuals included one human resource representative from each of the organizations along with 39 senior executives who directly supervise newly hired MBAs. The survey although limited, was successful in bringing to fore the lacking of the education system pretty well.

WEAKNESSES AND STRENGTHS IN PRESENT MANAGEMENT EDUCATION

As mentioned earlier, Management Education is facing many challenges from the skill development point of view:

Henry Mintz berg is one of the strongest critics of MBA degree. He found out many defects in the present management education system. The present system does not encourage entrepreneurial skills and abilities. It does not lay stress on ethical part of education. It is not able to inculcate or cultivate industry or sector specific skills. There are set of skills required for each sector, segment and industry. The inability to focus on the same became a major area of weakness.

Real Industrial problems are neither thought nor taught. It is not able to cater to Indian type of education and on the contrary, it began to believe in aping American method of education, which at times found to be highly irrelevant and superfluous. It does not focus on Total Productive Maintenance (TQM) where teams are forged and motivated to contribute their best without any egoistic considerations. It is devoid of multicultural experience. It is highly commercialized and commoditized.. It is like a shop where goods and services are offered in exchange for money.

The present Management Education survived for nearly five decades in India and struggling to expand beyond national and geographical boundaries. With the boon of rapid changing technology and communication, the educational system is undergoing drastic changes although the pace is slow. The students in B Schools develop the ability to network and grow fast. The alumni links serve as strong launching pad.

The 21st Century provides a fresh opportunity to think about the kind of world we want to live in. In this regard it is also time to think about the kind of workplace we need to establish or support in Asia in the coming decade. In today's employment frayed social fabric we are only beginning to address the complex human performance needs of people globally.

One organized force that has the potential to help shape the kind of changing workplace of the future will be employers' organizations. The impact that this force will have on positive change in the workplace will depend a great deal on the way employers' organizations (E.O.s) relate to other sectors in society and how well they will be able to adapt to the marketplace.

FILLING THE CRITICAL GAPS

There is a strong need to lay stress on the Indian-industry oriented Management Education. This does not mean to do away with the American methodology of concepts and teachings. What is now needed is global approach i.e. the combination of global and local approach.

Recruiting the faculty who possess diversified academic back ground, experience and expertise will bring quality of education as these people can combine their multiple skills learnt from academic field along with their industrial or business experience. Similarly industries must come forward to encourage the trainee management graduates to do project work in their organizations which will enhance competency and confidence.

The present management education refers to many case studies related to other countries. Although it is good to have a feel of the case studies of foreign land, there is an element of nativity lost in teaching. It is necessary to generate our own case studies and explain the concepts or topics with native examples for understanding and enhancing the qualitative education. It is like, when you in Rome do as Romans do, but not as Greece do. The need of the hour is to create global mindset in the minds of management graduates. Indian B schools must evolve its own tools and techniques in teaching and tune its B schools as the battlegrounds to create global management gurus. It is obviously not a matter of calling into question business schools' obligation to provide their students with the necessary skills and abilities to become managers; but can this only happen through mechanisms aiming to recreate an artificial reality, to enable students to understand how a company works before they join?

CONCLUSIONS

AICTE has a pivotal role to play in streamlining and overhauling Indian management education system with many checks and balances. Late Dhirubhai H Ambani and Laxmi Niwas Mittal have become corporate legends not by doing MBA but by business acumen and right application of available resources. MBA helps in enriching the minds of the business managers and leaders. MBA does supplement and does not substitute business acumen. Sound academic background with strong business and industry insights along with stimulated and simulated case studies can bring out best results in quality of management education in India.

MESSAGE

The best business managers and leaders can be created only by a successful synthesis of academic theory and business practice or industrial experience. The business education should be based on practical or simulated and effective case studies. If the educational infrastructure is sound then one can expect a strong superstructure in future. Imagine an India with a population of a more than a billion can produce how much number of Jack Welchs' and Peter F Druckers'.

Management Teaching Can Pursue One Or More of the Following Finalities:

Practical Finality

To introduce the company's mode of functioning, the main rules to which the company is subject, the principal rights and duties of employers and employees;

Cultural Finality

To enable an understanding of what is at stake in organizational theory and to take a critical approach in applying it;

Scientific Finality

To understand organisational phenomena and the company's objectives (concepts, statistical approaches, strategic research);

Professional Finality

To learn how to manage a business through more or less sophisticated techniques and models.

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MARKET STRUCTURE AND OWNERSHIP: A PANEL DATA APPROACH FOR A STUDY OF INDIAN BANKING SECTOR

Dr. Bhawna Rajput¹⁹ Dr. Anupama Rajput²⁰

ABSTRACT

The market structure of banking sector has a significant impact on the performance, consumers' welfare, economic growth and stability of an economy. The structural changes such as liberal entry norms for private and foreign banks, provisioning and prudential norms has transformed the market structure and level of competition of banking sector in India. The competition may be assessed using concentration of market share of banks in the system. The market concentration may not reflect the true competitive behavior of the banks. The study used the direct measure of competition of Panzar-Rosse H-statistic to evaluate market structure of banking system during the sample period of 1997-2006. The study found that the banking system is in the process of consolidation with more competition and faces monopolistic market structure. The private and foreign banks are found to be more competitive than public sector banks.

KEYWORDS

Herfindahl-Hirschman Index, Panzar-Rosse Model, Banking, Market System, Monopolies, Competitive Strategy etc.

JEL Classification: G21, D40, D50, L11

1. INTRODUCTION

The Indian banking system has undergone dramatic changes in the recent years caused by the increasing integration, liberalization of banking sector and technological progress. At the same time, the process of consolidation is being observed in the Indian banking market with mergers and acquisitions of banks. These structural changes have affected the level of competition in the banking industry and have important repercussion for market condition. The committee of financial system chaired by M. Narasimham advocated liberal entry of private and foreign banks provided they conform to the minimum start up capital and other requirements and the prudential norms with regard to accounting, provisioning and other aspects of operations. The distinguishing feature of Indian banking industry has been the relative dominance of public sector banks. Although with the entry of new private banks and foreign banks and consolidation, the dominant role of public sector banks in the recent past is being diluted. "The competition induced by the new entrants has clearly reenergized the banking sector in India as a whole; the use of new technology is now the norm, new products and services are being introduced continuously and new business practice have become common place" (Mohan, 2004). Further, the ownership in the public sector banks has been diversified that has helped to provide autonomy to these banks and is an important response to the competitive pressures. The present paper attempts to determine the degree and level of competition of banking sector as whole and effect of ownership on market structure of banks in India. The rest of the study is organized as follows. A review of the relevant literature is presented in Section 2, while Section 3 addresses theoretical framework of competition. In Section 4 empirical specification and data used in the study has been explained and measurement of variables. In Section 5, the estimation results and their interpretation are reported on and discussed, and finally, the conclusion and policy implications are reported in Section 6.

2. LITERATURE SURVEY

Number of studies has used the Panzar-Rosse method to measure the degree of competition in the banking sector. In recent years, significant number of research was focused on competition in the banking industry due to the fact that tendencies for liberalization, innovations and merger and consolidation of financial services sector have called for assessing the level of competition in the banking sector. The Panzar and Rosse (1987) model examines the relationship between a change in factor input prices and the revenue earned by a specific bank. H-statistic measures industry competition based on the elasticity of bank interest revenues to input prices. The approach analyses the transmission of changes in input prices to bank revenue.. (Bikker, Shaffer, & Spierdijk, 2009) study used a panel data set covering the period from 1986 – 2004 using data from 67 different countries .and shows that Panzar-Rose price or revenue functions used to measure the degree of banking competition, often in specifications controlling for firm scale or using a price equation. Moreover, even an unscaled revenue function generally requires additional information about costs, market equilibrium and market demand elasticity.

Wong et al. (2006) studied the evolution of competition in the banking sector of Hong Kong during the period 1991 to 2005 using the Panzar-Rosse method. The results showed that competitive pressure was higher among larger banks and lower among smaller banks. De Rozas (2007) used data reported by Spanish depositary institutions covering the period from 1986 – 2005. The study uses 92% of aggregate assets of credit institutions sector, and used the Panzar-Rosse methodology and has shown that the level of competition is higher than reported in the previous literature. Author has also reported that on the Spanish sample in case of large banks, the market gets close to perfect competition, and no apparent relationship between competition and market is found. Bikker & Haaf (2000) applied the Panzar-Rosse model to banks from 23 European and non-European countries for the years 1988-1998

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and reported that banking markets in the industrial world are mainly operating under monopolistic competition. They also find that competition and bank size are proportional and that in some countries the competition has increased significantly over time. Al-Muharrami (2006) analysed the market structure of the banking market of Saudi Arabia using data during the period 1993–2006. The Panzar-Rosse methodology results show that Saudi Arabia banking industry has a status of a monopolistic competition, and that the market is not highly concentrated as well as that it shows signs of concentration decline. Anginer et al. (2012) used data for 63 countries over 1997–2009 and found a positive relationship between competition and systemic stability. Prasad and Ghosh (2005) computed the Panzar and Rosse H-statistic of Indian banks using data of 64 commercial banks for the period 1997–2004 and found that the Indian banking market demonstrated a monopolistic competition. Mishra (2011) studied 75 banks classified by ownership public, private, and foreign over a period of 1997–2008 using two panel data sets each of 6 years and found that the Indian banking sector is characterized by monopolistic competition and that liberalization has helped improve its efficiency, productivity and stability. Ansari (2012) found that the Indian loan market was monopolistic and that public sector banks and private sector banks were more competitive than foreign banks. The present study provides additional insights of the market structure by ownership group of banks which generally is not studied in the earlier studies.

3. MARKET STRUCTURE & COMPETITION: A THEORETICAL FRAMEWORK

The literature provides two statistical approaches that involve level of activity to the measurement of competition viz. Structural approach (non- formal approach) and Non-structural approach (formal approach). Structural approach (non- formal approach) utilizes concentration ratios are used to analyze the market structure and competition levels. According to the structure- conduct-performance hypothesis, the more the concentration (i.e. fewer firms controlling more the market) in terms of level of business activity, the higher would be the market power used to establish the prices of output and so lower would be the competition and higher would be the profitability. This implies an inverse relationship between concentration and competition and with consumer welfare. Herfindahl – Hirschman Index (HHI) and M-Firm or Concentration Ratio (CR) are the commonly used concentration ratios. The literature suggests that the concentration ratios alone may not be sufficient to analyze competitiveness in the market. The contestability hypothesis suggests that even in the face of increased concentration, competitive behavior may be witnessed and collusive actions can be sustained in the unconcentrated market. Thus, the approaches with explicit information on the structure of the market are preferred. These approaches are referred to as formal or non- structural approach of competition as explained in the next section.

Non-Structural Approach (Formal Approach) provides the direct estimation of competition measures and may be uncorrelated with concentration i.e. competition could be present in the markets even with a relatively high degree of concentration. Bresnahan (1982) and Lau (1982) Model and Panzar and Rosse's (1987) H-statistic are the two widely used techniques to empirically measure the degree of competitive behavior in the market.

The study uses the Panzar and Rosse (hereafter PR model) to examine the relationship between a change in factor input prices and the revenue earned by a specific bank and to provide the direct measure of competition in Indian banking industry during the period of study using the sample data. This requires the estimation of a reduced form revenue function. For the i th firm in time period t , the reduced form revenue equation is given by specification as follows:

$$R_{it} = f(W_{it}, Z_{it}, Y_{it}, \varepsilon_t) \quad (1)$$

Where: R_{it} is the total revenue of a bank, W_{it} is a vector of factor prices, Z_{it} represents the variables that shift the cost function, Y_{it} is the variable that shifts the output function, ε_t is the error term.

In this case, $\partial R_{it} / \partial W_{itk}$ is the derivative of the total revenue with respect to the price of k th input, the PR H-statistic is then written as:

$$H = \sum [(\partial R_{it} / \partial W_{itk}) * (W_{itk} / R_{it})] \quad (2)$$

In equation 2 above H is the sum of elasticities of the reduced form revenue with respect to all the k factor prices. In other words, the statistic measures the percentage change in a bank's equilibrium revenue caused by a 1 percent change in all of the bank's input prices. The intermediation approach is used to define variables in the revenue equation, as it is more inclusive of total cost of banks.

4. EMPIRICAL SPECIFICATION AND DATA

The empirical strategy consists of estimating the following standard reduced form of specification:

$$\ln(TR) = c + a_1 \ln PL + a_2 \ln PF + a_3 \ln PK + a_4 \ln(CRAR) + a_5 \ln(Loan_asset) + a_6 \ln(Assets) \quad (3)$$

Where: TR = Total Revenue/Total Assets, Total Revenue= Interest Income+ Non-Interest Income PL= Price of labor =Personal Expenses/Total Assets PF= Price of Funds = Interest Expenses/Total Assets P_k =Price of physical capital = Other Operating Expenses/fixed Assets c = constant.

Using the Equation 3, $H = a_1 + a_2 + a_3$ (since we are using double log function so input price coefficient would represent the elasticity). The panel analysis is used to estimate this regression. In order to estimate the H-statistics total revenues rather than

interest revenues are chosen as the dependent variable (TR) to take account of growing other income of banks. The dependent variable is expressed as a ratio to total assets to abstract from size effects. As actual factor price data are not available, they are proxied by ratios of expenses to respective volume following the literature: funding costs are expressed as interest expenses divided by total funds (PF), wages are proxied by personnel expenses to total number of employees (PL), and for costs of fixed capital, the other operating expenses are divided by fixed assets (PK). The control variables have been introduced to take into account bank-specific features affecting its revenues and cost functions. The natural logarithm of total asset (*SIZE*) is considered as a proxy for bank size and for the aggregate demand. The ratios of capital to risk-weighted assets (*CRAR*) and the loan-to-total-asset (*LNAST*) ratios are included to account for firm-level risk and asset portfolio.

The use of linear panel regression analysis requires the choice of fixed and random effect model. The fixed effect model presupposes that the differences across units can be captured through the differences in the constant term V_i , which are considered fixed parameter to be estimated. In case of random effect model, the individual specific constant terms are randomly distributed across cross sectional units and are used when there is no priori reason to assume correlation between regressors and errors. In order to make a choice between the two sets of models, a Hausman test is conducted under the null hypothesis of no correlation between regressors and errors.

The rejection of null hypothesis in the Hausman test favors fixed effect model and its acceptance favors random effect model. One of the crucial hypotheses of the Panzar and Rosse model is that the banking sector is assumed to be in equilibrium. Following the existing literature the Equation 4 below is estimated, to carry out the equilibrium test E defined in Equation 5:

$$ROA = c + a_1 \ln PL + a_2 \ln PF + a_3 \ln PK + a_4 \ln (CRAR) + a_5 \ln (Loan_asset) + a_6 \ln (Assets) \quad (4)$$

$$\text{For equilibrium: } E = a_1 + a_2 + a_3 = 0 \quad (5)$$

Where ROA is the return on assets, which is the ratio of net income to total assets.

Equation 4 regresses return on assets on the independent variables specified in the Equation 3. The equilibrium test E is computed as a standard F-test, the intuition being that in equilibrium, returns on assets should not be statistically correlated with input prices. The pooled regression estimates are used to test equilibrium condition.

4.1 Interpretation of H-statistic

The PR H-statistic has a clear-cut interpretation when applied to the study of markets. H-statistic represents the percentage variation in the equilibrium revenue resulting from a unit percentage increase in the price of all factors used by the firm. PR depicts that in a collusive environment, assuming profit maximization; an increase in input prices will increase marginal cost and reduce equilibrium output and revenues.

For a monopoly, a perfectly colluding oligopoly, $H < 0$. The $H = 1$ for a natural monopolist operating in a perfectly contestable market, as well as for a sales maximizing firm subject to break-even constraints. Under perfect competition, an increase in input prices will increase marginal cost and marginal revenue by same amount and hence $H = 1$. A value of H between 0 and 1 indicates monopolistic competition where an increase in input prices will lead to a less than proportional increase in revenues, as the demand for banking facing individual banks is inelastic. In a symmetric monopolistic competitive market, $0 < H < 1$. It is worth emphasizing that not only is the sign on H important, but its magnitude is equally important (Panzar and Rosse, 1987). The main discriminatory powers of the H-statistics, as discussed in the literature, are summarized in the Table 1.

Table-1: Interpretation of H-Statistic

H-Statistic(Value)	Market Structure
If $H = 1$	Perfect Competition
If $0 < H < 1$	Monopolistic Competition
If $H \leq 0$	Monopoly or Perfectly Collusive Oligopoly
Equilibrium Test	
$H_\infty = 0$	Long run Equilibrium
$H_\infty \neq 0$	Disequilibrium

Sources: Panzar & Rosse (1982, 1987)

The study is based on 66 Banks for the sample period of 1997-2006. Of the total 66 banks, 27 banks are public sector banks, 24 private sector and 15 are foreign banks. The coverage of the study is quite comprehensive as these 66 banks on an average accounted for over 98% of the total deposits, 96% of the total assets and 79% of the branches of the commercial banking sector during this period. The major exclusions are the foreign banks with single bank branches as these banks accounted for an insignificant proportion of total banking sector assets and may bias results. The data is sourced from the relevant issues of Statistical Tables Relating to Banks in India, IBA Bulletin, and Report on Trends and Progress of Banking in India.

5. ESTIMATION RESULTS

The analysis of the unit price of funds, labor and capital respectively across bank groups shows that driven by the soft interest rate regime, the cost of funds has declined across bank groups. The unit labor costs have been particularly high for foreign banks. The unit price of capital has witnessed an increasing trend, being the highest for Public Sector Banks (PSBs). The starting point for the H- statistic analysis is to ensure that banks operate in their long run equilibrium phases, thereby implying that their returns should not be statistically correlated with input prices. The results of the equilibrium tests for the pooled data over the whole period are presented in the Table 2 below and a standard F-test is used to test the $H=0$ hypothesis.

Table-2: Estimation Results of Equilibrium Test with ROA as Dependent Variable (Pooled Regression) (1997-2006)

Independent Variable	Coefficient	Standard Error
In PL	-0.005***	0.002
In PF	-0.001	0.003
In PK	0.001	0.001
In (Assets)	0.002***	0.001
In (CRAR)	0.012***	0.002
In (Loans to Assets)	0.003	0.003
In (Interest to Other)	-0.009***	0.002
Constant	-0.013	0.01
H statistic	-0.0041	
F (7,652) test for $H=0$	22.73*** (0.000)	
F (1,652) test ¹	2.16 (0.142)	
Adjusted R-square	0.19	
Number of Banks	66	
Total panel Observations	660	

Sources: Author's Calculations

Note: ¹The F-Statistic of the equation (H_0 : All explanatory variables are equal to 0)

The results shows that the market equilibrium condition is not rejected at the 5 percent level over the whole period; therefore, the data appear to be in long-run equilibrium and the PR test can be meaningfully interpreted. Before estimating the PR model as specified by Equation 4 a descriptive summary of the variables is presented in Table 3. The results indicate that the bank size tends to display high variability. The price of the capital has tended to remain high, on an average, over the period. It may be due to the high operating expenses of banks, especially public sector banks. Finally, labor costs are cheap, with low variability, which is strength of the Indian banking system.

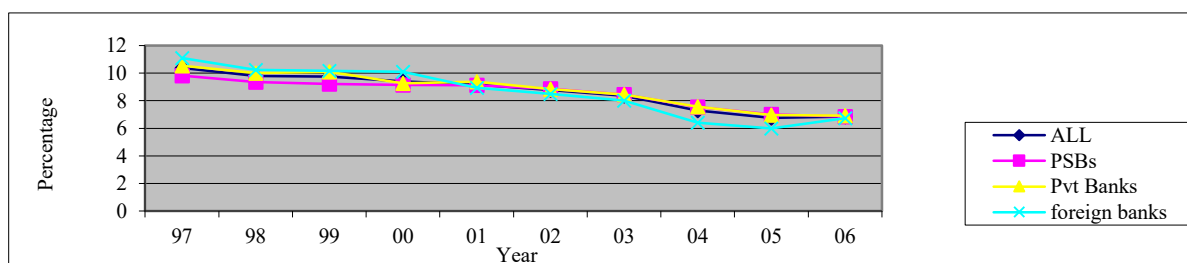
Table-3: Descriptive Statistics

Variable	Mean	Standard Deviation	Minimum	Maximum
In PL	0.824	0.583	-0.128	3.327
In PF	1.878	0.297	0.651	2.837
In PK	4.31	0.693	1.323	7.276
In (Assets)	8.762	1.474	4.594	12.681
In (CRAR)	2.484	0.428	-0.187	4.298
In (Loans to Assets)	-0.845	0.268	-3.078	-0.381
In (Interest to Other)	1.702	0.549	-0.698	5.134
Total Income _ Assets	2.325	0.195	0.963	2.916

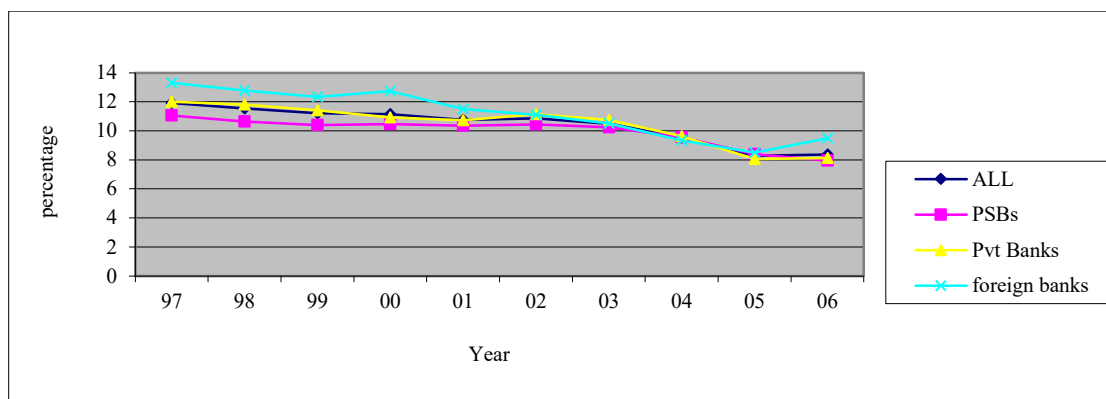
Sources: Author's Calculations

Graph 1 and 2 depict the share of interest revenues and total revenues as a percentage of total assets across bank groups. The share of interest revenues has recorded a continuous decline. It is notable that non-interest revenues of banks have been increasing significantly in recent years. The share of non-interest revenues as percent of total revenues for public sector banks doubled from a level of 8-10 percent in 1997 to percent by end-2006.

Graph-1: Share of Interest Revenues to Total Assets by Type of Bank



Sources: Author's Calculations

Graph-2: Total Revenues to Total Assets by Type of Bank

Sources: Author's Calculations

The panel regression for the entire period, 1997–2006 for all banks is estimated to measure H-statistic. The fixed effect model is used as Hausman Test rejects the null hypothesis of no correlation between regressors and errors. Table 4 reports the results of our econometric analysis. The estimates reveal that the estimated value of H is significantly non-negative. The F-test results indicate that H-statistic differs significantly from 0 and 1. The results suggest that for the observed period, the Indian banking sector is characterized by monopolistic competition according to the PR classification. The unit cost of funds (*PF*) has a positive sign and is statistically significant at the 1 percent level. Also PK turns out to be significant at the conventional levels (Table 4). The results indicate that, for the period 1997–2006, the price of funds provides the highest contribution to the explanation of total revenues (and therefore to the H statistic), followed by the price of fixed assets. All of the control variables that are significant except size and interest to other income have positive signs. Thus, bank size is negatively related to revenues, hinting size does not act as barrier to the new entry. The positive sign on the capital adequacy ratio suggests that higher capital enables banks to augment their total revenues. Of particular total income is the negative sign on the ratio of the interest to non-interest income. Economically, in an era of falling interest rates, the interest income of banks has been declining whereas their fee incomes have risen. This has lowered the ratio of interest to non-interest income. The lowering of this ratio has been associated with higher total revenues.

Table-4: Estimation Results of H-Statistics (1997-2006) with Log of Total Income as Dependent Variable

Independent Variable	Coefficient	Standard Error
In PL	-0.005	0.015
In PF	0.598***	0.015
IN PK	0.036***	0.01
In (Assets)	-0.056***	0.009
In (CRAR)	0.018*	0.011
In (loan to asset)	0.099***	0.017
In (interest to other)	-0.107***	0.008
Constant	1.763***	0.105
Diagnostics		
H statistic	0.63	
Hausman test	$\chi^2 (07)=38.04$ ***	
F (1,587) test for H=0	P-value= 0.0000	
F (1,587) test for H=1	703.67*** (0.0000)	
F-statistic ¹ (7,587) (p-value)	246.28*** (0.0000)	
F-statistic ² (65,587) (p-value)	454.53*** (0.0000)	
R ² Within	11.55*** (0.000)	
R ² Between	0.844	
R ² Overall	0.334	
Number of Banks	0.627	
Total Panel Observations	66	
	660	

Sources: Author's Calculations

Notes: ¹The F-Statistic of the equation (H0: All explanatory variables are equal to 0 2. The F-test that all $V_i = 0$

*** Significant at 1% level of significance.

The results are also estimated for the different groups of banks. The H-statistics for each bank group is calculated for the entire sample period. Table 5 indicates that for public sector banks, the contribution of the price of funds to the H statistic is the highest, followed by the price of labor.

For the other bank group, the price of funds makes the most significant contribution to the H statistic and price of labor is insignificant. This is intuitive since the large labor in public sector banks and the consequent high wage bill is an important factor affecting the H-Statistic. CRAR is a dominant concern for all domestic banks as the coefficient is positive; the coefficient is negative for foreign banks suggesting that capital adequacy is not a major concern for foreign banks, given their host country backing. In terms of magnitudes, the H statistic is higher for the private and foreign bank group as compared to the public sector group; in all cases, however, these values are significantly different from 0 and 1.

**Table-5: Bank Group-Wise Estimation Results of H-Statistics (1997-2006)
With Log of Total Income as Dependent Variable**

Independent Variable	Public Sector Banks		Private Sector Banks		Foreign Banks	
	Coeff.	S.E.	Coeff.	S.E.	Coeff.	S.E.
In PF	0.483***	0.021	0.65***	0.02	0.546***	0.037
In PL	0.083***	0.018	0.028	0.024	-0.011	0.036
IN PK	0.003	0.011	0.057***	0.014	0.023	0.023
In (Assets)	-0.2***	0.018	-0.057***	0.01	-0.065**	0.03
In (CRAR)	0.055***	0.009	0.023*	0.013	-0.075*	0.042
In (loan to asset)	0.115***	0.027	0.065**	0.031	0.071**	0.036
In (interest to other)	-0.145***	0.01	-0.108***	0.01	-0.092***	0.022
Constant	3.563***	0.206	1.469***	0.123	2.156***	0.305
H statistic	0.567		0.735		0.558	
Hausman est	χ^2 (07)=106.01*** P-value= 0.0000		χ^2 (07)=39.17*** P-value= 0.0000		χ^2 (07)=21.55*** P-value= 0.0030	
F test for H=0	F (1,236)=437.59*** (0.0000)		F (1,209)=413.19*** (0.0000)		F (1,128)=110.13*** (0.0000)	
F test for H=1	F (1,236)=254.06*** (0.0000)		F (1,209)=54.3*** (0.0000)		F (1,128)=69.11*** (0.0000)	
F-statistic ¹ (p-value)	F (7,236)=383.31*** (0.0000)		F (7,209)=300.82*** (0.0000)		F (7,128)=67.14*** (0.0000)	
F-test ² (p-value)	F (26,236)=12.31*** (0.0000)		F (23,209)=7.73*** (0.0000)		F (14,128)=7.82*** (0.0000)	
R ² Within	0.919		0.909		0.786	
R ² Between	0.386		0.713		0.007	
R ² Overall	0.466		0.843		0.463	
Number of Banks	27		24		15	
Total Panel Observations	270		240		150	

Sources: Author's Calculations

Notes: ¹ The F-Statistic of the equation (H_0 : All explanatory variables are equal to 0). The F-test that all $\nu_i = 0$

***Significant at 1% level of significance

**Significant at 5% level of significance

*Significant at 10% level of significance

S. E. - Standard Error.

6. CONCLUSIONS

The results reject the monopoly and perfect competition hypotheses and support the proposition that Indian banks earn their revenues as if under monopolistic competition, a feature of banking structure in developed countries and other emerging markets. These results suggest that the firms set their prices close to the competitive levels. The degree of competition is higher for foreign and private bank group than for the public sector banks. The study provided the evidence that public sector banks are insulated by external competition and are supported by Government. The private and foreign banks are facing the competitive market. Overall, the results validates of monopolistic competition market structure during the period under study suggests that the recent trends toward consolidation led to more rather than less competition in the banking sector.

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INFORMATION TECHNOLOGY: AN EVALUATING PARAMETER ON EXCELLENCE IN HIGHER EDUCATION

Hardeep Singh²¹ Bikram Pal Singh²²

ABSTRACT

In general, learning is a continual process which is so normal to human kind. Education is nothing but regularization and formalization of this normal process of learning. However, traditional education system lays emphasis on teaching only in which the evaluating parameter is only memorization. In case of higher education, information and knowledge are important but these are not enough the evaluating parameters on its excellence.

In the present scenario of globalization and modernization, information technology expands the vision of higher education and considered as a pillar in the framework of modern higher education development. The role of information technology in higher education is apparent in all spheres (not just technologically) by responding to the numerous and varied opportunities for using information and knowledge creatively and productively and therefore become an evaluating parameter on its excellence.

KEYWORDS

Education, Excellence, Information, Technology, Knowledge, Learning, Parameter etc.

INTRODUCTION

Recent trends in higher education have increased the attention given to the quality of the teaching offered to the students. First, the advent of mass higher education in the 1960s and even more so in the 1980s produced a shift in the conception of the role of universities. It questioned the nature of the relationship between teaching and research. In fact, according to Coaldrake and Stedman (1999), until the late nineteenth century, teaching was the major function of universities. But because of the expansion of the higher education sector, the importance of teaching is now being reexamined and reassessed. Second, changes in the funding structure of many universities also increased the focus on the quality of teaching.

Moreover, higher education is increasingly seen as an investment that should contribute to national prosperity in the long term. Quality assurance in higher education has also become a focus of attention for private universities. Students - who are increasingly paying tuition fees - might now be considered as “clients” of higher education institutions. Students are therefore also very concerned about the quality of the lectures they pay for. As the “culture of higher education” has become “increasingly market-oriented”, external demands for quality of teaching have increased. The student body itself has changed considerably since the 1960s, hence modifying expectations regarding teaching. To begin with, in most developed countries, increasing social diversity has transformed the student body at university level.

Higher education is no longer reserved to the elite. Since Internet has globalised the market place therefore institutions are increasingly competing for the best students, nationally and internationally. Many professors are now teaching international students, and consequently must develop new pedagogical strategies. Teaching methods for higher education have also evolved. Professors who wish to incorporate aspects of on-line learning need to become familiar with new pedagogical methods. Distance education in print form is being supplemented by Internet – based delivery. Mixed modes of learning have become common: the majority of cross-border distance programmes now involve some form of face-to-face pedagogical or administrative contact, sometimes visits to study centres. Generally people in remote locations and working adults are the first to experience these new forms of learning.

Vocational training institutions, which prepare learners for careers that are based on practical activities, are no longer shun. They are now fully considered as an important part of most higher education systems. Lifelong learning now offers a second chance to those for whom the knowledge and skills acquired in school are no longer sufficient for a professional career spanning three or four decades. As globalization continues, the national and international competition for the best students is likely to increase among higher education institutions, thus only reinforcing pressure for Quality Teaching and quality assurance. It is likely that international rankings based on the quality of teaching will be set forth, thus reinforcing the attractiveness of quality initiatives.

Moreover, there are more and more students who study at various universities, benefitting from opportunities like international scholarships. These students are likely to compare the quality of the teaching received at these different institutions.

With rapid developments in information technology (IT), most university students demand more use of IT in their higher education for two main reasons:

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- It helps the course material be presented in a more comprehensible way;
- It gives them familiarity with the high-tech tools they might be expected to use in their future careers after their higher education.

Some universities have already started making changes to their curricula and making arrangements to be more inviting to students by introducing new methods of higher education such as field trips to big companies, and inviting representatives from such companies to give seminars as part of the curricula so that the students are exposed to practical career scenarios.

MEANING OF INFORMATION TECHNOLOGY

Humans have been storing, retrieving, manipulating and communicating information since the Sumerians in Mesopotamia developed writing in about 3000 BC, but the term "information technology" in its modern sense first appeared in a 1958 article published in the *Harvard Business Review*; authors Leavitt and Whisler commented that "the new technology does not yet have a single established name. We shall call it information technology (IT)." Based on the storage and processing technology employed, it is possible to distinguish four distinct phases of IT development: pre-mechanical (3000 BC – 1450 AD), mechanical (1450–1840), electromechanical (1840–1940) and electronic. This article focuses on the latter of those periods, which began in about 1940.

Information Technology (IT) is a branch of engineering dealing with the use of computers and telecommunications equipment to store, retrieve, transmit and manipulate data. The Information Technology Association of America has defined IT as "the study, design, development, application, implementation, support or management of computer-based information systems". The term is commonly used as a synonym for computers and computer networks, but it also encompasses other information distribution technologies such as television and telephones.

OBJECTIVES OF STUDY

- To check the awareness about role of IT for creating excellence in higher education in the present scenario of globalization.
- To make professionals familiar with role of IT for creating excellence in higher education as a result of globalization.
- To excite awareness about role of IT for creating excellence in higher education in the present scenario of globalization.

RESEARCH METHODOLOGY

Research methodology used during the study conducted in this research paper is based upon real data. To conduct this study, exploratory qualitative approach was in practice. Theoretical frame work was developed from the literature, data collected from the multiple sources of evidence in addition to books, news papers, journals, websites and other professional magazines. A series of interviews (Personal Interviews and Telephonic Interviews), not discussed in this paper, were conducted with experts of organizations.

The case study data helped refine the meaning, definition, major players, benefits, need and success factors that companies indicated important in their move to commence. The study examines major aspects concerned with the role of IT for creating excellence in higher education in the present scenario of globalization. The data for study was collected from the experts. This study is based on primary as well as secondary data. Specially framed questionnaires and interviews (not discussed in this paper) with Professors and Principals of well established engineering colleges have been used for survey purpose. Additionally, some support personnel (students of B.Tech, M.Tech. and MBA) were also considered.

IMPORTANCE OF INFORMATION TECHNOLOGY IN HIGHER EDUCATION

On a very fundamental level, information technology is simply another way of saying "higher education." Ever since oral traditions were committed to writing in cuneiform, master teachers have looked for ways to commit their hard-earned information to some form of permanent information storage system, from monks diligently copying ancient manuscripts to Internet-based "cloud computing." Progress, convergence, and integration in information technology have driven fundamental change in the information technologies as faculty, students, colleges, and universities have or might be expected to acquire.

For years there has been concern about a "digital divide" between those who have ready access to information technology—especially the broadband Internet—and those who do not. The concern, as with other social and economic resources, has been that those already ill served by society would have less access to technology, and therefore would be left behind as technology became more important. We can reasonably make the following assumptions today about information technology in higher education:

- College and university faculty and administrators are comfortable with institutional information technology, such as student records or learning management systems.
- Electronic interaction within campus communities is commonplace and effective, whether by email, instant message, social media, chat rooms, or other media.
- Classrooms are equipped with appropriate technology, although this varies with institution and classroom type.
- Most college and university course materials are in electronic form, and so is most library and reference material used by the typical student.

- Computers, servers, and other hardware have become quite inexpensive, so that the primary costs of information technology now are dominated by software licensing and technical staffing.

WHY INFORMATION TECHNOLOGY IN HIGHER EDUCATION?

One of the most recent and fastest growing needs in education is to eliminate location, transportation, classroom space, and time restrictions. In developed countries such as the United States, the transportation problems are rare but the distances traveled are huge. In developing countries the distances are short but the transportation is difficult. Either way, in most cases, traveling takes a big portion of the day for students. Moreover, especially for higher education when the students are more independent of their families, they need to work to earn for their living expenses and even to support their families, it is not feasible to ask them to come to the college during the day time when they are supposed work and make money.

Thus, distance learning process is an alternative for that. Some argue that distance learning is a technology looking for a problem. Many argue that face-to face is a requirement and cannot be eliminated. Others argue there are major problems with face to face education; other than above mentioned time and place restrictions, it also puts the responsibility of learning more on the shoulders of the student himself/herself, rather than as some do: coming to the classroom and just listening, if listening, to the instructor and expecting him to teach everything about the course to all the students in the classroom.

Distance learning resolves conflicts with other classes. The student is free to download the recorded lectures and study them at their own pace. If a student misses a lecture due to sickness, traffic, etc, the lecture is available on the web. Some students just like to repeat the lecture that is made available on the web to reinforce their learning. Some may like to listen to the lecturer and do not take any notes in class not to lose focus because the lecture will be on the web anyway. Moreover, distance learning allows greater access to those who are restricted geographically.

INFORMATION TECHNOLOGY: LOOKING AHEAD

How will technology evolve over the next few years? Specific predictions mostly fail, but generalities do better. For example, these were IBM's "5 in 5" predictions in 2006 for 2011:

- We will be able to access healthcare remotely, from just about anywhere in the world.
- Real-time speech translation—once a vision only in science fiction—will become the norm.
- There will be a 3-D Internet.
- Technologies the size of a few atoms will address areas of environmental importance.
- Our mobile phones will start to read our minds.

Today we have nearly real-time translation through services like Google Translate, there is some 3-D Internet, and healthcare information and advice are accessible remotely through information technology.

Here are IBM's 2011 predictions for 2016:

- **Energy:** People power will come to life. Imagine being able to use every motion around you—your movements, the water rushing through the plumbing—to harness energy to power anything from your house to your city.
- **Security:** You will never need a password again. The use of your retinal scan or your voice as a passport to verification will replace multiple passwords for access.
- **Analytics:** Junk mail will become priority mail. Imagine technology that replaces the unwanted messaging in your life with the next best thing to a personal assistant.

These predictions sketch a world where the locus of technology has shifted dramatically from the institution be it home, workplace, school, college to the mobile individual.

Information technology can promote progress by enabling administrative processes to become more efficient and/or by creating diverse, flexible pathways for communication and collaboration within and across different entities. Making administrative processes more efficient in this way is organizational technology. Although organizational technology is very important, it affects higher education much the way it affects other organizations of comparable size. Somewhat more distinctively, information technology can function as learning technology and thereby become an integral part of the teaching and learning process involved in the higher education. The basic infrastructure already exists to enable colleges and universities to reach, teach, and assess students and to streamline administration. Infrastructure includes not only core hardware, software, and services but also key organizational processes—such as identity management and security—without which information technology cannot function. Through what applications might information technology infrastructure help higher education evolve?

Streamline Administration

Higher education involves the administration of human resources, scheduling, financial transactions, and physical plant. But administration in higher education also conveys academic resources to faculty and students, and it collects, describes, and indexes data that document student experience. Information technology reduces redundancy, eliminates roadblocks, and maximizes access.

Amplify and Extend Traditional Pedagogies, Mechanisms, and Resources

Storing and distributing materials electronically, enabling lectures and other events to be streamed or recorded, and providing a medium for one-to-one or collective interactions among faculty and students potentially expedite and extend traditional roles and transactions. Similarly, search engines and network-accessible library and reference materials vastly increase faculty and student access.

Make Educational Events and Materials Available Outside the Original Context

As materials become electronic, barriers to broader distribution shrink. As barriers shrink, it becomes possible for materials to find new uses beyond their original intent. That educational materials should be reusable outside their original context which seeks to move from a production model based on copyright and licensing to one based on shared investment and benefit.

Enable Experience-Based Learning

The principal information technology for experience-based learning is simulation. Simulated chemistry laboratories or factories were an early example, students could learn to synthesize acetylene by trial and error without blowing up the laboratory, or fine-tune just-in-time production processes without bankrupting real manufacturers. As computers have become more powerful, so have simulations—which include many computer-based games become more realistic. As they have moved to cloud-based servers, multi user virtual environments have emerged. These go beyond simulation to replicate complex environments - indeed; sometimes they simply are complex environments. Somewhat less purposively, as social media like instant messaging, Facebook, LinkedIn, Second Life, Research Gate and Twitter have enabled geographically scattered communities to grow and flourish, so have faculty and student experience-based learning jumped beyond campus boundaries. This, in turn, entails faculty advising and guiding inquiry rather than (or, more likely, in addition to) providing direct instruction. Students, in turn, must learn to tell the difference between valid and invalid experiences, reliable and unreliable sources, and accurate and inaccurate simulation.

FINDINGS

- Information Technology (IT) has been growing rapidly in higher education institutions.
- The new technology allows the universities to connect to the international scientific community and take part in the global knowledge society.
- Now days, IT is also playing an important role in the developing of economy, governance, business and education.
- Higher education stakeholders want and need comparative, longitudinal, high-quality information about students, institutions, and institutional performance that is easy to get and to use.

CONCLUSIONS

One of the most foreseeable visions for the modernization and standardization of higher education lies within information technology in which international mobility; global comparison, benchmarking and ranking are key policy themes. A generation of new teachers in the field of higher education will soon come in to replace the baby boomers when the later retire. These new teachers will have grown up with the Internet and will have a renewed vision of what good teaching is.

Therefore, all higher educational institutions should develop a coherent response to consider information technology as an important parameter on excellence in higher education.

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SUSTAINABLE DEVELOPMENT OF E-COMMERCE THROUGH DIGITAL RIGHTS MANAGEMENT

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ABSTRACT

Strong encryption is an urgent need for e-commerce development, since it allows the privacy and secure transactions of the financial and other data. International regulations must support the spreading of e-commerce and the associated encryption techniques in order to establish a secure e-commerce environment that customers can trust and develop faith in international deployment of ecommerce solutions without restrictions.

In the present paper, a pricing and license model for the fair use of the digital contents is proposed suitable for today's digital environment. Protection by way of Digital Rights Management (DRM) systems is emerging as a natural solution because it remains in force wherever the content goes. In contrast, a file that sits on a server behind the server's access control mechanism loses its protection once it is moved from the server.

The meaning of the term "DRM" has been used so far in its most narrow sense and no longer reflects many of the recent developments in the technology used to manage copyrighted works in the digital age. The efforts made for a secure DRM approach for the secure content transactions over digital environment using latest technologies has been reviewed in the present paper to advocate finally for the most acceptable DRM architecture supporting audio, video, text, XML and other popular applications file formats to serve the dynamic needs of the market optimally.

KEYWORDS

DRM System, Architecture, Digital Signature, Encryption Method, Security, Content Access etc.

INTRODUCTION

Piracy of online copyrighted works poses real threat to the creators and distributors of content. At the same time, technological and regulatory proposals to protect copyright have raised difficult questions about potential impacts on competition, innovation, public values, and consumer uses of copyrighted contents. Digital Rights Management technology offers great promise in protecting content and supporting new business models. However it is also characterized with great peril in exacerbating these potential impacts. Digital rights management (DRM) is a generic term for access control technologies that can be used by hardware manufacturers, publishers, copyright holders and individuals aiming to impose limitations on the usage of digital content and devices. The term generally doesn't refer to other forms of copy protection which can be circumvented without modifying the file or device. It can also refer to restrictions associated with specific instances of digital works or devices. Digital rights management is being used by companies such as Sony, Apple Inc, Microsoft, AOL and the BBC.

DRM is a collection of technologies that enable technically enforced licensing of digital information. A well designed DRM system provides- Governance – implementation of control or governance by the use of programming language methods executed in a secure environment, Secure association of usage rules with information in complex Copyright domain – Rules can be attached to content, embedded within content or can be delivered independently of content, by way of Persistent Protection using Cryptographic technique etc. DRM enables content providers to create licenses as per the agreement of the customer rigidly enforcing the use of existing content as per agreed conventions e.g. European Privacy Protection etc. There are several technologies and solutions that have been created to deal with business models and objectives.

The DRM market attempts at standardization by way of the rights specification language XrML (extensible rights Markup Language) and the ICE (Interchange Content Exchange) protocol. Proprietary solutions are usually obscure, and they do not specify what technologies are used, or how the protection of content and the usage control are made. Proprietary solutions include specific solutions to define formats and business models, and large scale solutions can be used with several formats and business models.

RELATED WORK

Digital Right Management system was early developed as Content Scrambling System (CSS) and employed by the DVD Forum on films DVDs since 1996. CSS is implemented in simple encryption algorithm and required device manufacturers need to sign license agreements that restrict the inclusion of features, such as digital outputs that could be used to extract high-quality digital copies of the film, in their players. Another Application of the DRM is used in the Operating System of Microsoft and other similar profile companies. Microsoft's Windows Vista contains a DRM system called the Protected Media Path, which contains the Protected Video Path (PVP). PVP tries to stop DRM-restricted content from playing while unsigned software is running in order to prevent the unsigned software from accessing the content. Additionally, PVP can encrypt information during

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transmission to the monitor or the graphics card, which makes it more difficult to make unauthorized recordings. Advanced Access Content System (AACS) is a DRM system for HD DVD. Blu-Ray Discs developed by the AACS are used by the Licensing Administrator, known as LLC (AACS LA), a consortium that includes Disney, Intel, Microsoft, Matsushita (Panasonic), Warner Brothers, IBM, Toshiba and Sony. Windows Media DRM is a Digital Rights Management service for the Windows Media platform. It is designed to provide secure delivery of audio and / or video content over an IP network to a PC or other playback device in such a way that the distributor can control how that content is used. License distribution servers. In his proposed architecture of the DRM in the published paper "A Self Local License Digital Rights Management System by Mohsen Sharifi", he defines the access of protected content by the user.

The architecture controls all owner rights in the client side including all desired data usage limitations and distribution. It works like a transparent file system and all file system requests are redirected towards DRM system before other file system or operating system receives that file system. After receiving the file request it will recognize the file by an application. The target Application Recognizer is required to have a license for access of the data protected by the DRM and License manager is responsible for managing the protected data file system. Now License manager passes the requests and related licenses are granted by the Encryption / Decryption Manager who sends request packages to file system layers of the relevant operating systems. It also does the encryption / decryption of the received request packages to be delivered to the target application.

APPROACHES OF THE DRM ARCHITECTURE

There are different approaches followed for Digital Rights Management for different purposes with appropriate security measures for different kinds of the contents. Digital Rights Management systems for some specific models are described below with an aim to illustrate the various points of their architecture.

Proxy Architecture for DRM service

Proxy architecture has been developed for the proxy applications as per the request of the user for accessing the content of the server. Request file creates the DRM request and sends it to the proxy file. After verifying over the request successfully, proxy file creates and sends the proxy DRM request to the server. The "Proxy DRM Request" can contain the whole "DRM Request" as an element or contain relative elements picked up from the "DRM Request". Similarly service request flow continues for other DRM request with the server. The main idea behind the DRM application is to build up and to deliver effectively the trust mechanism since the Service Server should control the risk from all the devices that could access the service or content. It should be a trusted proxy mechanism for controlling all flows.

Digital Content Distribution Management Architecture (DCDMA)

There are three ways by which we can describe the DRM architecture. These are by way of the content server, the license server and the client [10]. The Digital Content Distribution Management Architecture (DCDMA) consists of the entities like the Client Entity, the Authentication Entity, the Content Entity, the License creation entity, the Distribution and Management Entity and the Authorization and Rights Distribution Entity. All above mentioned different modules work together for Digital Content Distribution Management Architecture (DCDMA) and provide a secure content access to the request client.

SUN Architecture- DREAM

The Dream architecture for the management of the digital rights is an open source architecture which works in all equipments. There are different modules for the different processes in the architecture. These include modules for Acquisition, Content Processing, Digital Asset Management, Distribution and Consumption. The packaging process involves combining content data/files with associated metadata and creating logical packages that include the defined business rules. The content used by the user must be specified by the license server which is generated by the user. Protected content and the associated keys/licenses must be distributed to the clients. The terms of usages are specified in the license in the machine readable language such as XML, or its any variant.

DRM ARCHITECTURE AND THEIR EFFICIENCY

Windows Media Rights Manager Architecture (WMRM) is a commercial architecture and developed by Microsoft. It provides a license for storage by due encrypting the digital data with a key separately. Other is Core Media Architecture which is Multi – DRM Architecture and supports the standards like OMA DRM and Windows Media DRM. SUN Architecture-DREAM is open source architecture and it helps on management of the digital rights which works in all equipments. In the packaging process, it combines the content data or files with associated metadata and crates logical packages that include the defined rules.

ACCEPTABLE DRM ARCHITECTURE

Digital Rights Management standard Architecture consists of the Creation, Distribution, and Consumption of the digital contents. Above mentioned architectures are mostly based on owner file formats and these formats are generally for audio and video files. In the latest acceptable architecture of the DRM, the DRM Adaptable Architecture (DRMAA), it is proposed to support file formats like audio, video, text or other applications. The licenses can be used according to context and in a dynamic manner. The client or user has the choice to associate the license with the equipment, the reading software or with its digital identifier

according to his / her needs. This architecture has many modules. The user module starts the procedure for consumption. Thereafter the producer authenticates the consumers. License server could be static or dynamic in nature and is associated with the user and / or the equipment and/or the player. The Content after being packaged is put on the distribution server. The contents may not be limited to audio and video files only. It could be XML, text or other applications also.

CONCLUSIONS

The various Digital Rights Management Architectures currently in the market have been reviewed in this paper. These are generally designed for the audio and video file formats which work mostly for static licenses. They are yet to cover the market dynamism. Limitations in this regard are sorted out in the acceptable DRM architecture which also support the XML, text and application file formats through the dynamic license authentication server for the needs of the dynamic market. It gives the user choice to associate the license with its digital identity, the equipment or the software of reading according to the needs of the consumer.

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HARNESSING WORK: FAMILY LIFE BALANCE AMONG TEACHERS OF EDUCATIONAL INSTITUTIONS

Meenu Goyal²⁵ Sarita Arora²⁶

ABSTRACT

The two focal points in adult life are family and work. A better balance between work and life is an issue for everyone, not just for those with caring responsibilities. Work-Family Life Balance does not mean an equal number of hours for each of your various work and personal activities. It is defined as an individual's ability to meet their work and family commitments, as well as other non-work responsibilities and activities. In addition to the relations between work and family functions it also involves other roles in other areas of life. It includes proper prioritizing between "work" (career and ambition) on one hand and "life" (health, pleasure, leisure, family and spiritual development) on the other.

This issue gained importance because of changing trends in both family and working place in the form of increase in participation rate of working women and working mothers, rise in dual career couples, increase in number of single-parent families and increase in the elderly population. Flexi-timing approach, work- redesign, child care facilities, education facilities etc. are factors helping in balancing work commitments. In this paper, we aim to measure the impact of work pressure on family commitments and the impact of family expectations on work performance. A structured questionnaire was framed and has been filled by 120 teachers of different educational institutions.

The study reveals that various factors like negative attitude of family, health issues, uninvited guests, family emergencies & events, long working hours, meetings/training after office hours, extra work load affects the work life Balance. Simple changes can make all the difference to all employees trying to balance their personal and working lives more successfully. It's a win win situation for all concerned as the best work-life balance is different for each of us because we all have different priorities and different lives.

KEYWORDS

Work Pressure, Family Commitments, Work Performance, Family Expectations, Work Family Conflict etc.

INTRODUCTION

The role of work has changed throughout the world due to economic conditions and social demands. Originally, work was a matter of necessity and survival. Throughout the years, the role of "work" has evolved and the composition of the workforce has changed. Today, work still is a necessity but it should be a source of personal satisfaction as well. Work-Family Life Balance does not mean an equal number of hours for various work and personal activities. It is defined as an individual's ability to meet their work and family commitments, as well as other non-work responsibilities and activities.

In addition to the relations between work and family functions it also involves other roles in other areas of life. It includes proper prioritizing between "work" (career and ambition) on one hand and "life" (health, pleasure, leisure, family and spiritual development) on the other. Work-life balance is defined as an individual's ability to meet their work and family commitments, as well as other non-work responsibilities and activities.

Work life balance, in addition to the relations between work and family functions, also involves other roles in other areas of life. Work-life balance is a broad concept including proper prioritizing between "work" (career and ambition) on one hand and "life" (health, pleasure, leisure, family and spiritual development) on the other. Work-life balance means different things to different people and different things at different stages of life. However, any definition for anyone must include the problems of lack of time and exhaustion.

Work family imbalance occurs when the demands of work are in disharmony with the demands of family. Work family conflict can be time based, strain based and behavior based. Time based conflict arises when the amount of time devoted to work role interferes with performing family related responsibilities or vice versa. Strain based conflict occurs when strain from one role makes it difficult to perform in another role. Behavior based conflict occurs when the behavior in one role is not compatible with the behavior that is necessary for other role.

Research indicates that failure to achieve the correct balance of effort and rest is linked to a feeling of lack of control over the workload, plus lack of energy to fulfill personal goals and commitments. If the balance is wrong, the result may include fatigue, poor performance and a poor quality of life.

Many families around the world are stressed when trying to balance work and family priorities. Personal growth is an important factor in finding a life purpose that can sometimes be obscured by the responsibilities of everyday life. For many employees

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today—both male and female—their lives are becoming more consumed with a host of family and other personal responsibilities and interests. Therefore, in an effort to retain employees, it is increasingly important for organizations to recognize this balance.

REVIEW OF LITERATURE

Work-life balance has been defined differently by different scholars. Greenhaus (2001) defined work–life balance as satisfaction and good functioning at work and at home with a minimum of role conflict. Felstead *et al.* (2002) defines work-life balance as the relationship between the institutional and cultural times and spaces of work and non-work in societies where income is predominantly generated and distributed through labor markets. Work life balance is not balancing one's work with one's family, it means balancing one's work with life. Your life includes your family; it is not your family. Your life includes you, your health, spiritual evolution, mental vigor, attitude and tenacity, social pressure, friends and your family (Priya Kumar,2012).

Scholars defined life balance as fulfilling the demands satisfactorily in the three basic areas of life; namely, work, family and private. Work demands work hours, work intensity and proportion of working hours spent in work. Additional work hours subtract from home time, while high work intensity or work pressure may result in fatigue, anxiety or other adverse physiological consequences that affect the quality of home and family life (White *et al.*, 2003). Family demands include such subjects as the roles of the individuals (e.g. Father, mother, etc.,) family responsibilities (e.g. childcare, house chores, etc) looking after the old members, children.

Besides this, there are some other demands in work life balance than family and work live- relaxation, vacation, sports and personal development programmes. Work –life balance is not the allocation of time equally among work, family and personal demands. In literature, it is also emphasized that work-life balance is subjective phenomenon that changes from person to person. In this regard, work-life balance should be regarded as allocating the available resources like time, thought and labor wisely among the elements of life. While some adopt the philosophy of 'working to live' and sees work as the objective, others consider "living to work" and situated work into the centre of life.

According to psychotherapists and trainer-consultants in personal growth, human beings do not have just one drive, but many drives and needs. In order for them to have a sense of well being, these needs are to be met adequately. Work is important and it gives a lot of meaning in life, but one must always remember that life is bigger than work. When our lives are only about work, other needs will not be met which results in frustration. When work-life balance is not maintained, a person begins to experience sense of emptiness and hollowness which is difficult to deal with. In addition, relationships take a beating and the person begins to experience loneliness, depression, despair and cynicism. (Delecta, P, 2011) If one has managed to allocate the required time for every aspect of life duly and not to reflect the problems in one part of life to another it means that he has been able to achieve work-family balance. (Delecta, P.)

Life as a whole is composed of many other aspects along with work. Those who have achieved a balance among these aspects are sure to achieve the life balance, which does away with any imbalance.

OBJECTIVES OF STUDY

The study is undertaken with the following objectives:

- To study the impact of work pressure on family commitments.
- To study the impact of family expectations on work performance.

RESEARCH METHODOLOGY

The paper is primarily based on studying the impact of work pressure on family commitments and impact of family expectations on work performance. For the said objective, primary data was collected restricted to Ludhiana district only. A sample of 120 teachers of different educational institutions of Ludhiana region was collected through convenience sampling. The instrument used to collect the primary data was structured questionnaire.

The questionnaire is divided into three sections. Section-A deals with the demographic profile of the respondents, Section-B relates to questions studying the impact of work pressure on family commitments and Section-C deals with questions studying the impact of family expectations on work performance. The data was analyzed using frequency distribution and averages.

Table-1: Demographic Profile of Respondents

Sex	Frequency	Percentage	Marital Status	Frequency	Percentage
Male	26	21.67	Married	96	80
Female	94	78.33	Unmarried	24	20
Total	120	100	Total	120	100
Monthly Income (Rs.)			Family Type		
Below 10000	0	0	Nuclear	42	35
10000-20000	64	53.33	Joint	66	55

20000-30000	30	25	Single	12	10
30000-40000	12	10	TOTAL	120	100
40000 & Above	14	11.67	Educational Status		
TOTAL	120	100	Graduate	14	11.67
Age (Years)			P.G.	60	50
20-25	10	8.33	M.Phil.	16	13.33
25-30	34	28.33	Ph.D.	4	3.33
30-35	50	41.67	Professional Degree	26	21.67
35-40	12	10	TOTAL	120	100
40 & Above	14	11.67			
TOTAL	120	100			

Sources: Authors Compilation.

RESULTS AND DISCUSSIONS

Teachers were categorized on the basis of sex where 21.67 percent respondents were male and the rest 78.33 percent were females. 80 percent of respondents are married and 55 percent of respondents lived in Joint families. 78.33 Percent were in the age group of less than 35 years and only 11.67 percent are above 40 years of age. This clearly indicates that young population is inclined towards making their career in education industry.

The majority of respondents i.e. 53.33 percent were in monthly income group of Rs. 10000-20000. 25 percent are in the income group of Rs. 20000-30000 and only 21.67 percent are in the monthly income group of Rs 30000 and above. It indicates that started salary packages of the education industry are not very attractive but with experience and more of research work the growth prospects are quite encouraging.

Teachers were further categorized on the basis of educational qualifications where 50 percent of the respondents were post graduates, 21.67 percent had professional degrees and only 4 respondents were Ph.D. This indicates that entry point in education industry is Post Graduation and further research could improve there prospects.

Work life balance is not about trying to schedule an equal number of hours for each of the various work and personal activities, but it is all about enjoying your work. Work life balance is a persons control over the conditions in their workplace and home that mutually benefits the individual, business and society. Careful planning and personal effort is the secret of balancing work with life. **Out of the total sample 85 percent respondents give a positive response that they are able to balance their work and family life.**

Table-2: Tendency of People about Work (When Not Actually At Work)

	Frequency	Percentages
Never Think About Work	14	11.67
Rarely	8	6.67
Sometimes	40	33.33
Often	34	28.33
Always	24	20
Total	120	100

Sources: Authors Compilation.

Table2 reveals that one third of the total respondents sometimes worry about work when they are not actually working and only 20 percent respondents are always involved in their work even when they are not at the work place. Two third of the respondents accepted that they have to spend more time on their jobs than they like to spend at work.

Table-3: Chance Missed To Spend Time with Your Family or Friends Because of Work Pressure

	Frequency	Percentages
Never	12	10
Rarely	14	11.67
Sometimes	64	53.33
Often	26	21.67
Always	4	3.33
Total	120	100

Sources: Authors Compilation.

Table 3 results revealed that more than 50 percent respondents sometimes miss the chance to spend time with their family and friends. It indicates that they prioritize the work.

Table-4: Feeling of Contentment about the Amount of Time Spent At Work

	Frequency	Percentages
Very Unhappy	2	1.67
Un Happy	6	5.00
Indifferent	34	28.33
Happy	66	55
Very Hhappy	12	10.00
Total	120	100.00

Sources: Authors Compilation.

Results revealed in Table4 shows that 55 Percent of the respondents are happy and 10 percent are very happy about the amount of time spent at work place. This indicates that people enjoy while working and less than 7 percent respondents are unhappy at their work place and do not enjoy their work.

Table-5: Feel Tired or Depressed Because of Work

	Frequency	ercentage
Never	14	11.67
Rarely	24	20.00
Sometimes	64	53.33
Often	12	10.00
Always	6	5.00
Total	120	100.00

Sources: Authors Compilation.

Results revealed in Table5 shows that 53 percent respondents feel depressed or tired due to their work. Only 5 percent of the respondents always feel depressed about their work. More than 31 percent respondents hardly feel worried about their work.

Table-6: Problems Due To Work Pressure

	Frequency	Percnetage
Hypertension	16	13.33
Increase In Anger Level	48	40.00
Mismanage Inter Personal Relations	22	18.33
Frequent Headaches	30	25
Any Other	4	3.33
Total	120	100.00

Sources: Authors Compilation.

Figures in Table6 depicted that work pressure increased the anger level of 40 percent of the respondents. One fourth of the respondents' revealed of frequent headaches, 13.33 percent revealed hypertension and more than 18 percent revealed the mismanagement of inter personal relations.

Table-7: Techniques of Stress Management Arising From Work

	Frequency	Percentage
Playing with kids	22	18.33
Meditation	16	13.33
Entertainment	40	33.33
Traveling	8	6.67
Shopping	20	16.67
Any other	14	11.67
Total	120	100

Sources: Authors Compilation.

As most of the respondents are youngsters with small kids hence the figures in table 2.6 revealed that 18.33 percent of respondents get themselves involved with their kids to get relieved from work stress. Nearly one third of respondents involve themselves in entertainment through media i.e. music or television. 16.67 percent respondents go for shopping, 13.33 percent choose meditation and nearly 7 percent respondents go for traveling.

Table-8: Factors Helpful In Balancing Work Commitments

	Yes	%	No	%
Cell Phones/Laptops	42	35.00	78	65.00
Spouse Support	82	68.33	38	31.67
In-Laws Support	50	41.67	70	58.33
Grown Up Children	80	66.67	40	33.33

Sources: Authors Compilation.

Table8 showed that 35 percent respondents consider technology helpful in balancing their work commitments. More than 68 percent respondents considered their spouse as the major support in balancing their work commitments. More than 41 percent respondents revealed their in laws support and two third of the respondents revealed their grown up children as a great help in balancing work commitments.

IMPACTS OF FAMILY EXPECTATIONS ON WORK PERFORMANCE

There are certain factors which have affected the family expectations due to work commitments. These can be divided into two parts one which obstructs in balancing work life commitments and the other which helps in balancing the work life commitments.

Table-9: Factors Obstructing In Balancing Family Commitments

Factors	YES		NO	
	Frequency	Percentage	Frequency	Percentage
Long Working Hours	88	73.3	32	26.7
Meetings / Training After Office Hours	94	78.3	26	21.7
Weekend Work	56	46.67	64	53.3
Extra Work Load	69	57.5	51	42.5

Sources: Authors Compilation.

The current business world requires working round the clock to meet the ever growing demands and competition. The above table shows that 73.3 percent respondents said that long working hours and 78.3 percent respondents meetings after office hours is the major factor which obstructs in balancing family commitments. Long working hours and delayed meetings are considered to be an unbalancing factor. The respondents have less time to spend with their families due to these factors. The results shows that only 8 percent respondents spend 8 to 10 hours in a day with their families and around 45 percent respondents spend 4 to 5 hours in a day with their families.

Table-10: Factors Helping In Balancing Family Commitments

Factors	YES		NO	
	Frequency	Percentage	Frequency	Percentage
Flexible Working Hours In Emergencies	86	71.67	34	28.33
Short Leave	98	81.67	22	18.33
Being Able To Bring Children To Work On Occasions	64	53.3	42	35
Support From Superiors / Colleagues at Work	110	91.67	10	8.33

Sources: Authors Compilation.

Many organisations these days are providing the employees with a flexible approach to work. Some of these facilities are work from home, shift systems, target bound not time bound etc. 71.7 % of the respondents agreed that these approaches can help an individual to plan their professional and personal responsibilities more effectively. More than 91% respondents agreed that a healthy superior-subordinate relation will always boost up the performance and facilitate to do justice to both professional and personal lives.

FINDINGS OF STUDY

- 78.33 Percent were in the age group of less than 35 years and only 11.67 percent are above 40 years of age which indicates that young population is inclined towards making their career in education industry.
- 25 percent are in the income group of Rs 20000-30000 and only 21.67 percent are in the monthly income group of Rs 30000 and above which proves that started salary packages of the education industry are not very attractive but with experience and more of research work the growth prospects are quite encouraging.
- 50 percent of the respondents were post graduates, indicates that entry point in education industry is Post Graduation and further research could improve there prospects.
- One third of the total respondents sometimes worry about work when they are not actually working and only 20 percent respondents are always involved in their work even when they are not at the work place.
- 55 Percent of the respondents are happy and 10 percent are very happy about the amount of time spent at work place.

- 53 percent respondents feel depressed or tired due to their work. More than 31 percent respondents hardly feel worried about their work.
- Work pressure increased the anger level of 40 percent of the respondents.
- One fourth of the respondents' revealed of frequent headaches, 13.33 percent revealed hypertension and more than 18 percent revealed the mismanagement of inter personal relations.
- As most of the respondents are youngsters with small kids hence the figures revealed that 18.33 percent of respondents get themselves involved with their kids to get relieved from work stress. Nearly one third of respondents involve themselves in entertainment through media i.e. music or television and others go for shopping, meditation and traveling.
- 35 percent respondents consider technology helpful in balancing their work commitments.
- More than 68 percent respondents considered their spouse as the major support in balancing their work commitments.
- The respondents have less time to spend with their families due to long working hours and delayed meetings which are considered to be an unbalancing factor.
- The results shows that only 8 percent respondents spend 8 to 10 hours in a day with their families and around 45 percent respondents spend 4 to 5 hours in a day with their families.
- Many organisations these days are providing the employees with a flexible approach to work with facilities like work from home; shift systems and target bound not time bound. 71.7 % of the respondents agreed that these approaches can help an individual to plan their professional and personal responsibilities more effectively.
- More than 91% respondents agreed that a healthy superior-subordinate relation will always boost up the performance and facilitate to do justice to both professional and personal lives.

CONCLUSIONS AND SUGGESTIONS

Many organizations provide a full slate of flexi-time in emergencies, telecommuting, child-care, elder-care, leave, job-sharing, support from colleagues. Organizations must carefully select what they can offer, due to operational and budget requirements. Producing better work-life balance results and accomplishing business objectives involves education and training. Practical work-life balance training delivers the tools and skills that allow each individual to take ownership for creating value and balance and to assume accountability for their performance and output. Since the employee is accountable for meeting and balancing all of his professional and personal obligations the employee should continuously improve his contribution to the organization in order to reap the associated rewards and acting more productively in work and in life To Work.

Work-Life Balance does not mean an equal number of hours for each of your various work and personal activities. The best individual work-life balance will vary over time, often on a daily basis. The right balance for you today will probably be different for you tomorrow. The right balances for you when you are single will be different when you marry, or if you have children; when you start a new career versus when you are nearing retirement. There is no perfect, one-size fits all, balance you should be striving for. The best work-life balance is different for each of us because we all have different priorities and different lives. Work life balance is closely related and derived from the research of job satisfaction.

Workplace conflicts have negative implications on family life and it is quiet necessary to balance work and personal life related demands. So individuals and organisations try their best to minimize this conflict. The employees need to realize that they need to balance work and life for both success at the workplace and a fulfilled life. Organizations can only facilitate, but the initiative should be taken by the employee. There are many measures that companies can take to ensure work-life balance, such as employee benefits like child care facilities, video conferencing to reduce travel, not scheduling work events during holidays and so on.

Two main issues in work-life balance are time and stress. An individual who manages time and stress perfectly will have a perfect work life balance. Time and stress are inter-related as one is the outcome of mismanagement of the other. If the activities of an employer are not planned properly, the employee runs out of time and pressure builds up leading to stress disturbing the balance between the personal and professional life of an employee. **Time Management + Stress management= Work Life Balance.**

The employees are the greatest asset and the organization performance is affected by employee performance. The HR department of the organization must work out strategies to help attain work-life balance which makes the organization the happiest place to work in.

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CUSTOMERS RELATIONSHIP MANAGEMENT IN OPEN DISTANCE LEARNING INSTITUTIONS

Venkateswara Rao Korasiga²⁷

ABSTRACT

Universities in the business of educational services are realizing that they are increasingly under the pressure of competition. Desire to be self-reliant and even to stay ahead of competition is order of the day. Though these institutions are teaching management to their students, they themselves have to look at themselves and introspect how well they are managing their own institutions. Maintaining reputation, attracting students, reducing dropouts are some of the challenge. To overcome these challenges, managements of institutions can look for some of the latest innovative management practices which are proven and adopted in the corporate world. An empirical work is made to explore the perception of ODL students / customers about the factors contributing to the success of their distance education programs. Basing on this research suggestion are made to improve their performance using CRM concept as a strategic move in managing their ODL services so that they can derive benefits like reducing dropout rates, attracting students, retaining, and improve their image.

KEYWORDS

Institutions, CRM, Open Distance Education, Educational Service, Students etc.

INTRODUCTION

The problem of managing educational institutions especially in countries like India having large population is a challenging task. Huge budget requirement, infrastructure facilities, qualified man power to manage the processes for ever growing needs of the population is a herculean task. In this context distance education has assumed utmost importance. World over, educational institutions have recognized this fact and encouraged distance educational system as an alternate form to conventional educational system. Initially, Government Universities were established as exclusive distance educational institutions with a social objective of educating their masses including socially deprived, physically challenged, school dropouts. Subsequently, distance educational systems became revenue models and found as a cash cows to augment the dwindling budget allocation to Government Universities. Recently, many self-financed institutions found interest in distance education. All these developments lead to competition among distance educational institutions competing for the same base of customers. Ever since distance education was recognized by WTO as a service, Universities from anywhere from any country across the globe can emerge as competitors. In this scenario, only the best able institutions will survive.

Though vast numbers of institutions are offering distance educational programs, managing these programs needs special attention and competencies, which are different from traditional form of class room style education. Challenges in managing these institutions are many like attracting students, managing volumes, maintaining standards, preparation of customized study material, creating study centers, arranging contact classes, specialized delivery mechanism, administrative help, trained man power, provision of timely information, counseling, preventing dropouts etc. To overcome these difficulties, innovative approaches are required to be adopted. Though some institutions are managing these issues, only those institutions who manage effectively can stand a head of competition.

In the pursuit of managing these complex distance educational system, one has to think about innovative approaches like Customer Relationship Management (CRM). Though CRM is an unconventional technique, its proven benefits in products as well as services in terms of improved profits, positive customer experiences makes the researcher to think about its adoption to open distance learning services. If Service organizations in business areas have reaped the benefits from CRM implementation, it's logical that CRM can be tried in educational service too. Due to unique characteristics of Open Distance Learning involving more emphasis on support services, application of CRM is much more appropriate to Open Distance Learning (ODL) systems than conventional regular class room education. CRM can helps the educational institution to present a consistent view of the customer relationship across all delivery channels results into better timely and effective service that delights the ODL students. Positive student experience in terms of their gain in learning as well as in support services can makes the student to continue with the entire program which leads to avoid drop outs.

Due to need for ODL institution to survive and compete in the market place, a flawless credible system is imperative. At each and every stage of student life cycle starting from enrollment process to alumni, efficiency and fairness is to be ensured. As huge numbers of aspiring students are involved in the process, managing administrative tasks associated with choice of courses, combination of subjects, information for prospective students, admissions, financial aid, registration process, pedagogical issues, delivery of course content, the student services concerning with various queries pertaining to receiving course ware, fees particulars, library services, contact center information, delivery of assignments, correcting assignments with necessary suggestions, conducting examinations, timely dispatch of hall tickets, declaring results in time, re-evaluation, career counseling, handling drop outs etc., human errors and delays are common feature. Added to this, the ever changing customer needs, increasing computer skills of customers, changed the environment completely. Coping up with needs of 21st century customers

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became a major challenge for institutions running ODL. No longer feasible for the institutions to run their activities in the same old “brick and motor” style, but to respond to these challenges, it is inevitable to take advantage of latest ICT in the place of old systems. Even adopting just latest technologies is not enough but it has to be backed by sound management strategies. Adoption of latest strategic concepts like ERP, SCM, and Customer Relationship Management may render great help. Of course, at each and every stage there should be some kind of measurement on performance to ensure the compliance and effectiveness.

Performance indicators are powerful tools, at both the university/college/department levels, for internal evaluation as well as for strategic assessment. The development of internal indicators requires more attention to the contextual characteristics and operational goals of the university. Until performance indicators are linked to the drivers of institutional effectiveness in a meaningful way, the desired improvement in service productivity and impact are unlikely to occur. It is imperative that institutions to create meaningful systems for strategic organizational assessment and then uses that information in internal policy and resource allocation decision.

Since education is considered as a service industry, the CRM practices used in similar service areas like banking, insurance, airlines, hospitality etc may hold good. Though there is a disagreement among some of academicians about whether a student is to be considered as a customer, it makes sense to treat student as customer to apply CRM concepts with appropriate modifications as the benefits outweigh the minor discomforts.

Universities abroad have already started implementing Customer relationship management in education in general even more specific to distance education. Though some higher educational institutions in advanced countries have realized importance of customer relationship management in the field of distance education and implemented much earlier and the benefits have been reaping, no considerable effort was done in Indian context.

In the pursuit of improving the effectiveness of ODL institutions in India, we need to explore and introduce innovative methods of management practices. Unless we assess exactly at what stage our institutions are in and to what extent these institutions are serving students in terms of educational and administrative needs, it is difficult to improve the situation. An exploratory work in this direction is necessary.

Customer Relations ship Management (CRM)

The new millennium is in the midst of explosive changes witnessed by rapid transformation in business conditions, volatility in the markets, reconstructed value chains, and new global competitors. Most of the business houses, with future prospects in mind started critically evaluating their internal processes, policies and strategies. Consequently, they have assessed current and future projects and taken a close look at such initiatives provide immediate value to their organizations and found that projects that will help an organization focus more on customers are on the priority list. They also found that projects which focus more on customers place the customers on the priority list will definitely help not only in running the organization successfully but also improves growth and development. Irrespective of their nature of business, organizations across all industries have found that understanding their customers and making use of this knowledge has led dramatically to immense operational effectiveness. From then, the concept of Customer Relationship Management (CRM) gained importance in business and proved its utility in tackling customer satisfaction and retention which is also complemented by the statement, “Interest in Customer Relationship Management (CRM) began to grow in 1990s”, (Ling and Yen, 2001; Xu et al., 2002).

Open Distance Learning (ODL)

Distance education as industrialized form of teaching and learning internationalized and democratized, (Otto Peter, 1967) , the concept, ‘guided didactic conversation’, “internalized conversation” (Sewart, D, Keegan, D and Holmberg, B, 1983) represents a useful learning strategy. The theory implies that the character of good distance education resembles that of a guided conversation aiming at learning. Study center, which is local unit of the university’s, facilitates contact, counseling, access to library between student and university (S. Clennell, J. Peters and D. Sewart (1983).

CRM in Educational Institutions

While applying the CRM concept to education service, especially for higher education and distance education, the business strategy positions the customer as the focus of the organization, creating a “customer focus” orientation (Grant and Anderson, 2002). In other words creating student focus is an important step. Kotler and Fox (1995) stated that “The best organization in the world will be ineffective if the focus on ‘customers’ is lost. First and foremost is the treatment of individual students, alumni, parents, friends, and each other (internal customers). Every contact counts”. Crawford (1991) says, even before they were liable for the payment of tuition fees, Higher Education (HE) students in UK were considered to be the “primary customers” of a University.

Competition in educational institutions around the world forcing to re-examine their structures and business strategies, and the processes employed to deliver value adding quality education. The higher impact of advanced technology, discerning consumer demand, the ever-increasing non-traditional student population, the changing face of educational delivery methods, tougher competition and shrinking markets in certain subject areas and regions of the country forced institutions to look for innovative ways (Voss, 1993).

ICFAI University, a reputed University, managed by private body without the support of Government funding is selected for this study as it has to survive by its efficiency. Though this university is offering both regular and distance programs in education, only distance programs are taken for this study as distance programs needs unique type of service requirements.

OBJECTIVES OF STUDY

The present study is intended to focus on exploring the possibility of adopting CRM as a much needed technique in retaining students and enhancing the success rate of the distance learning program as this strategy has proved its utility in the service industry. Hence, the objectives of the present study are:

- To study the challenges faced by institutions running ODL programs and the need for innovative methods of marketing.
- To study the role of CRM in distance learning systems.
- To identify how and to what extent these institutions are adapting Customer Relationship Management Concept.

In this context, examining the student life cycle, just like product life cycle study in marketing, may offer some insights about the needs of students at each stage of life cycle. This in turn may help us to formulate appropriate future strategies to eliminate drop outs and increase the satisfaction from the offerings.

Also we can explore the prevailing CRM practice, explicitly or implicitly followed, through empirical analysis and find out what are the constituting factors that influence quality and satisfaction of the service and how they can be further utilized to maximize the effect of CRM.

The study covers the distance learning program offered by ICFAI University in higher educational setting.

RESEARCH METHODOLOGY

Out of total population of 2,500 students at the time of study, about 200 samples were considered fit after discarding some partially filled instruments.

In addition, in-depth interviews were conducted with the university staff and faculty of ICFAI University to understand the intricacies and complexities of the services offered and problems involved in it to know the service providers' perception.

Theoretical Background

It is a well known fact that practice of Customer Relationship Management (CRM) brings competitive edge to the organization and also will have positive impact on the performance of the organization. However, there is no clarity for organizations what constitutes exactly CRM and its underlying factor structure. In the past, there were some attempts to develop frame work for CRM and its constituent components. For example, to quote a few, Fox and Stead (2001) stated that there are four important areas viz. Strategy, People, Technology, and Process where as Leo Y. M. Sin, Alan C. B. Tse and Frederick H. K. Yim stated that CRM is a multi-dimensional construct consisting of four broad behavioral components: Key Customer Focus, CRM Organization, Knowledge Management, and Technology-Based CRM.

In this study, an attempt is made to bring out a factor structure for CRM in Open Distance Learning service. From the past research and literature survey, a theoretical model was hypothesized prior to conduct empirical work on the data by applying factor analysis. This multi dimensional construct is tested using exploratory factor analysis and made a new construct with the factors derived. Since Open Distance Learning is also a service, the factors applicable to other services like financial, airlines, insurance services etc., are also applicable to Open Distance Learning Institutions with appropriate modifications.

In this empirical work, an exploratory Factor analysis with the help of SPSS software was used. Factors were extracted from the data obtained from representative sample collected from the selected University, ICFAI University. The factors thus identified are: Competence, Quality of Service, Customer Satisfaction, Customer Value, and Customer Focus. The factors extracted represent the perception of customers. A frame work was developed with the factors thus obtained.

In this theoretical frame work, Customer satisfaction and Quality are adopted from Churchill and Surprenant³ (1982), Crosby *et al.*⁴ (1990), Ndubisi⁵ (2003) and Moorman *et al.*, Competence and Customer focus, Value to customer are considered.

Data Collection and Sampling Method

The study was conducted through a primary data collection using a survey instrument consisting of 76 questions starting with demographic questions followed by required questions using 5 point likert scale and ended with some open ended questions.

Separate questionnaire for staff was prepared to collect data from the staff directly. Data was collected from the staff of the ICFAI University. A questionnaire consisting of 22 Questions were prepared of non-comparative itemized rating scale (where each subject is scaled independently of the others), Likert scale technique. On 5 point Likert scale ranging from strongly agree to strongly disagree (5=Strongly Agree to 1=disagree) along with 4 open ended questions.

In the present work, period of survey was limited to academic year 2008-2009. The methodology used is exploratory factor analysis to examine relationships between items and latent factors with which items associate. In other words it can be said that, to account for the relationships among observed variables by summarizing the data set into a smaller number of factors or dimensions. A truly exploratory factor analysis does not have a hypothesis about the number of common factors required to account for the underlying dimensions of a data set (Crocker & Algina, 1986).

In the first step, defining factor analysis problem and identifying the variables to be factor analyzed were done. Then a correlation matrix of these variables constructed and a suitable method of factor analysis selected. After that, a decision to extract required number of factors and the method of rotation to be applied was taken. Next, the rotated factors are interpreted. Depending upon the objectives stated, the factor scores were calculated and surrogate variables selected to represent the factors in subsequent multivariate analysis. Finally, the fit of the factor analysis model was determined. For this purpose the software tool used is SPSS. Staff sample size of ICFAI University was only 25 out of 30 employees which is not sufficient for factor analysis which was confirmed through KMO and Barlett test for sampling adequacy. Hence emphasis was given to qualitative analysis basing on structured in-depth interviews and feedback from the employees who are directly related with the program delivery and associated services was conducted to obtain service provider's perception.

Customer Relationship Management performance should not only be measured from an internal process-driven stand point, but also from the customers' perspective since the success of CRM activities can only be judged by considering the target customers' evaluation. Customer is only able to judge observable company performance from an external perspective. Most of the past research concentrated on economic measures like ROI, the present study focuses on behavioral aspect.

As the main objective of the present study is to assess how and what extent the institutions are adapting Customer Relationship Management, the study attempts to measure the CRM functionality and identify constituent factors that are significantly contributing for its practice. The work concludes with a framework for successful practices of CRM in distance learning with the help of statistical factor analysis to be carried on the data collected.

Formulating the Problem

In the present work, the objective of factor analysis is primarily to understand the Customer Relationship Management (CRM) and its role in enhancing customer value by identifying the underlying factor structure and their influence on Customer Relationship Management.

The data obtained from students currently pursuing graduate and Post graduate program from the sample ODL institution, ICFAI University, is used to study order and structure by providing a meaningful explanation. It includes both theory and underlying constructs and dynamics which give rise to observed phenomenon, and methodology for attempting to reveal those constructs and dynamics from the observed data.

Initially a check has to be conducted whether the assumptions of factor analysis are met by the data collected for applying factor analysis. Out of the above assumptions the data which we have collected is already satisfying the normality test. The samples are large enough to estimate the correlation among the variables.

LIMITATIONS OF STUDY

Though the study is about education service, our study is limited to only to higher education in open distance learning. Due to limitation of time and resources, study was limited to ICFAI University, a private self financed university, surviving against market forces, offering distance education programs, is chosen for the study.

Another limitation is in collecting data due to the fact that the distance learners of ICFAI University are spread across and the study center attendance used to be considerably less. Dual approach of sending questionnaire on line through their e-mails is also adopted but the response to questionnaire was poor despite of repeated reminders through there was no much difficulty in understanding the questionnaire by the distance learners.

Another limitation in data collection is due to limited number of staff who is decision makers in the process in both the organizations. Though effort was done to collect data from the service providers, the sample is too small for factor analysis and it failed to KMO test. Some of the open ended questions present in the questionnaire have given some data which is utilized as a qualitative data.

DATA ANALYSIS

Exploratory Factor Analysis

The factor analysis results are as follows. The limitation is that the data is a small set of 200 samples as the enrollment rate has fallen drastically due to several reasons which can be examined after the analysis. However to bring about some comparison between State run institution and self financed autonomous institution, an effort is made so that important clues can be inferred.

Table-1: KMO and Bartlett's Test on ICFAI University Data

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		.671
Bartlett's Test of Sphericity	Approx. Chi-Square	7231.651
	df	2145
	Sig.	.000

Sources: Data Analysis.

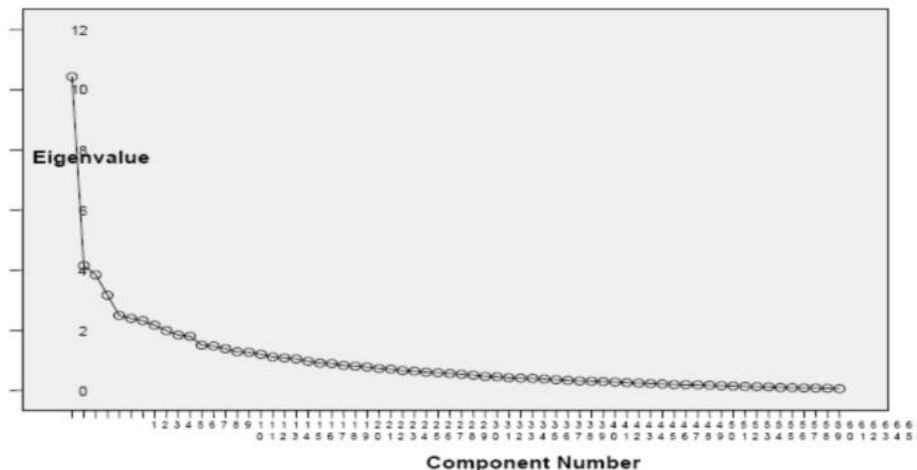
The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy which compares the magnitude of the observed correlation coefficients to the magnitudes of the partial correlation coefficients obtained from our SPSS analysis of KMO value is 0.839 greater than 0.5, clearly supports using factor analysis for ICFAI University student data set.

Communalities

In case of ICFAI University Student's data, all communalities for all variables are greater than 0.7 it means that each variable significantly explains the common variance between the factors.

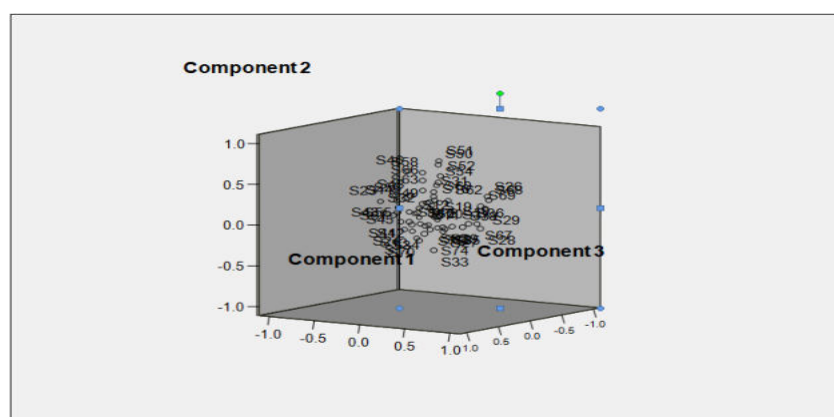
Eigen Value

The Eigen value represents the amount of variance associated with the factor. Hence, only factors with a variance greater than 1.0 are included. Factors with variance less than 1.0 are no better than a single variable, because, due to standardization, each variable has a variance of 1.0 The SPSS output Table2 indicates that only variables whose eigenvalues are greater than 1.0 are retained.

Figure-1: Screen Plot for ICFAI University Student's Data

Sources: Data Analysis.

Above scree plot obtained through SPSS output of the data, it can be seen that the break occurs at 5th point indicating that the first 5 factors are significant. In the factor analysis conducted in this research, the eigenvalue cut-off of 1.0 was used in choosing 20.

Figure-2: ICFAI University Student Data Component Plot in Rotated Space

Sources: Data Analysis.

Restated Component matrix for the ICFAI data gives more refined values for the factors:

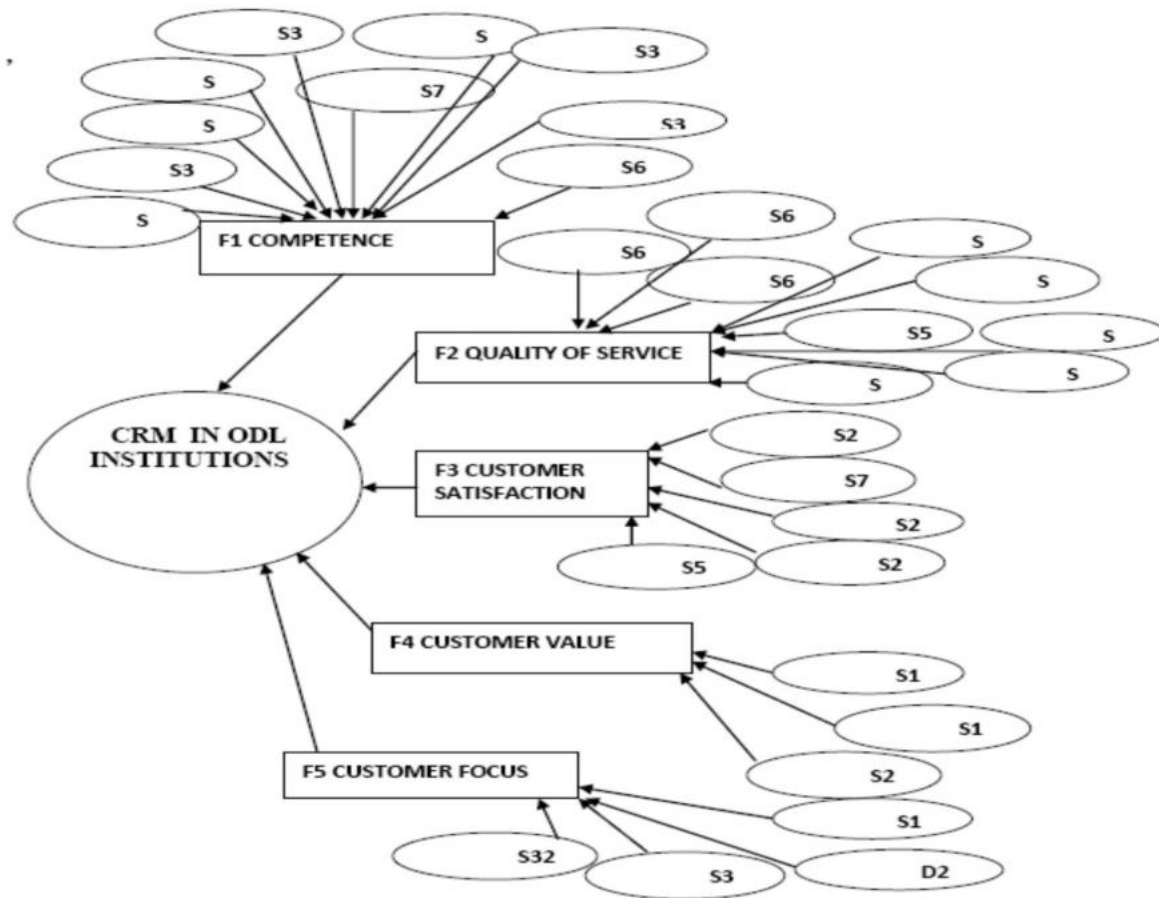
Table-2: Variable Extracted From ICFAI University Student's Data

Variable	Description	Factor Scores
F1	COMPETENCE	
S69	I would like to take another course	.692
S68	I will recommend to my friends	.687
S29	Completely satisfied with the reading material	.682
S28	Study material is good and user-friendly	.638
S36	Teachers are good and teaches well and friendly	.586
S38	Satisfied with the examination results	.575
S26	Course material is according to subjects taken by me	.572
S67	Desirability of query handling through website	.569
S37	Satisfied with evaluation process	.508
S53	Over all quality of education provided	.402
F2	QUALITY OF SERVICE	
S51	Careers and jobs in website	.725
S50	Student support services are good through website	.716
S46	Contact class information	.620
S58	Personal counseling	.617
S66	Help desk	.574
S52	Fees payment facility	.571
S54	Administrative arrangements	.546
S60	Teleconferencing	.459
S63	Attitude of staff at study center	.430
F3	CUSTOMER SATISFACTION	
S65	Location of study centers	.573
S34	Contact centers are easily reachable	.562
S55	Enrollment process	.553
S61	Student support in conducting Exams	.550
S42	Admission details in website	.529
S56	Fees payment	.512
S41	In case I lose originals how easily I get duplicates	.507
S49	Grade cards and results in time ws	.462
S33	Contact classes regularly conducting	.436
S70	The institute website contains all the information	.415
S64	Study center time suitable	.403
F4	CUSTOMER VALUE	
S19	To get promotion / pay raise	.604
S13	Regular study was not possible because of my employment	.593
S48	Examination hall tickets through website	.469
S39	Institute publishes results as per schedule	.452
F5	CUSTOMER FOCUS	
S12	I could not join regular courses as they are very costly	.586
S30	At times the institute asks for my comments and suggestions	-.564
S11	I could not get admission in regular course	.564
S15	Family members did not allow me to attend regular course	.437
S14	No time for regular studies because of my family obligation	.437
S16	I feel distance study mode is convenient and costs less	.424
S21	Just to pass time	.422
S23	Had this institution conducted counseling sessions how they are helpful	-.408
S10	In your perception whether the course is recognized on par with regular courses.	

Sources: Data Analysis.

Basing on the empirical analysis and thus obtain values, the initially constructed theoretical model is redesigned for a new construct which is presented in figure-3:

Figure-3



Sources: Authors Compilation.

Validation

Statistical tests for measuring factor reliability do not appear to be well developed (Cliff and Hamburger 1967). However, there are some simple methods for assessing reliability to be resorted to. In this work, well accepted method of validation, the split method is being used to validate this work. The original data was split into two random samples. Separate factor analysis was run for each subset and a comparison was made. The resultant out put factors and their factor loading are shown in Table 4.0. The results indicates factor structure exists and supports results from over all sample. This validates this work of factor analysis. In case of ICFAU data, it could not be done as the sample size is small and further split may give erroneous results.

Further validation was done using Cronbach's Alpha method of testing and the values are strongly supporting our work.

FINDINGS, CONCLUSIONS AND SUGGESTIONS

Research question for this study is to what extent ICFAI University are practicing CRM in their delivery of their Open Distance Learning service and to find out what are the underlying constitute factors responsible for effective CRM from the perception of Learners / customers. A model has been used as a frame work to evaluate the contributing factors from the perspective of customers for organization's ability to foster an effective CRM environment for open distance learning. The methodology is used for this purpose is started with literature survey of the reports on CRM practices both in general and in specific to distance learning, study of important issues that influence the CRM activities in distance learning, physical survey of ICFAI University ODL programs to observe the practice of CRM activities and collect relevant data and information, analysis of survey data and information, using exploratory factor analysis performed on the statistical data collected during surveys, and creation of framework for successful CRM practices in distance learning institutions.

Findings and Results

After analysis, the derived factors for ICFAI University are summarized:

Customer perception of CRM is the basis of this research. It is assumed that due to nature of the service, for a long time, some kind of CRM exists in the organization even though ICFAI University has not deliberately adopted CRM as a Strategic option.

Customer relationship management activities should not only be evaluated from an internal process-driven standpoint, but from the customer's perspective of CRM since the success of CRM activities can only be judged by the target group's evaluation.

For ICFAI University the factors identified are Competence, Quality, Customer satisfaction, Customer Value, Customer Focus. Though the factors are same, the variation is in degree.

Competence (F1)

Out of all the factors identified, the factor, "Competence" emerged as the first and foremost factor identified which is distilled to be an important and significant one with highest factor loading. The individual constituent item scores consist of ten values. S69 (0.692), S68(0.687), S29(0.682), S28(0.638), S36(0.586), S38(0.575), S26(0.572), S67(0.569) S37(0.508), S53(0.402). Table 4.6 The factor "Competence" is the major factor emerged out of the ICFAI University data set analysis, indicating that the customers perceived that competence is there with ICFAI University to offer Distance Educational Products. Though in initial years it attracted good number of students, this is primarily due to the image and reputation gained through regular courses which led the customers to believe that the institution has good "Competence" in conducting these courses.

Quality (F2)

The second factor, quality is very important factor found out from the factor analysis data of ODL students is evidenced by the factor loading. The values of constituent factor are S50(0.716), S51(0.725), S52(0.571), S54(0.546), S60(0.459), S63(0.430) which is highly significant.

The factor, Quality, emerged as second major factor indicating that the perceived quality is high for ICFAI University. The customers are ready to pay more money to the high quality of programs offered by ICFAI University. Actually, in the Indian Scenario, the learners are fed up with the quality of programs offered by regular conventional universities. This dissatisfaction is capitalized by this institution as a shrewd marketer of services. The curriculum design, the high standard print material, use of electronic material like CDs, query handling, support services through high tech web portal etc. attracts students.

Customer Satisfaction (F3)

Customer Satisfaction has emerged as a third factor, with the constituent items factor loadings are S65(0.573), S34(0.562), S55(0.553), S61(0.550), S42(0.529), S56(.512), S11(.507), S19(.462), S33(.436), S70(.415), S64(.403), which indicates that customer satisfaction is distilled out as a next major significant factor.

Customer satisfaction has emerged as a third Factor from the data analysis with high factor loading values indicating that perceived customer satisfaction is high. This may be due to some good practices followed in terms of delivering books and CD s which help them to read at their own pace. The 24/7 service through web portal without much effort and cost, payment gate ways, hustle free services. Prompt and quick handling of queries either through e-mail or through manually is appreciated by the new age learner.

Customer Value (F4)

The fourth factor from the analysis is Customer value with factor values of constituent item factor values are S19 (0.604), S13 (0.593), S18 (.469), S39 (.452) which indicates Customer value is a significant factor.

The third factor is Customer Value which may be due to the feeling of the customers that acceptance of the degrees awarded by ICFAI University are highly considered for the recruitments, and for promotions in the Industry. It is imperative that customers feel that they can get value for the money spent for pursuing the courses from ICFAI University, though the cost of programs are very high compared to other university in India. This can be inferred as customers perceive more value for their money spent.

Customer Focus (F5)

Finally, the fifth factor is Customer focus which is significant with a value of and its constituent factor values are S12 (0.515), S30 (-0.594), S11 (-0.572), S15 (), S14 (.437), S16 (.424) and S21 (.422), S23 (-408), S10 (-0.408) indicating that Customer Focus is significant.

Customer Focus has emerged as a Fifth factor identified as prominent in Factor analysis. Though customer focus ranked well, some of the negative values indicate that the customers are not positive on customer focus by this institution.

Qualitative Research

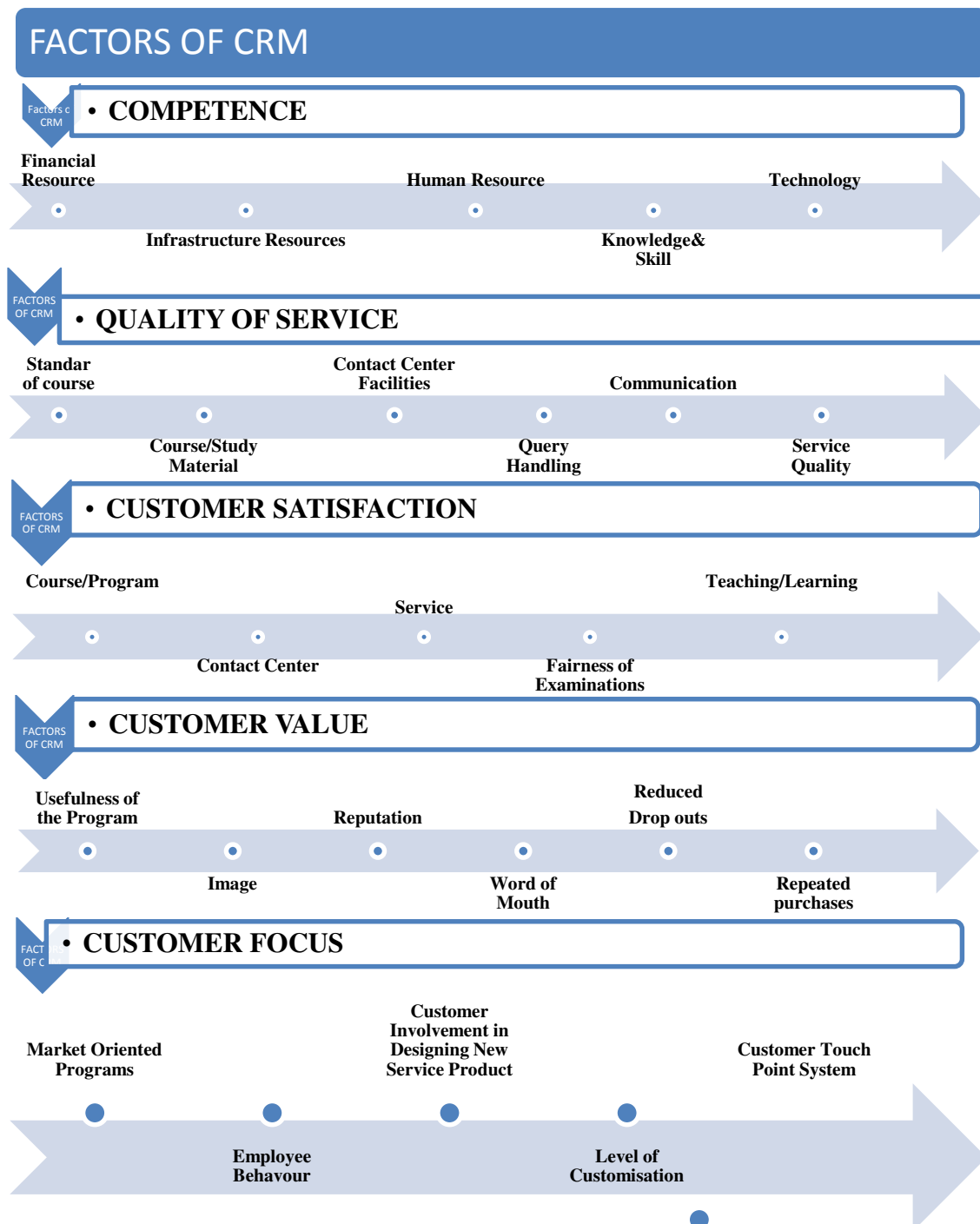
Qualitative survey was conducted through in-depth interviews with executives concerned and from the students using open ended questions. The results are almost coincides with the qualitative analysis with slight deviation.

High dropout rates are reflected in quantitative and qualitative analysis. This may be due to several reasons. A thorough research is immediate necessity as the dwindling figures may effect even survival of this segment of distance educational service.

Some deviations like study material supplied to customers could not be easily understood in terms of its tone and language in the absence of teacher. From the qualitative survey it is found that most of the students feel that though the material is of high standard, it takes long time to read the material. Since most of the customers are employed and have to balance between their work place pressures, family related pressures, less time is available to their educational goals. With an intention to provide quantity education, providing study material with high standard leading to the situation where learners is put into difficulties in terms of reading the course material in a limited available time and understanding the subjects in the absence of teacher. Further research is an immediate necessity to explore customer / learner expectations of quality and what they are really receiving and the gap between perceived quality and received quality of service.

CONCLUSIONS

The results indicate that CRM practices are existing to some extent by its very nature of service and practices.



Sources: Authors Compilation.

RECOMMENDATIONS

Re-Designing Study Material

Though the support services like query handling, payment facilities are utilized to create delight to the customers, in the main study material need to be redesigned as per the customer needs. At the time of the survey period, ICFAI University is delivering same high standard, high volume; material used for regular face-to-face program was delivering to the distance program students also. The main constraint is time availability for reading this material in the absence of teacher. ICFAI University can be benefitted by conducting further research to understand the needs and learner styles in order to redesign their study material to suit the needs of their customers.

Avoiding Drop Out rates

One surprising finding is that high dropout rate, 55% is an alarming issue despite of adopting high technology infrastructure focused to satisfy the customer. This can be reduced by understanding the problems of students and redesigning the study material in such a way that students/customers of the program can read the material in a simplistic way even without the help of a teacher within their available time.

Keep up Contracted Promises

Reputation is important for higher learning institutions in projecting a professional image. Access issues include approachability, ease of contact, availability and convenience. Programme issues are those with importance of offering wide ranging and reputable academic programs/specializations with flexible structures and good services. The promise to conduct examinations in embassies which was promised has to be fulfilled by sorting out problems. Finally by adopting CRM as a deliberate strategy ICFAI University can benefit from reduced drop outs, increased customer satisfaction.

Implications

The present study makes both academic and practical contribution, and suggests several applications for the research. Academic contribution is to offer a significant advance to the current literature of CRM application to Open Distance Learning service, which is having some unique characteristics. This study will help to know the perception of students about the service rendered by the institution. From the institution point of view, how CRM concept can be practically translated into actionable steps. Though some of the concepts presented in this model are familiar to academicians and marketers; its value is in integrating various concepts to provide a more comprehensive holistic picture of CRM.

Knowledge Management

This knowledge management helps mankind in an endeavor to transfer knowledge from generation to generation by universities and among levels and across functions of an organization. Universities can resort to knowledge management to systematically record their experiences in managing their knowledge in managing these programs and utilize them when they are needed and transfer them to the needed areas.

Knowledge about customer is an important asset and effort should be made to collect data of customers and analyze the data time to time for valuable clues. Data can be centralized by creating a centralized data base and the queries can be handled through integrating all the touch points of communication with customers. Keeping a record of queries will help to understand the frequently asked questions. For these questions answers can be made and kept in the website of the institute.

The knowledge of student data and the segmentation process helps to understand the trends in the changes in type of customers and their needs. This knowledge helps to design future programs with relevance. Historical data can be copied to separate data storage devices and repository of past data helps in identifying trends by utilizing data mining techniques. Data warehousing and data mining techniques can be used to take valuable insights from the stored data and the Knowledge management can be of great help in future decision making for the practicing managers.

SCOPE FOR FURTHER RESEARCH

Further research in this area can be exploring the management perspective of CRM either through factor identification or through balance score method. The gap in perception between management and customers can be studied. Since deliberate CRM initiatives and their implementation in ODL institutions have not gained momentum, availability of data to know the impact of CRM is difficult at this stage. The effect of CRM after implementing CRM initiative can be done by taking time series data at latter stage.

A CRM approach can help to understand their customers better throughout their life cycle and suitable steps can be designed to meet their needs. An honest approach to meet the promises made by the institutions to the customers of ODL can be achieved through deliberate attempt in cultivating customer focus through CRM can help in long run.

From the factor analysis of the data, it is evident that one of the underlying factors is “Customer satisfaction”. Customer satisfaction perceived by customers is a very significant factor in the CRM process. Though the customers of the institutions are satisfied with the present programs and their delivery, the associated services are also satisfactory; students are finding it difficult to read the material within the available time.

The initial counseling sessions which helps the students to choose appropriate subjects, the schedule of dispatch of material, delivery of course material, library facilities, etc., are satisfactory for the present segment of customers. However, as the profile of customers is changing, same comfortable position may not be guaranteed in future unless a proactive and dynamic approach is adopted to enhance this factor.

The fourth factor, “Customer Value”, can be viewed in two ways. The first one is the value that customers look for their money, time spent, and effort. The second is the value the organization derives from the satisfaction of the customers derived during their educational experience with the institution. In the customer perception, the value customer expects in pursuing distance education program; future employment prospects, pay raise or promotion if he is already employed, or improving status in the society etc. Universities have to identify this need in developing programs for their customers.

Institutions have to incorporate the fifth factor, “Customer Focus”, in to their strategic planning process and try to bring change in the entire organization so that it can serve customers effectively. Customer focus must be the focal point in all the programs of the university, expenditure they make, services they render. In other words, customer focus is to be made organization wide philosophy and commitment for which complete change is required in the attitude of the people running the university from top to bottom. While doing so automatically customers will get attracted to the university programs and delighted by the quality of the services. As a result, the customers become loyal to the organization and cultivate a relationship or bonding with the university. Satisfied customers will spread the message through ‘word of mouth’ resulting into greater reputation and image of the university and its programs. In essence, CRM has to be an organization wide strategy with customer focus, relationship building activity using Information Technology.

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IMPACT OF AGE AND INTERNET ACCESS AND USAGE ON STUDENT'S ATTITUDE TOWARDS E-LEARNING: A STUDY ON PANJAB UNIVERSITY

Gunamala Suri²⁸ Sneha Sharma²⁹

ABSTRACT

Technological advancement has led to important changes in the way education is being imparted. Tremendous advances in computer technology and evolution of Internet have led to new approaches in learning and training which are summarized under the term e-Learning. This study intends to understand the relationship between age and students' attitude towards e-learning. As per the reviews age plays a key role in understanding the differences in perception of usefulness of technology and ease of use w.r.t technology adoption.

This paper analyses the impact of age on attitude towards computer technology and e-learning collectively. It also analyses how access to internet and weekly usage rate of internet affects the attitude of students towards computer technology and e-learning. A questionnaire was developed to collect the necessary data. In the study 477 students enrolled in various courses across many departments at Panjab University, Chandigarh, India was analyzed. The results showed that a non significant relationship exists between age and attitude towards computer and e-learning.

The factors on Scale on computer and e-learning attitude (SCAELA) showed variable results with respect to access to internet and weekly usage rate of internet. The results suggest that sentiment towards computer / computer technology is significantly related to internet access. A significant effect of weekly usage of internet was also found on respondent's sentiments towards computer/computer technology and perceived usage of computers. These inputs can be used in establishing an e-learning environment.

KEYWORDS

e-Learning, Students, Attitudes, Age, Computers, Technology, ICT, Panjab University, SCAELA etc.

INTRODUCTION

Advances in Information and Communication Technology (ICT) are opening up new opportunities. The evolution in the field of modern information communication technologies (ICTs) has greatly changed various aspects like language pedagogy, language learning and language use. Education sector has been radically revised. The teaching and learning strategies have evolved with the aim of providing better service to the learners through the intensive use of ICT. The information technology in teaching and learning has created a need to transform how students learn by using more modern, efficient, effective and cost-effective alternatives in the form of e-learning. An e-learning environment works as an interface between the students and their learning objectives and also provides different means to achieve the learning goal.

Usually the e-Learning environment can be accessed by using a Web browser over the Internet or Intranet and supports several learning strategies and different ways of interaction, communication and collaboration. Learning is deployed with the objective of enhancing the students knowledge and cost saving. e-learning also helps to reach geographically dispersed groups, to provide "anywhere-anytime" learning, to provide consistency, to ensure compliance with regulations, and to improve productivity etc. Educational institutions use e-learning for broadening the academic scope. The evolution in the field of modern information communication technologies (ICTs) has created a need to transform how students learn by using more modern, efficient, effective and cost-effective alternatives in the form of e-learning. e-learning is explained as an Internet-enabled learning process (Gunasekaran et al, 2002).

e-learning can provide much more references and learning scopes than the ones provided in the usual text books. Class assignments can be assigned to the students and also submitted back using e-learning portal. Decision-makers associate e-learning with the new ways of learning that are more cost efficient than traditional learning strategies, which allow students to have better control on the process of learning as they can decide when, where and how fast to learn.

This research builds a multiple approach to examine individuals' attitude towards computer/computer technology and e-learning. Based on age of students and the access to internet and weekly usage rate of internet by the students, this research will examine attitudes of university students toward e-learning and computer technology.

REVIEW OF LITERATURE

Homan and Macpherson, (2005) and Sambrook (2003) in their research used the term e-learning to cover any electronic learning material from CDROMs on stand-alone PCs to intranet/internet networked systems with downloadable and interactive material. e-learning has undergone three distinct generations. The first generation from 1994-1999 was marked by the passive use of the Internet where traditional materials were simply reformatted to an online format. The second generation i.e. from 2000-2003 was

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marked by the transition to higher bandwidths, increased resources and the move to create virtual learning environments. The third generation that started from 2004 was marked by the incorporation of greater collaboration, socialization, project-based learning and reflective practices (Connolly and Stansfield, 2007).

It is widely accepted that advances in information technology and new developments in learning science provide opportunities to create well-designed, learner-centered, interactive, affordable, efficient, flexible e-learning environments (Khan, 2005). Taoge (2012) has found in his survey that there was no significant difference between gender and use of the computer; how long one has been using the internet and frequency of internet usage. With respect to perceived ease of use, the study found that age and level of students had no significant relationship with perceived ease of use. With respect to perceived ease of use, the study found that age and level of students had no significant relationship with perceived ease of use. Various other researches to study the effect of demographical variables such as ownership of PC, gender, age, academic qualifications, and skill and use of the computer and Internet etc on the attitude of students towards e-learning have been carried out (Katz et al. 1995; Shashaani, 1997; Francis, 1993; Roca et al. 2006; Paris, 2004 and Berteau, 2009). Online access can affect how successful students will be in Web-based classes (Anawati & Craig, 2006). Cheng (2006) in his research found that demographical variables such as gender, computer skills are insignificant in attitude of students.

E Taghavi (2006) examined undergraduate college students' attitudes toward computers. The results showed that age was not significantly related to computer attitudes. The findings also showed that subjects with access to a home computer had higher positive attitudes toward learning and working with computers. Prior technical skills or computer experiences may be influenced by age and gender and may influence intent to use a variety of technology applications (Pituch and Lee, 2006). Keller and Cernerud (2002) have identified variables such as age, gender, previous experience of computers, technology acceptance and individual learning styles as major predictive factors when discussing acceptance of technology by students.

Thus the study aims to analyze the effect of age as well as internet access and usage on attitude towards computer technology acceptance and e-learning. Thus diverse views have been found in the literature. Thus the research gap here is to analyze the impact of age, internet access and internet usage on the students' attitude towards computer and e-learning.

OBJECTIVES OF STUDY

- To analyze the effect of age on Scale on computer and e-learning attitude (SCAELA) of students.
- To analyze the effect of internet access on Scale on computer and e-learning attitude (SCAELA) of students.
- To analyze the effect of weekly internet usage on Scale on computer and e-learning attitude (SCAELA) of students.

HYPOTHESIS OF STUDY

H₁: There is no significant difference in computer and e-learning attitude scale on basis of age.

H₂: There is no significant difference in computer and e-learning attitude scale on basis of access to internet.

H₃: There is no significant difference in computer and e-learning attitude scale on basis of weekly internet usage.

PERIOD OF STUDY

The study was carried out from July 2012 to Oct 2012 for collection of data and analysis.

RESEARCH METHODOLOGY

Participants

The study employed a survey approach to examine e-learning attitudes of the students. The target population was the students studying in Panjab University, Chandigarh, India. A total of 500 questionnaires were distributed among various faculties of the university. It included Faculty of Arts, Faculty of Science, Faculty of Business Management, Faculty of Engineering, and Faculty of Law. The departments covered in the five faculties were over 10.

Measurement

The first section focused on the demographic profile of the respondents such as sex, age, faculty of student, access to internet and frequency of internet usage. To draw a relationship between e-learning attitude and attitude towards computer a new scale; scale on computer & e-learning attitude (SCAELA) was constructed and validated. Computer Attitude Scale (CAS) by Loyd and Gressard's (1984) & 'The Attitude towards Computer Instrument (ATCI), developed by Shaft et al. (2004) were referred and modified for the purpose of current study. The scale on computer & e-learning attitude contained seventeen questions that covered variables on attitude and feelings towards computer/computer technology as well as e-learning.

DATA ANALYSIS

Overview of Data Gathered

A total of 500 questionnaires were distributed on final scrutiny 23 were dropped because they were not fully filled and the remaining 477 questionnaire were retained for the further analysis. Thus the response rate was over 95% which is an exceptionally good rate. The questionnaire data was analyzed using SPSS and Microsoft Excel and the subsequent data analysis were undertaken using statistical approach i.e. independent t-test, one-way ANOVA and correspondence analysis.

Data Analysis

The details regarding the demographic characteristics (Table 1), i.e. gender, age, faculty of study are discussed in section one. The sample size consisted of sample units from all the major faculties of Panjab University. The gender distribution in the sample survey was not biased with 45.1% males and 54.7% female respondents. The age-wise distribution depicted that the majority of the respondents were below the age of 26 years. The results also indicated that around 93% of respondents had easy access to internet. The analysis further shows that 40% of respondents spend only up to 5 hours on internet weekly, 29% spend 5-10 hours, 14% spend 10-14 hours and around 18% spend over 14 hours on internet weekly. The research also highlighted that among the respondents social networking is the most used web facility followed by use of web for educational purpose. Email and Entertainment stand at rank three and four respectively followed by online shopping at rank 5 (Figure 1).

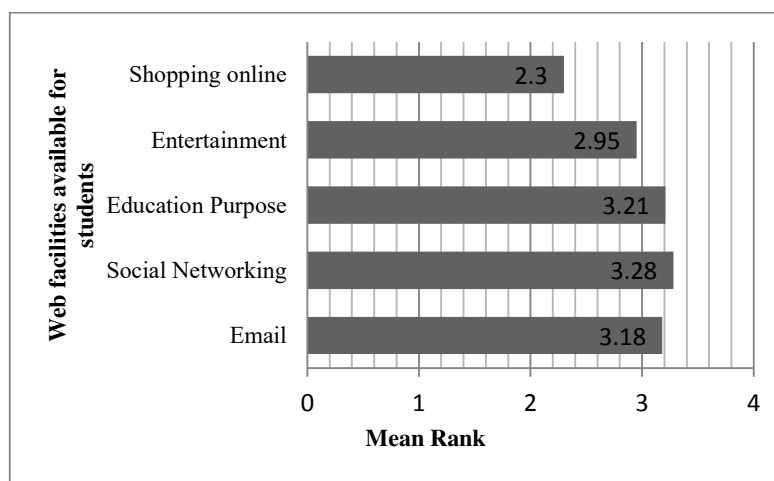
Table-1: Demographic Statistics

Descriptive Statistics	Number of Respondents	Percentage
Faculty		
Arts	93	19.5
Business Management	175	36.7
Engineering Technology	72	15.1
Law	74	15.5
Science	63	13.2
Gender*		
Male	215	45.1
Female	261	54.7
Age*		
Less than 20	160	33.5
20-26 years	299	62.7
26-30 years	8	1.7
Above 30 years	4	0.8

Sources: Primary Data.

Note: *N=477 due to unmarked fields by respondents
(Treated as Missing values in SPSS)

Figure-1: Ranking of Web Facilities



Sources: Primary Data.

The scale constructed for measurement of computer and e-learning attitude (SCAELA) was validated and further factor analyzed. The process reduced the 17 variables into four factors after PCA with varimax rotation. The four factors were named as Sentiments towards computer/computer technology, Attitude towards e-learning, Perceived usage of computers and Physical presence of teacher.

The four factors together resulted for 58% variance which is near 60% expected value. The fourth factor due to insignificant correlation with the other three was dropped. The scale showed good internal validity with Cronbach's alpha value as 0.857(>0.7) thus highly reliable. The three factors were highly reliable with Cronbach's alpha near to expected range.

Table-2: Rotated Component Matrix^a

	Component			
	1	2	3	4
V2.1	.715	.218	.062	.124
V2.2	.790	.138	.159	-.069
V2.3	.777	.124	.025	.049
V2.4	.759	.089	.017	-.112
V2.5	.716	.112	.244	-.036
V2.6	.629	.244	.341	.091
V2.7	.141	.151	.562	.266
V2.8	.083	.064	.773	.220
V2.9	.167	.175	.699	-.238
V2.10	.254	.427	.462	-.186
V2.11	.161	.616	.327	-.353
V2.12	.269	.695	.227	-.143
V2.13	.108	.591	-.052	.330
V2.14	.135	.759	.094	.117
V2.15	.172	.757	.161	-.071
V2.16	.002	.010	.145	.809
V2.17	.079	.683	.087	.034
Extraction Method: Principal Component Analysis.				
Rotation Method: Varimax with Kaiser Normalization.				
a. Rotation converged in 6 iterations				

Sources: Primary Data.

Table-3: Cronbach's Alpha

Factor	Cronbach's Alpha	Number of Items
Scale On Computer & E-Learning Attitude	.857	17
Sentiments Towards Computer / Computer Technology	.854	6
Attitude And Feelings Towards E-Learning	.803	6
Perceived Usage Of Computers	.619	4

Sources: Primary Data.

To analyze the impact of age on the Scale on computer and e-learning attitude ANOVA was conducted. An independent t-test was run to study the impact of internet access on the scale on computer and e-learning attitude. To further test if weekly usage of internet impacts the scale on computer and e-learning attitude ANOVA was used. A correspondence analysis was also conducted between the age and scale on computer and e-learning attitude to study the corresponding distances between two factors visually.

DISCUSSIONS

The three hypotheses of the study were tested. In order to test the impact of age, the test of homogeneity was run for three factors on scale on computer and e-learning attitude the p-values depicted equal group variances ($p = 0.267, 0.562, 0.833 > 0.05$).

Table-4: Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
Attitude Towards E-Learning	1.321	3	465	.267
Sentiments Towards Computer / Computer Technology	.685	3	465	.562
Perceived Usage Of Computers	.290	3	464	.833

Sources: Primary Data.

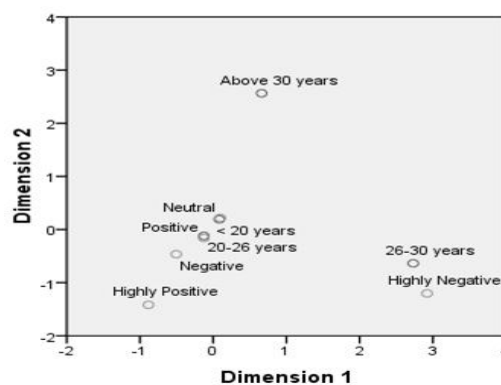
The results of ANOVA revealed that p-value for factor on attitude towards e-learning at $p < 0.05$ level [$F(3, 465) = 1.807, p = 0.145$], for factor on sentiments towards computer/computer technology [$F(3, 465) = .360, p = 0.782$] and perceived usage of computers [$F(3, 464) = .656, p = 0.759$] is greater than .05 thus the null hypothesis were accepted. There is no significant age difference on three factors of scale on computer and e-learning attitude. Thus the age is not a significant criterion that impacts the attitude towards computer technology and e-learning.

Table-5: ANOVA

		Sum of Squares	df	Mean Square	F	Sig.
Attitude Towards E-Learning	Between Groups	3.029	3	1.010	1.807	.145
	Within Groups	259.834	465	.559		
	Total	262.863	468			
Sentiments Towards Computer / Computer Technology	Between Groups	.656	3	.219	.360	.782
	Within Groups	282.483	465	.607		
	Total	283.139	468			
Perceived Usage of Computers	Between Groups	1.179	3	.393	.656	.579
	Within Groups	277.978	464	.599		
	Total	279.158	467			

Sources: Primary Data.

To further have a visual representation correspondence analysis was used for comparing the two dimensions. Figure 2 represents a visual map between Age of the respondent and the overall feeling regarding the attitude towards computer and e-learning, since Cronbach's alpha is very high a mean score was taken for all variables.

Figure-2: Correspondence Analysis Visual Map

Sources: Primary Data.

The results show that most of the respondents in the age group of less than 20 years or 20-26 years were closer to positive or neutral attitude towards computer and e-learning attitude. The age groups 26-30 years were more nearer to negative attitude towards computer and e-learning attitude. The analysis of the impact of internet access on the computer and e-learning attitude was tested by conducting an independent t-test.

All the factors were tested independently for analyzing the impact. The results revealed that for the test of homogeneity, variances of group are equal for Attitude towards e-learning, sentiments towards computer/computer technology, Perceived usage of computers at .05 level (0.571, 0.350, 0.185 > .05). Thus the table can be seen for significant value where the equal variances are assumed.

Table-6: Group Statistics

	Access to Internet	N	Mean	Std. Deviation	Std. Error Mean
Attitude Towards E-Learning	Yes	438	3.7253	.75900	.03627
	No	36	3.6500	.70244	.11707
Sentiments Towards Computer / Computer Technology	Yes	438	4.033	.7585	.0362
	No	36	3.497	.8524	.1421
Perceived Usage of Computers	Yes	438	3.5413	.78499	.03751
	No	35	3.6114	.66500	.11240

Sources: Primary Data.

The table shows that at $p < 0.05$ level [$t = 0.576$, $p = 0.565$] for attitude towards e-learning, [$t = 4.032$, $p = .000$] for sentiments towards computer/computer technology and [$t = -.514$, $p = .608$] for perceived usage of computers.

Table-7: Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Attitude Towards E-Learning	Equal variances assumed	.322	.571	.576	472	.565	.07534	.13089	-.18187	.33255
	Equal variances not assumed			.615	42.009	.542	.07534	.12256	-.17200	.32268
Sentiments Towards Computer / Computer Technology	Equal variances assumed	.877	.350	4.032	472	.000	.5354	.1328	.2745	.7963
	Equal variances not assumed			3.652	39.690	.001	.5354	.1466	.2390	.8318
Perceived Usage Of Computers	Equal variances assumed	1.760	.185	-.514	471	.608	-.07010	.13647	-.33828	.19807
	Equal variances not assumed			-.592	41.953	.557	-.07010	.11850	-.30925	.16904

Sources: Primary Data.

The p-values suggest that attitude towards e-learning and perceived usage of computer is not affected by access to internet as null hypothesis is accepted whereas the sentiment towards computer/computer technology is significantly related to the access to internet.

Hypothesis three was tested using ANOVA to test if significant relationship exists between weekly internet usage and factors of scale on computer and e-learning attitude. The results for the test of homogeneity for three factors on scale on computer and e-learning attitude showed that equal group variances exist ($p = 0.430, 0.366, 0.410 > 0.05$). The results of ANOVA at $p < 0.05$ level for attitude towards e-learning [$F(3, 468) = .059, p = 0.981$], for factor on sentiments towards computer/computer technology [$F(3, 468) = 9.926, p = .000$] and perceived usage of computers [$F(3, 467) = 9.191, p = 0.000$].

The results here show that there is significant effect of weekly usage of internet on respondent's sentiments towards computer/computer technology and perceived usage of computers whereas the attitude towards e-learning had no significant impact of weekly internet usage.

Table-8: Test of Homogeneity of Variances

	Levene Statistic	df1	df2	Sig.
Attitude Towards E-Learning	.923	3	468	.430
Sentiments Towards Computer / Computer Technology	1.059	3	468	.366
Perceived Usage of Computers	.964	3	467	.410

Sources: Primary Data.

Table-9: ANOVA

		Sum of Squares	Df	Mean Square	F	Sig.
Attitude Towards E-Learning	Between Groups	.101	3	.034	.059	.981
	Within Groups	267.086	468	.571		
	Total	267.187	471			
Sentiments Towards Computer / Computer Technology	Between Groups	17.127	3	5.709	9.926	.000
	Within Groups	269.176	468	.575		
	Total	286.303	471			
Perceived Usage of Computers	Between Groups	15.753	3	5.251	9.191	.000
	Within Groups	266.799	467	.571		
	Total	282.552	470			

Sources: Primary Data.

CONCLUSIONS

The main contributions of this study are fourfold. First, it successfully uses a newly constructed scale for measuring computer and e-learning attitude. Our scale successfully measures the attitude towards computer technology and e-learning. Second, this research also reveals that age is not a significant criterion that affects computer attitude and e-learning attitude. Third, the results revealed that attitude towards e-learning and perceived usage of computer is not affected by access to internet whereas the sentiment towards computer / computer technology is significantly related to the access to internet. Fourth, there is a significant effect of weekly usage of internet on respondent's sentiments towards computer / computer technology and perceived usage of computers whereas the attitude towards e-learning had no significant impact of weekly internet usage. These results can further be used as inputs for proper implementation of e-learning process at any education setting.

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MOBILE MONEY AS M-COMMERCE MACHINERY: TECHNOLOGY ACCEPTANCE MODEL ANALYSIS WITH REFERENCE TO UDAIPUR USERS AT RAJASTHAN

Ashish Adholiya³⁰ Pankaj Dave³¹ Naidev Singh³²

ABSTRACT

This paper is deliberate to inspect the variables which affect customer adoption for mobile money services with integration of TAM. User acceptance of technology is an important field of study, because TAM model is structurally capable to capture the attention of users for information system application and its usability. This research is centered to those respondents who are using the mobile money of banking services. So that 120 respondents are identified for research purpose. These respondents are from urban part of Udaipur, Rajasthan.

Their opinions were collected from well defined and structured questionnaire and the quality of responses is measured by reliability test. Collected data was analyzed by factor analysis and correlation analysis. In factor analysis principal component analysis with varimax rotation is used and correlation matrix is used to identify the relationship between the various factors of mobile money services and customer adoption. This study may guide mobile money transfer service providers and MNOs about customer preferences while adopting the technology, so they can better improve the service and relative advantage by emphasizing on the suggested issues.

KEYWORDS

Mobile Money, TAM, Information System, Mobile Banking, Mobile Payments, Mobile Network Operators etc.

INTRODUCTION

Transferring money through mobile is next generation of money transaction, which is shifting money channel from traditional providers to wireless carriers and benefiting consumers by technological advancements and lower cost services. Money on mobile, M-Commerce machinery has enabled consumers to access financial services offered by formal providers outside of traditional bank branches.

What is Mobile Money?

Mobile money refers to money stored using Subscriber's Identity Module (SIM) in a mobile phone as an identifier as opposed to an account number in conventional banking. Notational equivalent is in value issued by an entity and is kept in a value account on the SIM within the mobile phone that is also used to transmit transfer or payment instructions, while corresponding cash value is safety held elsewhere, normally in a bank for the ease. The balance on the value account can be accessed via the mobile phone, which is also used to transmit instant transfer or payment instructions.

In recent years, number of mobile users is rapidly increased due to fallen price of mobile handsets and introduction of prepaid cards with lower tariffs. Apart of these issues one major issue is that now a day's customers have positive attitude for adopting new technologies which can facilitate any of their regular use services. One of such uses is the use of mobile phone in financial services like mobile banking, mobile money etc. These major technologies enabling people to conduct various activities like collect, send and receive information regarding their transaction in minutes wherever they are.

Mobile telephony offers tremendous promises to facilitate the flow of money among urban, rural and poor families at much lower costs, bringing the bank to those currently unbanked. At the very edge of the range of possibilities, the traditional business model can be blown to bits and financial institutions will be forced to reinvent themselves as M-commerce organizations. Mobile payments are defined as the use of a mobile device to conduct a payment transaction in which money or funds are transferred from a payer to a receiver via an intermediary or directly without an intermediary. Due to the all-encompassing nature of this definition, it should be made clear that a distinction exists between mobile payments and mobile banking.

The continuous efforts of financial institutions, mobile network operators and mobile payment service providers in promoting and offering mobile payment options had definitely spreading the availability of mobile transaction service and application but the issue which is lacking is that is customer acceptance for this innovation which is affecting its success.

The need and opportunity for mobile money are shared by businesses and their customers. For businesses across industries, the mobile channel offers the opportunity to reach new customers as well as to provide better service to existing customers. With the widespread benefits of mobile transaction for their customer still some crucial factor are there which are affecting the m-money concept. This paper is projected to examine those issues which affect the mobile money uses by the customer of Udaipur, Rajasthan.

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After reviewing the literature, it was found that adoption of new technology have different attributes rather than intention to use the specific technology or service. Integration of TAM will focus on the attitude explanations of intention to use a specific technology or service, because this model shows robustness for predicting user acceptance (Bertrand and Bouchard, 2008).

REVIEW OF LITERATURE

Digitization in financial services has enabled financial institutions to offer multiple configurations, goals and characteristics to their customers. Digital mobility technologies are making the service more affordable and handy for every user of every segment, means we can say that it is making the dish spicier.

Application of mobile money transfer service in electronic payment and financial institutions is a characteristic of broader concept referred as mobile money. Even though mobile money has not been well defined in literature it can be said to include all the various initiatives (long-distance remittance, micro-payments, and informal air-time battering schemes) aimed at bringing financial services to the unbanked using mobile technology.

According to **Jenkins (2008)** “Mobile Money can be defined as money that can be assessed and used via mobile phone.” Moreover, it is defined as a “type of execution of financial services in the course of which - within an electronic procedure- the customer uses mobile communication techniques in conjunction with mobile devices”. The technologies generally used for mobile money transaction are Interactive Voice Response (IVR), Standalone Mobile Application Clients, Short Messaging Service (SMS) and Wireless Application Protocol (WAP).

It was believed that electronic money will displace paper money and face-to-face transaction. This has not materialized yet. Will mobile money replace the need for cash? To answer this question we will need to understand the extent to which users are prepared to accept the electronic money as a means of exchange (**Mas and Kumar, 2008**). The two key functions of money are: as a store of value and a means of exchange.

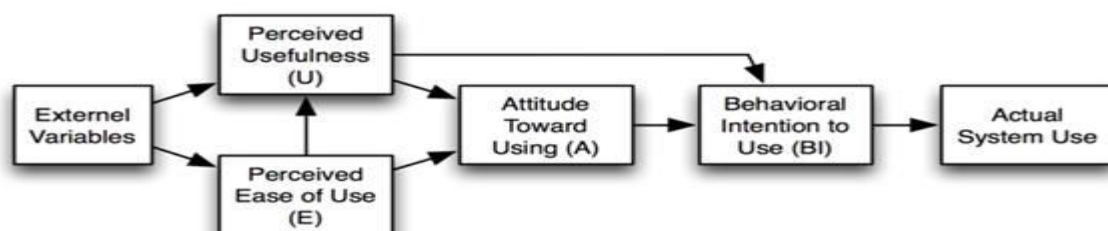
The theory of planned behavior (**Azjen, 1985**) and the unified theory of acceptance and use of technology (UTAUT) (**Venkatesh et al., 2003**) have been used for the last two decades to explain possible consumer behavior with respect to adoption and acceptance patterns of new technologies and innovations. Several researchers have sought to develop constructs that affect consumers' behavior when deciding on the adoption of mobile services by applying these existing information system theories and models (Wu and Wang, 2005; Hung et al., 2004). Studies on mobile services have shown that the application of the above information system theories and models have extended to valued added mobile services (e.g., **Carlsson et al., 2006; Chen, 2008**). **Berry (1990)** mentioned that there are ten 'Quality Values' which influence customer behavior i.e. Quality, Value, Timeliness, Efficiency, Ease of Access, Environment, Inter-departmental Teamwork, Front line Service Behavior, Commitment to the Customer and Innovation.

According to **Donatus Mathenge Githui (2011)**, issues like speed, advertising, compatibility, self-efficacy, ease of use, usefulness and intention play crucial role in adoption of mobile money transfer. In order to attract an increasing number of people to mobile money transfer services, service providers should improve the quality of this service by improving the speed of service, offer more information and advertising as proposed by virtue ethics, enhance users' ability, experience and knowledge about mobile transfer services, educate their staff, as well as provide more funding for conducting research about users' behavior at different periods of time as proposed by ethical learning and growth theory.

However, customers have different levels of behavior as they have different attitudes and experiences as perceived from the services delivered by companies.

So, to investigate the customer behavior for adoption of mobile money transfer we had integrated TAM model. The Technology Acceptance Model (TAM) is established on the premise that the constructs, perceived usefulness and perceived ease of use are fundamental determinants of system adoption and use (**Davis, 1989**). TAM has received praises from earlier researchers on its contribution towards our understanding into consumer behavior. For instance, **Lu et al., (2003, p.207)** states that: “Throughout the years, TAM has received extensive empirical support through validations, applications and replications for its power to predict use of information systems”. Also, **Legris et al., (2003, p.202)** conclude that “TAM has proven to be a useful theoretical model in helping to understand and explain user behavior in information system implementation”.

Figure-1: Technology Acceptance Model (Davis, 1989)



Sources: Authors Compilation.

In this study we had tried to assess the issues which affect the customer adoption for new technology under technology acceptance model. Therefore, the key determinants perceived usefulness and perceived ease of use are positioned under major consideration including other constructs like trust, cost, confidentiality, authorization and risk etc.

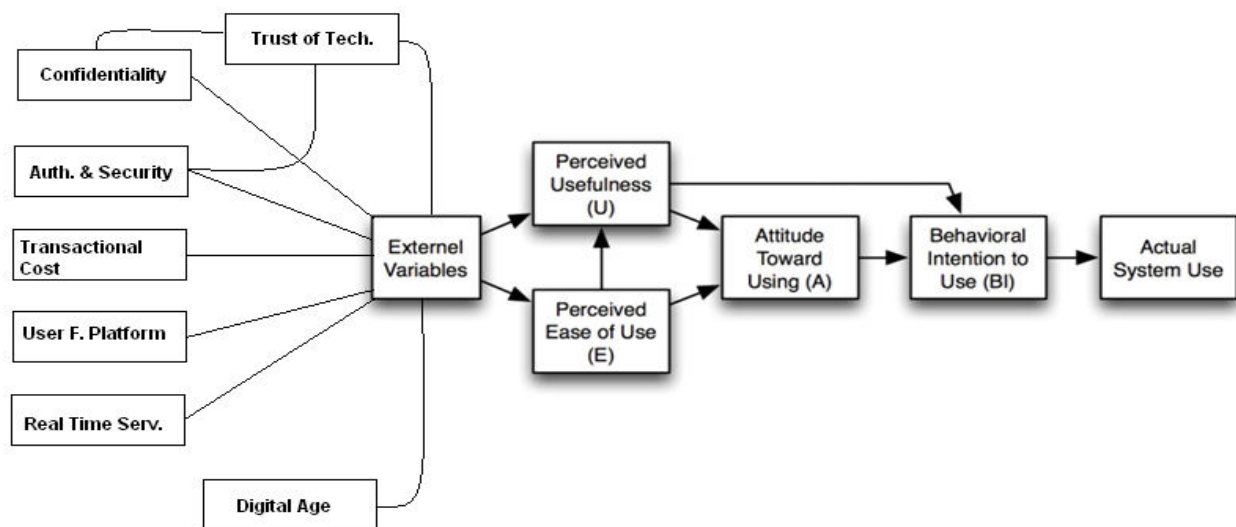
OBJECTIVES OF STUDY

TAM postulate that perceived ease of use and perceived usefulness determine the adopter's attitude toward adopting the system or service. Some of the following issues like confidentiality, cost, real time availability, authorization and perceived future benefits are also affecting the adoption of mobile money transfer service. So the following are the declared objectives of this study:

- To examine the TAM model determinants impact on customer for adoption of mobile money.
- To examine the customer adoption of mobile money services under trust, transactional cost, confidentiality, authorization and risk like attributes.
- To examine the customer changing attitude (digital age) towards adoption of new technological innovation like mobile money with special reference to perceived benefits future attribute.

RESEARCH MODEL AND HYPOTHESIS OF STUDY

Figure-2: Extended Technology Acceptance Model



Sources: Authors Compilation.

This model integrates traditional technology acceptance model with some new external variables like digital age, confidentiality, transactional cost, real time service availability, trust on technology and authorization and security. All this variables directly or indirectly affects customer adoption for new technology like mobile money transfer. All this variables are extracted from review of literature and discussion made with the respondents who are using mobile money services. Hypotheses formulated are as follows:

- H₁:** Perceived Usefulness direct to higher behavioral intention to use mobile money service.
- H₂:** Perceived ease of use positively affects the behavioral intentions for use of mobile money transfer.
- H₃:** Higher trust on technology or service will lead to positive direct to use of mobile money transfer.
- H₄:** Higher confidentiality will lead to higher perceived trust to use mobile money transfer service.
- H₅:** Higher authorization and improved security will lead to higher perceived trust to use mobile money transfer service.
- H₆:** Higher perceived risk negatively affects the adoption behavior of customer for mobile money transfer service.
- H₇:** Higher transactional cost negatively affects the adoption behavior of customer for mobile money transfer service.
- H₈:** User friendly application platform of technology positively affects the adoption behavior of customer for MMT.
- H₉:** Service availability in real time atmosphere by service provider positively affects the adoption behavior of customer for MMT.
- H₁₀:** Positivity in behavior of customer is increased for adoption of new technology due to digital age.

TOOLS, METHODS AND TECHNIQUES FOR DATA ANALYSIS

This study is aimed to collect information about ten possible factors (Perceived usefulness, Perceived ease of use, trust, confidentiality, authorization and security, perceived risk, user friendly platform, service availability and digital age) impact on customer adoption for MMTs. So it is taken into consideration that respondents must be aware and using the mobile money transfer services. All respondents are selected on convenience sampling method due to lack of proper information and time constraint.

Questionnaire was structured by the proper knowledge configuration and integrated suggestion of some on bank employees and professionals facilitating the mobile money or banking related services. Numbers of responses were recorded based on five point likert scale ranging from strongly agree to strongly disagree and method of data collection was through personal mode. Collected data was analyzed through SPSS 19.0, particularly; descriptive statistics, reliability test, factor analysis and correlation according to the requirement of the study.

Demographics of Respondents

Respondent's Descriptive Statistics Is Illustrated Below:

Table-1: Gender wise Mobile Money Transfer [Descriptive Statistics]

Particulars	Frequency	Percent	Valid Percent	Cumulative Percent
Gender				
Female	39	32.5	32.5	32.5
Male	81	67.5	67.5	100.0
Total	120	100.0	100.0	

Sources: Survey.

Above Table1, reveals that in Udaipur Rajasthan, out of 120 selected respondents 67.5 percent is male respondents and 32.5 percent is female. Mobile money transfer facility is widely accepted by male user, this represents that male have more positive behavior for accepting new technologies.

Table-2: Age Group wise Mobile Money Transfer [Descriptive Statistics]

Particulars	Frequency	Percent	Valid Percent	Cumulative Percent
Age Group				
Below 25	22	18.33	18.33	18.33
25-35	52	43.33	43.33	61.66
36-50	28	23.34	23.34	85.00
51-60	18	15.00	15.00	100.00
Total	120	100.00	100.00	

Sources: Survey.

Above Table2, reveals that in Udaipur Rajasthan, major acceptance for mobile money transfer facility is given by 25-35 age group (43.33%) and then by 36-50 age group (23.34%). The respondents of these age group people have more positive behavior for accepting mobile money transfer.

Table-3: Education / Qualification Wise Mobile Money Transfer [Descriptive Statistics]

Particulars	Frequency	Percent	Valid Percent	Cumulative Percent
Education / Qualification Group				
<HSC	8	6.67	6.67	6.67
HSC	17	14.16	14.16	20.83
Graduate	42	35.00	35.00	55.83
Post Graduate	53	44.17	44.17	100.00
Total	120	100.00	100.00	

Sources: Survey.

Above Table 3, reveals that in Udaipur Rajasthan, major acceptance for mobile money transfer facility is given by graduate (35%) and postgraduate (44.17%) group. So it can be recognized that this service is widely used and accepted by those respondents which are qualified or having knowledge about technology.

Table-4: Profession / Occupation wise Mobile Money Transfer [Descriptive Statistics]

Particulars	Frequency	Percent	Valid Percent	Cumulative Percent
Profession / Occupation				
Employee	20	16.67	16.67	16.67
Businessman	52	43.33	43.33	60.00
Retired	2	1.67	1.67	61.67
Student	20	16.67	16.67	78.34

Professional	26	21.66	21.66	100.00
Total	120	100.00	100.00	

Sources: Survey.

According to Table4, it can be recognized that mobile money service is famous between businessmen (43.33%) because it helps to facilitate their transactions. And then professional (21.66%) and Students or employees (16.67%) are using this service. So this service is accepted by that group of people who are working are ready to accept new trends in technologies and some are accepting it due to their need.

Table-5: Income Group wise Mobile Money Transfer [Descriptive Statistics]

Particulars	Frequency	Percent	Valid Percent	Cumulative Percent
Income Group [Per Annum]				
<1 Lakh	12	10.00	10.00	10.00
1 to 3 Lakh	23	19.17	19.17	29.17
3 to 8 Lakh	29	24.17	24.17	53.34
8 to 15 Lakh	15	12.50	12.50	65.84
15 to 25 Lakh	16	13.33	13.33	79.17
>25 Lakh	13	10.83	10.83	90.00
Dependents	12	10.00	10.00	100.00
Total	120	100.0	100.0	

Sources: Survey.

As of Table 5, it can be identified that respondents of group of 3 to 8 Lakh (24.17%) is major user of mobile money services. So it can be recognized that due to small amount transaction a medium income group person preferably using this service as transaction machinery.

Reliability Test

This test is used to check the consistency of items pertaining to each dimensions including reliability of the model. According to Nunnally (1978) Cronbach's alpha should be 0.700 or above, but some studies also consider 0.600 acceptable (Garson, 2002; Kenova and Jonasson 2006). It is the most popularly used measure of internal consistency check. Table6 indicates that Cronbach's alpha for individual items of perceived usefulness (0.86); Perceived ease of use (0.82); Trust on technology (0.71); Confidentiality (0.73); Authorization and Security (0.81); Perceived Risk (0.79); Transactional Cost (0.71); User Friendly Platform (0.85); Real Time Service Availability (0.88) and Digital Age Life (0.70) were found to be within limits for further analysis.

Table-6: Reliability Statistics of Factors Affecting Customers for Mobile Money Adoption [n=120]

Constructs (Items)	Mean	Standard Deviation	Cronbach's Alpha (α)
Perceived Usefulness			
Made Financial Transaction Easier	4.10	0.80	0.86
Enhances Transaction Capabilities	4.34	0.78	
Eliminates Physical Barriers	4.20	0.76	
All Payment Incorporation Into Single Device	4.41	0.78	
Perceived Ease Of Use			
Easy Than Tradition Transaction Methods	4.03	1.00	0.82
Mobile Applications Are More Easy To Perform	3.80	1.01	
Keep In Touch With Bank Account	4.00	0.85	
Trust On Technology			
Trustworthy And Reliable	3.82	1.02	0.71
Enhances Capabilities And Ease To Conduct	4.03	1.00	
Confidentiality			
Offers Safe And Secure Transaction Service	3.90	0.85	0.73
Instant Messaging Of Transaction	4.40	0.92	
Authorization And Security			
Systematic Authorization And Verification	3.89	0.95	0.81
Improved Account Management Facility	3.92	1.03	
Perceived Risk			
Found Risk Associated	3.96	0.94	0.79

Found Not Reliable	3.85	0.96	
Transactional Cost			
Mobile Service Cost A Lot	3.30	0.94	0.71
Phone And Communication Cost Are Barriers	3.40	0.90	
User Friendly Platform			
Applications Are User Friendly	3.65	1.06	0.85
Handy And Platform Independency	3.50	0.92	
Smart Phone Make Service More Easier	3.69	0.89	
Real Time Service Availability			
Any Where Accessibility	4.20	0.94	0.88
Remote Location Mobile Network Reach	3.89	0.99	
Digital Age Life			
Anywhere Technology Uses Pushes To Use It	3.60	0.85	0.70

Sources: Primary Data, Questionnaire.

Factor Analysis

This research incorporates factor analysis as a criterion for validity. In this study factor analysis is used to identify factors affecting customer adoption of Mobile Money Transfer Service. The Eigen values and sum of squares loading for factors are displayed in Table 7.

Table-7: Total Variance Explained

Components	Initial Eigen Values			Extraction Sum of Squares Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.795	17.955	17.955			
2	1.545	15.454	33.409	1.795	17.955	17.955
3	1.152	11.521	44.93	1.545	15.454	33.409
4	1.023	10.233	55.163	1.152	11.521	44.93
5	1.021	10.211	65.374	1.023	10.233	55.163
6	1.011	10.113	75.487	1.021	10.211	65.374
7	1.001	10.011	85.498	1.011	10.113	75.487
8	0.552	5.524	91.022	1.001	10.011	85.498
9	0.533	5.333	96.355			
10	0.364	3.645	100.00			

Sources: Primary Data.

Note: Extraction Method: Principal Component Analysis, Using SPSS 19.0*

Eigen values are the variance of the factors. The Eigen Values of a factor represents the amount of total variance explained by that factor. Any factor with more than or equal to 1.0 Eigen value must be consider for further factor analysis. The seven factors identified in this study explain 85.498% of total variance. The first factor explained 17.95% of this variance, second factor 15.45%, third factor 11.52%, fourth factor 10.23%, fifth factor explained 10.21%, Sixth factor explained 10.11% and seventh factor explained 10.01% of this variance. The percentage of variance combines for succeeding variables to make up 100% variance. Seven factors are acknowledged for the factor analysis using the Eigen value criteria. Furthermore, Table 7 shows the extracted sum of square loading for the seven factors. The values are calculated on the basis of the common variance, which is smaller than the total variance, incorporating 85.49% of variance. Rotated sum of square loadings depict the distribution of the variance after varimax rotation. Varimax rotation tries to maximize the variance of each of the factors, so the total amount of variance accounted for is redistributed over the two extracted factors. The study incorporates principal component analysis with Varimax rotation. Factor loading, Composite Reliability and Average Variance or extracted variables are represented in Table8.

Table-8: Factor Loading, Composite Reliability and Average Variance Extracted

Variables	Constructs	Factor Loading	Composite Reliability	Average Variance Extracted
Perceived Usefulness (PU)	PU1	.693	0.89	0.78
	PU2	.642		
	PU3	.852		
	PU4	.754		
Perceived Ease of Use (PEU)	PEU1	.763	0.81	0.80
	PEU2	.717		
	PEU3	.823		
Confidentiality (CO)	CO1	.724	0.79	0.78
	CO2	.829		
Perceived Risk (PR)	PR1	.875	0.85	0.76
	PR2	.896		

Transactional Cost (TC)	TC1	.739	0.87	0.84
	TC2	.812		
Trust on Technology (TT)	TT1	.753	0.82	0.74
	TT2	.756		
Authorization and Security (AS)	AS1	.698	0.80	0.76
	AS2	.769		

Sources: Primary Data.

Note: Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

According to Fornell, C., and Larcker, D. F., (1981) recommendations: (1) Factor loadings greater than 0.50 were considered very significant, (2) Composite reliability greater than 0.8 were considered very significant, and (3) Average variance extracted greater than 0.5 were considered very significant. Accordingly, all factors in the measurement model had adequate reliability and convergent validity. All the factor loading of the items in this research model are greater than 0.64 which shows acceptable level of correlation between the variables and the respective factors. Composite reliability of six factors is greater than 0.80 only one factor named confidentiality has composite reliability 0.79. Average variance for all the factors is greater than 0.70. See Table 8 for the detailed statistics.

Correlation Analysis

Table-9: Correlation between Mobile Money Transfer Service Factors and Customer Adoption

Factors of Mobile Money Transfer Service	Pearson Correlation (r)	Significance (2-tailed)
Perceived Usefulness	0.212(*)	0.003
Perceived ease of Use	0.486(**)	0.000
Trust on technology	0.526(**)	0.000
Confidentiality	0.124(*)	0.002
Authorization and Security	0.379(**)	0.006
Perceived Risk	0.585(**)	0.005
Transactional Cost	0.177(*)	0.031
User Friendly Platform	0.203(*)	0.011
Real Time Service Availability	0.492(**)	0.009
Digital Age Life	0.604(**)	0.000

Sources: Primary Data.

Note: *r* is Pearson correlation coefficient,

*Correlation is significant at the 0.05 level (2-tailed),

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

Table 9 represents correlation between customer adoption and mobile money transfer service factors. Positive correlation represents positive linkage between factors and customer adoption. By the analysis it can be identified that all the hypotheses are positive can be accepted.

Table-10: Hypothesis Acceptance or Rejection

Hypotheses	Relationship (+ / -)	Supported / Rejected
H1	+	Supported
H2	+	Supported
H3	+	Supported
H4	+	Supported
H5	+	Supported
H6	+	Supported
H7	+	Supported
H8	+	Supported
H9	+	Supported
H10	+	Supported

Sources: Primary Data.

It can be analyzed that all the variables significantly affects the customer adoption for mobile money transfer services.

DISCUSSION AND IMPLICATIONS

The main issue is to be discovered in this study was to identify various factors impact on customer adoption of mobile money transfer service with integration to TAM model. This study reveals that all the factors of TAM and extended factors are positively correlated with customer adoption. In following areas because customers are very much concerns about them that are:

- Security and reduction in risk through mobile devices are building the customer trust in mobile money transfer services. So companies must be careful about the issue. Respondents are also asking to improve authorization method asking for making it real time.
- Mobile money is an advance way to control your transaction and bank a/c. Any of the service which can facilitate your transaction will get positive response from the customers.
- Refined technical infrastructure should be developed in order to ensure reliable and timely provision of services to customers.
- User friendliness behavior of mobile device as well as service pushes customer to opt new technology.
- The major issues which are directly affecting mobile money transfer services positively that is real time availability and low transactional cost.
- Mobile money transfer service is still centric to only those customers who are technology savvy or we can say technologically educated.
- Mostly students, professionals and businessmen are using this technology for their transaction facilitation but remaining crowd is still not using it. SO more features and advancements to tap them is required.

Although this study provides interesting insights into factors affecting the customers for mobile money transfer service uses, it has some limitation. First, the uses of mobile money transfer with reference to Udaipur, Rajasthan user is still in development stage. Second, to identify the crucial factors we targeted only those respondents who are using the mobile money services. So the factors which affect illiterate customers to adopt this technology are not established by this research.

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