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Empowered Leadership Demystified: 
A Case of People Centric Practicing Organization

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Abstract

Experience has shown that developing human resources often results in achieving a sustained organizational growth*. Various strategies are being adopted by business organizations in this regard. One also sees a paradigm shift from an approach understood as 'welfare approach' to that of an approach commonly known as the 'empowerment approach'. This approach of employee empowerment has seen interesting outcomes and hence has been accepted almost all across the world**. The paper is an empirical study of an Indian industry. It highlights some unique strategies adopted for managing human resources in this industry. The efforts have paid large dividends to the company. The workforce is committed as well as efficient. The business organization has succeeded and has been able to achieve global standards. The present research work makes an attempt to advocate the cause of employee empowerment and calls upon practitioners to shift their practices from that of welfare orientation to empowerment. The article also makes an attempt to demystify the concept of employee empowerment, and the micro benefits of such people centric practices, per se***.

Key words: Empowerment, High performance work systems, Leadership, Ownership culture

Introduction

The 21st Century Corporations will find it hard to survive, let alone flourish unless they get better work from their employees. This does not necessarily mean harder work or more and extra work. What it does necessarily mean are employees who learn to take active responsibility for their work behavior are the one who survive in present days' business (Pierce, Stephem, Susan, 1991: Rothstein, 1995: Smilor, 1996: Hewitt Associates Research, 1998: Marty ONeill, 1999:...
Reynolds, 1999). The rules of managing human resources and developing the organization must change because the game is changed, and if an organization aspires for fundamental changes, it must first change its own fundamentals. Fundamentals, I mean the very approaches and workplace systems that are adopted in managing and developing the human resources. The old traditional practices and systems like hierarchical reporting, boss centric leadership, red-tapism, bureaucracy, closed door approach, single way up-down communication, highly structured organizational design, authoritarian leadership and the like are systems which prove to damage the system than do better (Dobbs, 1993: Argyris, Chris 1998: Beyster, 1999: Bagali, 2001.) Indeed, listen to the people in truly great companies talk about their achievements and you will hear little about earnings per share and more about their association with the company (Kellogg Leadership Studies Project, 1996, 'A Comprehensive Report on Leadership in 300 US Corporate', between 1996-1998).

Further, in pursuit of continued excellence and the urge to stay top in the business makes organization adopts various innovative strategies towards development and management of human resources. It is necessary that these strategies match global standards. Of all areas of functioning in the organization, human resource development and management is of utmost important, and organization placing an increasing importance to human resources development and management reflects the success for longer span of time. An innovative company often follows certain outstanding and path breaking human resource practices (Pierce, Stephen, Susan, 1991: Perry 1992: Mackin, and Rodgers, 1996). In this exercise, empowerment of employees is being increasingly seen as a winning strategy to cope with challenges like open market and the removal of trade and other entry barriers that industrial houses are witnessing today. Creating an empowered employee workplace culture requires systematic approach. What also matters is when to empower employees and can culture at workplace be changed and if at all how. Thus, Demystifying Employee Empowerment: The Model of a Practising Indian Organization. What the paper tries to highlight is how it was possible for the present organization under the preview of the study to develop an outstanding workplace and path breaking human resource practices, per se, as also, the exercise in empowering employees for meeting the turbulent challenges, while remaining profitably in the business.

**Defining Empowerment**

As Rosabeth Moss Kanter (1977) a Professor at Harvard Business School, and a pioneer in the area of organizational empowerment and related work, defines, the concept empowerment as “giving power to people who operate at an advantage in the organisation success”. She conceives of a continuum from powerless to empower and encourages organisations to help people move towards the empowered end. She was the one who propagated the concept of empowerment from sociological perceptive and later in the Industrial context. Bowen, D.E. and Lawler, E.E (1995) Associate Professor of Management, Arizona State University and Director, Centre for Effective Organisation,
University of Southern California, have done extensive work in the area of empowerment field and it dates from 1970 to 2000 in US Fortune Organisations. They define empowerment in terms of four organizational ingredients:

- Rewards based on organizational performance;
- Information about the organizational performance, and
- Power to make decisions that influence organizational direction and performance.

**Methodology**

**Objectives of the Enquiry**
The investigation is an empirical research work to understand how a model company can be created with innovative workplace programme and policies through empowering employees. The study tried to differentiate between various human resource strategies adopted in empowering employees, and how these strategies differed from other management practices. An effort was made to understand all that contributed to empowerment--the systems, practices, policy and the leadership. Further it was to understand how these management practices impacted upon employee behavior, performance and Empowerment.

**Research Design**
The study used explorative and descriptive design, which befits into the pattern of investigation. The study also understood and fleshed out to explain the technical and commercial context within which the firm operated in terms of environmental certainty-uncertainty, stability and resource munificence. The study looked at the timeline described for the change process that the firm went through (if that is what occurred), or was the firm set-up to be empowered from the beginning. Further, it was to understand what things changed early, what things changed later and how well did they triangulate? The current practices of developing and managing human resources were explored and a description of all these practices was analyzed through appropriate questionnaire and schedule.

**Sampling Population**
The study of empowerment is a holistic approach involving everyone in the organisation. The demographic data and Human Resources information put forth:

**Table No. 01: Demographic Data of Respondents**

<table>
<thead>
<tr>
<th>Sr No</th>
<th>Department</th>
<th>No of Employees</th>
<th>% of Responses</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Administration</td>
<td>06</td>
<td>10</td>
</tr>
<tr>
<td>2</td>
<td>Assembly</td>
<td>08</td>
<td>13</td>
</tr>
<tr>
<td>3</td>
<td>Manufacturing</td>
<td>33</td>
<td>55</td>
</tr>
<tr>
<td>4</td>
<td>Workshops</td>
<td>06</td>
<td>10</td>
</tr>
<tr>
<td>5</td>
<td>Packing</td>
<td>03</td>
<td>05</td>
</tr>
<tr>
<td>6</td>
<td>R and D</td>
<td>04</td>
<td>06</td>
</tr>
<tr>
<td>Age wise</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>&lt;30</td>
<td>25</td>
<td>41.7</td>
</tr>
<tr>
<td>2</td>
<td>30-39</td>
<td>25</td>
<td>41.7</td>
</tr>
<tr>
<td>3</td>
<td>40+</td>
<td>10</td>
<td>16.7</td>
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<tr>
<td>Education wise</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Upto SSLC/10th</td>
<td>24</td>
<td>40.0</td>
</tr>
<tr>
<td>2</td>
<td>PU/BA/BSc</td>
<td>20</td>
<td>33.3</td>
</tr>
<tr>
<td>3</td>
<td>PG/Engg/Dip</td>
<td>16</td>
<td>26.7</td>
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<tr>
<td>Work Experience</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>&lt; 10 years</td>
<td>33</td>
<td>55.0</td>
</tr>
<tr>
<td>2</td>
<td>10+ years</td>
<td>27</td>
<td>45.0</td>
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NB: Another section of respondent in the study was the CEO and MD. The analysis in the paper includes that of Employees excluding CEO / MD. Since a trainee strongly expressed to take part in the study, he was also included.
Data Collection
The model of data collection adopted for employee category includes six stages, including the pilot study. An exhaustive empowerment questionnaire was put to test. The questionnaire was administered to all employees who participated. Several empowering angles were probed and a total of nearly 125 odd areas were identified, and measured on five point Likert responses format, viz: Strongly agree (1); Agree (2); Can't say (3); Disagree (4); and Strongly disagree (5); The study used three distinct methodologies in the study, viz: a) Pre-pilot observation; b) Pilot study; and c) Final observation.

a) Pre-pilot observation
The study observed and identified the management practices that were thought to influence business success-broad areas such as: communication, leadership, transparency, decision-making, participation, management ethos, organizational politics, knowledge sharing, ownership culture and the like. An initial micro level discussion with employees was held from time to time.

b) Pilot study
A pilot study with specific practices was undertaken with few enquiry areas identified and put to test. I pursued in-depth observation of management practices that were pre-observed, which played a major role in enhancing or weakening a company's performance. The pilot study allowed verifying and extending the larger survey findings. Pilot study also paved way for further exploration of new areas and few areas of in-significance were ignored.

c) Final observation
At final stage, an exhaustive questionnaire / schedule was administered focusing all valid areas of empowerment and the extent of such organizational practices in growth of the company and creating a winning workforce, per se.

Multi Stage Data Collection

The collection and examining of data was done in three stages after communicating to all the employees the purpose of the study and the benefits it comes out for the individual, and organisation. The study injected case-by-case basis, with a sense of purpose and direction at all the three stages of data collection as follows:
Stage 1: In first stage, Questionnaires and schedules were drawn up after identifying the relevant empowerment angles and put to test on a five-point scale. This was the first stage, where each employee was asked to express his/her opinion on five-point scale.
Stage 2: In second stage, formal and informal observation and discussions at workplace based on the responses expressed regarding the practices in vogue was undertaken. In fact, at this stage, each participating respondent was met personally, and was asked through personal discussion regarding his opinion and feelings on empowering systems. At this stage, more emphasis was laid on 'why' such a
system / practice was followed and the aftermath benefits of such practices. It was more of fact finding and knowing the feelings, analyzing views and opinion based on responses expressed through questionnaire. A series of formal and informal visits from time to time for each respondent was undertaken. Injecting case-by-case and opinion-by-opinion analysis was focused much.

Stage 3: Based on these observations, final discussion was held particularly on the responses elicited using the questionnaire method and the observations, and discussions undertaken. A collective opinion and views from all the sides were pooled out at one point and put to test for final examination.

**Mode of Data Collection**

Personal discussions, interviews with each respondent, group discussions and several meetings with the concerned employees personally at various places. The study injected case-by-case method for collecting the required information. Frequent and series of visits to each employee was undertaken phase by phase to illicit opinions on the system and practices. It was, at one instance, the employee, the officer and the CEO put together, were allowed to express their opinions on the practices in presence of each other. The intentions, however, was not for cross-examining the opinions in presence of one another or verify who is or was true, but, it was only to know the exact picture from all the angles and thus, "blaming" somebody is ruled-out. As has been already put forth, a holistic approach is what makes empowerment work and hence this was the last path followed for collection of final data. At each stage, care was taken to see that, all relevant facts on the practices were elicited.

**Results**

In a theoretical mode of empowerment in the work place, organisation empowerment can have a powerful influence on individual achievements. The positive systems in an organisation will make a person at work place move to great heights. This research extends the work by specifying the content and nature of sense of belongingness and the nature of individual achievements. One way to view industrial and organizational achievements is in terms of constraints and opportunities it presents for individual. For e.g., excessive bureaucratic constraints and red-tapsim inadvertently passive mindsets and behavior of employees, where the sense of belongingness is low (Argyris 1982). On the other, a systematic cultured work place will force the person to work with great strides. It makes one to work those extra miles. There are reasons why people remain at work place after the scheduled time. There were several variables identified and put to test in knowing the reasons for high belonging of employee through empowered work place systems. As many as 20 different enquiry areas were put to test. The enquiry in this area was examined to know the level of accountably each shouldered in the organisation. The responses were quite noteworthy and only 1% strongly disagreed with the system saying that each is not held accountable and is blamed for not doing work properly, whereas, as many as 53 and 45% employees strongly and moderately agreed
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accordingly for the system where each is accountable for his/her own action and doesn't blame others for the outcome results. A look at the other practices put to test included: managements trust level on each individual in the organisation revealed that 98% were happy that they were trusted in the organisation and non-disagreed with this practice. The actions of employees were not cross-examined. The hidden agenda of employees and management also spoils the work place atmosphere, which was put to test. More than 75% disagreed and feel that none had hidden agenda in the organisation and every activity was transparent and open. A minimum of 15% employees could not respond to the enquiry made. As many as 11% of the employees agreed and expressed their willingness that there are individual's who have hidden agenda. The nature of the people and their behavior at work place was put to test to know whether people possessed conservative characteristics and where they clean in their actions. Nearing 56% disagreed in these opinions that people were conservative and as many as 28% were not in a position to respond. There were 15% of respondents who felt that people were conservative, which reflected in their actions. While a sense of belonging can also be created with the philosophy of equality treatment by management. While common rooms were shared equally in the organisation, more than 65% agreed to the system of common sharing culture, whereas 25% disagreed with the system. A small crunch of 6% was unable to judge on the practices and didn't respond to the enquiry. An enquiry was also undertaken to know people's actions, thinking and what's up in their mind. More than 60% disagreed in stating that individuals are open in telling what's there in one's mind, whereas, a minimum of 8% agreed in opining that some don't tell what's up in their mind and were not open. A large crunch of 31% could not respond to the enquiry put to test and were unable to judge. While another enquiry that was put to test in knowing the feelings of belongings among individual's shouldering the responsibility among all. As many as 85% respondents agreed that responsibility was shared and 6% disagreed for the practices ever existed. An ethical management would get good returns from its employees reflecting in growth of organisation. This also has reflections on the thinking and perception of all the employees in organisation. Belongingness feeling amongst all also depends on how management's attitude is while dealing with work place issues of employees. Is the management subjective in its approach brought out 60% responses disagreeing that management is not subjective in its approach towards work place issue, whereas 20% agreed and felt that management is subjective sometimes. Management also recognizes hard work of the employees, as said by more than 75% of employees working in the organisation, and as many as 65% of employees said, management is interested in ends and the means followed by all in organizational activities. A work force with high productivity and motivation looks for management with fair behavior. More than 75% of employees felt that management behavior towards all in the organisation was transparent, open and
visible. A small crunch of 21% felt that management was not transparent, whereas, 3% of employees could not respond to the enquiry.

Few other areas to know the belongings feelings of employees that were put to test included: 65% of employees stating that top boss can also be questioned for his action by employees; 90% felt that people in the organisation don't spy you; everyone is at liberty to have his own objectives and mission as felt by more than 75% of employees; one can develop his own products in the organisation, as opened by 74% of employees and a total of 73% employees expressed that each work in the organisation is recognized and well-dissimilated, whatever be the quantum of return contribution.

There are some other areas of enquiry and responses, which are note-worthy at this stage. The employees felt insecure sometimes, may be in initial days as opened by 5% of employees. Even 30% of employees felt that management has its own people in organisation, which work hand in hand. 40% of employees felt that they were not involved in decision-making exercise in the organisation, whereas nearly 20% employee's dint had the liberty to set one's own work standards. The rest responses and the enquiry areas may be seen in the table No: 07.with the corresponding results.

Although it requires several different systems to create the oneness and belongings feeling among employees while empowering employees, the variables put to know various organizational activities are timely.

**A Start up PPL Map of Empowerment**

The unit started in 1974, but emerged independently in 1981, and grew in prominence and gradually attained an expertise in the field of hydraulic tube fittings and was known as Hyloc Hydrotechnic Pvt Ltd. PPL manufactures Radial pistons pumps, relief valves, check valves pressure switches, directional control valves etc, with domestic to National to International market, with a range of more than 500 as of 2001, but with 800 different products now while making tremendous impact at National level. It has become a kind of pilgrimage for management professionals and industrialists, to visit and have a gist of PPL human resources practices and systems. It has become a learning institute, a model to the industry and as a visitor has rightly described “a temple of ethical management”.

Even in the words of Adi Godrej “it has opened my eyes in many ways by seeing the excellent work done by you (PPL). I am sure your company has a tremendous future ahead of it”

Above all, the ownership culture that has been practiced has been the main agenda for employee's high motivation and morale packed work-behavior. Firmly believing in the philosophy of honesty, trust, clean and professional practices at workplace and transparency and ethical approach have led to high-inspired employees. Then, how was the journey towards creating a World-class workforce and a company? Was it believed to be set-up initially or was time and Professional approach the reasons, which management was able to create an Island of excellence and an Island of ethical practices, while empowering
employees. As the history dawns about PPL, it was a traditionally managed company, but over a period of time grown from macro status to a micro workforce population. The mix is also heterogeneous composition, with people having varied educational background to high technical background. The social texture is composed with varied cultural background and widely distributed linguistic composition. The age composition of employees has a span between 22-50, and almost all men. The work experience of the employees also ranges from a minimum of two years to a maximum of 20 years. These demographic compositions are quite significant observation in knowing the relevance and significance correlation it had, while empowerment exercise was practiced. It was also observed to know the success rate of empowerment at workplace in organization through wide range of employee composition, *per se.*

**The Organisation through Ages**

The functioning at workplace was traditional in practice, where there was an administratative gap between the top and the bottom grass root employees, while formal code was defined. Few people as boss were at the helm of organization affairs and large crunch of employees were at bottom line. The structure and system was quite traditional and the relations between these two groups were cordial, but was always managed and guided by top-bottom hierarchy and red tapism, with several bureaucratic echelons. The communication flow was always guided with authority, and the instructions flowed from top to bottom. Barely grass root employees were allowed to pent-up their feelings directly, and if at all they were allowed, lots of barriers restricted them to function within the defined scope of work. There was not much transparency while communication amongst these groups. Most of the time, management decided the nature, degree and content of communication that flowed in organization. The employees had little freedom to change the job-work setting; barely talked to people and rarely exchanged their ideas. At times, they even didn't know who the customers were. Moreover, it was rigid defined system and none were allowed to experiment on the job beyond the defined boundaries. There was less freedom and liberty at workplace and moreover, prior permission of management to take up the work was strictly mandatory. Employees confined to their defined work. It was more of mandatory obligations for employees to be with the organization and work.

**Empowerment @ Work**: The making of an empowered workforce

Institutionalization of change to produce common understanding among employees about what is appropriate and fundamentally meaning behavior requires an appropriate start-up. What triggered the leader (CEO) to introduce such a culture and how employees were acclimatized into empowerment culture? We also saw how the company handled all the cultural obstacles and succeeded in implementing a new culture. We should not expect, therefore, that individuals with different backgrounds or at different levels in organization would tend to describe the organization culture in similar terms. The
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culture edifices the values, belief and thinking aspect of the organizational practices and the principles it stands for. While everyone in an organization will share the organization culture, not all will do to the same degree. There are some variant cultures too, and some widely mixed hetrezenous culture. Did PPL has the uniform culture was the initial thinking of CEO in understanding and designing an entire transformation for meeting newer challenges and demands of competition and struggles towards change. The change process was not easy nor was it too difficult. But, most important aspect in this transformation process was that there was an attempt to change the culture and it was done at first instance by prioritizing the areas and systematically looking at the process and dimensions of empowerment strategies, per se. The process was planned, taught and executed step by step. As in the words of CEO, in this exercise, there is no one particular area one can start to work while empowering employees. But, for such a culture change in employee at workplace, one can priorities the practices, and this is how, the CEO and organization went towards process of change. Empowering employees frequently requires structural changes. The underlying principles of structure and systems at workplace were looked at. The workplace has been constructed and was designed for easy accessibility. The initial work was that the formal organization structure disappeared. There were no designated positions or a place designated for particular person. Any person can use any workplace for his work to be performed 6. Another management ethos put into practice was that each one is as good as CEO. There is no red-tapism and if any employee wants to meet CEO or any other official in the organization, he can approach straight without any formal permission. Employees here are not fancy in their position, designations and the names, per se, while it took hard time to build such ethos in the system. As one employee puts it, by virtue of being a flat structured management, it became easy for one to improve on the job because each has an oppournity to see and learn from everyone without any limitation. Protocols are kept low and each tends to look at business and work as first priority. While the employees are empowered, equality forms the basis for such system on macro level. The organization also practiced 'no secrecy' and 'confidentiality'. These words are never on any policy, mission statement, goals, objectives, et al. Infact, everything is transparent, open and shared. As one observes the CEO room, which doesn't have any plank and signboard stating 'knock and enter', 'no admission without permission'. Every employee has the power to discuss any issue concerning organization without any formal protocol. Infact, when CEO has a business guest from outside, any employee can enter and discuss if he has a point to make. Any employee in the organization can take-up the business dealings on behalf of the firm and proceed further without any formal permission or official nod. Employees can even watch the discussion going on with customers. To add, the practices of transparency are to such degree that, on any of the CEO business tour, all the details of the tour plan, place of meeting, persons to meet is put on notice board. Each employee knows
where the CEO is and what is the business deal. This also restricts unnecessary doubts. Further, the company accounts are kept open for one to verify, question and understand the financial effects of their jobs and allow each employee to equally share the financial fortune of the company. The trust is high and faith unquestioned. On the contrary, the trust level is high, and the benefits of open feedback are reflected in several ways the organization has encharged. The organization, in this regard, has also developed a system called the 'Best Employee Feedback'. An employee's feedback on the inclusion of Yoga and Gymnastics and its positive effects on personality bagged him the award.

The positive implications: The post scenario of power of Empowerment
The performances of such practices are reflected in different shades. The sales turnover with barely in thousands has crossed crores now. There is a tremendous growth in profits. The costs have also been reduced with employees taking full responsibility of overhead wastes. Infact, the intrinsic satisfaction that employee is with PPL can't be measured by any financial scales. The employee behavior which is reflected in high standards of regularity, discipline, taking outright responsibility, quality approach in all the work, innovativeness and trying experiments in finding new products as also redefining existing ones, shared responsibility and upon all this, high level of faith and trust one works. Infact, the other outcome indicators of such employee behavior are reflected in: every employee being accountable for ones action; taking risk in performing the task; greater feeling to be part of the organization; honesty in ones behavior; the feeling that they are not just paid to work; shouldering the organization responsibility equally; no infighting and ego feeling; no superior-inferior complexity; and the feeling that they are not merely paid employees of the organization.

On the other, the perceptions of employees that the management is viewed as a responsible management and not merely boss-employee relation. The feelings amongst the employees that, the management looks for quality results; is uncritical; is more objective in approach and emphatic; respects all irrespective of ones return contribution; encourages each; employee participative and transparent; loyal and truthful; and above all visionary. Infact, the top boss has created such an euro in the organization that, there is no single incident ever noticed or reported of having been treated employee merely as an employee because he is employed and paid for the job. Infact, on the macro scale, employee feels to be part of the organization and the inner satisfaction while identifying with the organization is incomparable. Success of the employee's hard work is also reflected in several honors.

The Harder side of Empowerment
Normally, people always look with suspicious in welcoming new system that is brought into any of the present working systems. Initially, there was resistance for such power distribution systems and open climate at PPL. A suspicious perception about the system always made employee to work in the defined boundaries and employees thought that: Is it
another game plan of management to put us in problem by giving power? Employees were made part of the organization development process, but took time to put full strength in involving themselves. When they were told that they were trusted, instances were reported that employees took advantage of the system and in few instances were off the job without prior permission. Even, when the responsibility was equally shouldered, management was blamed at times for not reaching the target. Employees were not open and free while communicating with management. Feed back also tended to be half factual. Management was to listen negative feelings of not meeting standards, inspite of the fact that responsibility was shared equally. There were few incidents of hidden agendas of employees, which were brought to the notice. On the other, recognition of the work done was based on objective assessment, but still the mindset of employees ruled out to be subjective. With all good and bad deeds, management still went with instituting and practicing people centric empowerment strategies. As in the words of CEO at one instance, the results in such exercise are too late, but fruitful. One can't get instant results.

The Discipline of Employee Empowerment

The organization has created global systems that serve the mission and vision and incredible things happen and this is how empowerment and empowering employees has created at workplace in the organization. The other prime reason why the organization has been able to create such an empowerment climate is the leader and the leadership. The leader with the vision and mission can turn the very face of organization and great strides can be achieved as has been seen in the organization under the preview of the study. Reports from fortune organizations have demonstrated that, the robust turn to stay in global first 100 organizations was the reason due to leadership reflecting in CEO's behavior and approach. It should also be noted that, empowerment and empowering employees is a holistic approach and all the systems, practices, leadership, culture, ethos, policies and principles should together join hands in working at it. If a single element in this entire system is missing, empowering employees can hardly be practiced. Today, employees at every level expect to be treated as valued members of the organization. They seek equal responsibility and look for independent decisions in the affairs of organization. They also seek power for better organizational deeds. The vision of the leader has paved the way for an introduction of all these. They are now paying dividends. The leader has introduced the system and has been instrumental in inspiring the employees to view their growth through these systems. A factory within the factory has through Interpreneurial atmosphere.

At this particular time in history, with thousands of our major organizations facing global challenges and some even unable to cope in managing to the extent needed, it is little wonder that organizational anxiety about future will be much wide spread in our country in the days to come. We are put at end by stating that, “there is nothing Indian Organizations need more at this moment than a true renaissance strategy towards human
resource development and management at every level”. Empowerment and empowering employees in organization is the answer. Lets all start spreading this concept of empowerment, wherever it is possible.

**Strategies for Empowerment Practices**

**Lessons to learn**

Based on findings and observations in the study, some tentative areas have been identified for creating High Performance Work Systems-HPWS and High Performance Work Practices-HPWP. These practices, however, directly and indirectly reflect on the practices of empowerment on larger scale and are essential for employee empowerment.

**Lesson No 1. Platform for Empowerment**

Be prepared thoroughly to experiment the distribution of power and delegated responsibility. A proper grounding is required and do not hurry. One may start the practice and may not get the desired results immediately. Study and understand what has to be looked into: the system, the practices, the people or the ethos. Each stage requires careful study and each step should be followed by next appropriate step. Also, look at how much degree each employee has to be empowered. Further, there are certain essential organisational ethos's to be seen and worked out, viz:

Is organization policy apt to practice empowerment?
Is leadership at all levels visible?
Is employee behaviour transparent; and Do employees accept challenges, and the like?

**Lesson No 2. Shared Ownership Culture**

The ownership concept should follow the rule that each one is an owner and each one is worth equally in the exercise of running the organization. Make each feel like an owner in himself. This could be done through sharing equal responsibility and authority among all. While doing so, make your employees feel like owners and make them understand and realize the ownership. The concept that 'I' have just come to work should be removed and the feeling of 'My Organization' should suffice. They always need to feel part of the organization and not mere employees who are paid to perform the work. With shared responsibility and authority, one can create the shared ownership.

**Lesson No 3. Transparency and Open Door Practices**

The management should follow the principles of transparency in all the activities and functioning. Be open and clean in approach and follow-up work. Never should the management create an impression among the employees that they are dissatisfied with management behavior, and attitude, and the reason being the conservative approach of management. Never should employees feel insecure owing to management behavior and policy. Their (management) behavior, attitudes, style of functioning, empathic behavior towards employee contribution and positive thinking makes all that difference in the success of an organization. The creation of friendly atmosphere by the management through apt actions signifies how the organization could do in the days to come.
Lesson No 4. Time to empower or not to empower

An initial human resources study needs careful understanding and analysis of individuals with respect to:
- Can everyone be empowered?
- Can everyone be empowered at the same time?
- Is an employee self-disciplined?
- Do people like to be empowered?
- Do people understand the spirit of power behind empowerment?
- Are people with EGO clash and status? and
- Can an empowered employee be still further empowered?

These few pre-thinking will lead the exercise further in right direction because employees have to work with no supervision; they have to work with power in hand; and they are accountable for each action. Hence, a survey needs before hand.

Lesson No5. Don't hold unto data

Be transparent and open in all the organization activity. Each data - be it related to production; marketing; finance; technical; a strategic frame; a revamped process; an investment in new resources; a relationship or revised set of values; the estimated annual sales or it could be profits, loss are to be kept open to all the employees to verify. They should feel the Psychological power to question. All the data and information in the organization should be kept open for one to see, verify and question, if any.

Further Research

Future direction in this area could focus the study on empowered organisation as has been done in the present study and compare it to another organisation with no empowerment or less empowerment, per se, based on the long held observations one should do before such study. It could also happen that empowerment strategies are viewed differently amongst male and female population. An observation could also be directed to study the gender differences between how one feels, if the practices are undertaken amongst male and female employees. It could happen that a particular practice may be perceived differently amongst both the sex, which helps the Management to look into such issues while a strategy is adopted. Infact, there could be an perceptual difference, which are quite significant observations while such practices are undertaken involving larger heterogeneous working population.

It has always been held opinions that in India, the system, practices and polices are different amongst the public-private organisations. This is mainly due to culture differences. A study in this direction also in comparing the public-private organisation will throw a light on how employees in these sectors view the system and further suggest the desired practices. In fact, an attempt could also be directed towards understanding how empowerment differ from members of different types of organisation- Public x Private; Small x Medium x Large enterprise; not for profit x government bureaucracies; Sunrise x Brick / Mortgage organisation; and what type of organisation produces feeling of
empowerment.
An attempt could also be directed towards knowing the influence of each factor/system/practices on the employees, per se. This could further direct one to fine tune such practice on larger canvas and understand weather an empowered employee can be still empowered. Further Research could also include a study and observation on self-managing teams. Such research may likely facilitate theory development on organisation design and development of work force empowerment in contemporary organisations. Certainly, this study shows how group’s characteristic can be an important influence on feelings of empowerment. Research must go further to assess what types of groups increase empowerment and why. Our hope is that the more we study and Research empowerment, the more knowledge we can apply towards curing these organizational ills.

End Notes
*** The present author argues that, not all can afford to practice empowerment without proper preparation and mind-set change (AMDISA, South Asian Journal of Management, 10 (4), Oct-Dec, 2003, pp: 52-59). It requires a total restructuring of all the HR practices for achieving sustained organizational growth.
1. A Private Ltd Company, situated in Northern part of Karnataka State. Initially the group was started at a place in the city. PPL was moved to new premises in 1981-82 with the present location been 78-80, Machhe Industrial estate, Machhe, Belgaum- 590014. Karnataka State
2. Managing Director, Godrej Soaps ltd, Vikhroli, Mumbai, India” It has opened my
eyes in many ways by seeing the excellent work done by you. I am sure your company has a tremendous future ahead of it”. [April 22, 1992, after personal visit to PPL]

3. Ricardo Frank Semler, SEMCO, rua dom Aguirre 438, Sao Paulo, BRAZIL “The practices reflects and resemble that of SEMCO, on the lines of beautiful principle.... ethical management and idea of natural business”. [August 15,1994, through letter]; Dr D Nagabrahman, Director, TAPMI, Manipal, Karnataka, India, writes back to one of the Professor at IIM-C, who co-ordinates activities at Management Centre for Human Values, IIM-C, “I have seen an really exceptional and endowed with Qualities and values of ethical Management been advocated and runs PPL on different model. It is to be seen to be believed for his concepts of business and work, his values and his spiritualism”. [May 9, 2001, after personal visit to PPL, writes to Shri Chakaravaoty, Professor, IIM-C, West Bengal, India]

4. The total 74 employees form the total Manpower including the CEO. A total of 60 responded and participated in the study.
5. Some of the enquiries areas which were part of the data collection include: what type of culture required for empowerment practices? How to create an Empowerment culture and strategies in Organization (the steps involved)? How should the CEO and the leadership be, viz: style, traits and characteristics? What should be the policies of organization? How to create an Empowerment culture and strategies in Organization (the steps involved)?

6. The organization has flat organizational structure and hierarchy, where each is equal in position and status. The hierarchy is designed only on paper. Otherwise, each one is manager and each a CEO. In practice, there is no bifurcation of management and workforce. Each can work anywhere in the organization, depending on the necessity of skill required. For administrative purposes, they are categorized into different departments.
7. I asked employees to clearly write and express their non-accepting opinions of any such systems and practices followed in the organization. This will give an idea for Executives when such a change is brought and how employees view, and what should be the course of action. Because in the work of Chris Argyris, he argues that, despite all the talk and the change program, empowerment is still mostly an illusion (“Empowerment: The Emperors New Clothes”, HBR, May-June, 1998, pp: 98-105).
8. The organization has now invested an amount of 20 lakhs on gymnastics facilities.
9. PPL has maintained a compound growth rate of 32.5%. In the year 2000-2001, it made a turnover of 9 crores. Present growth of rough estimate could be 50 crores.

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Mean and SD results
The table No: 02 shows the Mean, SD and total values in relation to all the four independent variables and the enquiry areas. Each category was sub-divided as shown in the table.

Table No. 02: Showing the Mean and SD Results

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<th>SD</th>
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<td></td>
<td></td>
</tr>
<tr>
<td>&lt; 30</td>
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<td>31.74</td>
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<td>30-39</td>
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<td>47.95</td>
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<td>10</td>
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<td>47.28</td>
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<tr>
<td>&lt;10</td>
<td>33</td>
<td>321.36</td>
<td>29.70</td>
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<tr>
<td>10+</td>
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<td>313.19</td>
<td>52.69</td>
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Table No.03: ANOVA results

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Note: BG - Between the Groups; WG - Within the Group
Emotional Intelligence, Interpersonal Relation and Personal Effectiveness: 
A Comparison between School and College Teachers in North-East India

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Abstract

The present study was an attempt to examine and compare the school and college teachers of North-east in some of the personality attributes like emotional intelligence, interpersonal relation and personal effectiveness. A sample of 100 teachers, 50 from schools and 50 from colleges, were randomly drawn from both private and government schools and colleges in north-east hill station ‘Darjeeling’. All of them were individually administrated the standardized tests on the above said attributes. The collected data were analyzed through statistical tests such as ‘t’ and person ‘r’. The result showed that the school and college teachers as well as male and female teachers didn't differ significantly with regard to emotional intelligence, interpersonal relation or personal effectiveness. The authors attributed the reasons like tribal dominated culture, where women are equally hard-working like men, cosmopolitan lifestyle due to tourism industry and no gender specific role difference are the major causes of this result. However, all these three attributes correlated positively and significantly with each other across all the groups. In general all the teachers were found to be effective irrespective of their levels of profession or gender, may be because of hard-working culture and progressive attitude. Thus, the present authors suggest for developing and promoting such constructive work-culture in other educational intuitions across the country.

Key Words: Emotional Intelligence, Interpersonal Relation, Personal Effectiveness, Levels of Education, Levels of Profession.

Running Head: North-east Teachers
Emotional Intelligence (EI)

Emotional Intelligence is an individual's self perceived ability to identify asses, manage and regulate the emotions of his own self as well as others. People with high EI know themselves better and understand others very well. Thus, by developing EI individuals can become more productive and successful at what they do, and help others in doing so. Daniel Goleman (1998) has broadened its scope to include an array of non-cognitive abilities that help people adapt to all aspects of life, such as the basic competencies like self awareness, social awareness, self management, and social skills, which influence the way people handle themselves and their relationships with others. These competencies play a bigger role than cognitive intelligence in determining success in life and in the workplace. Simply being high in emotional intelligence does not guarantee a person would have learned the emotional competencies that matter for work; it only means that they have excellent potential to learn them. Hence, emotional competence is a learned capability based on emotional intelligence that results in outstanding performance at work. Our emotional intelligence determines our potential for learning the practical skills that are based on these basic elements: self-awareness, motivation, self-regulation, empathy, and adeptness in relationships. People with these competencies are attentive to emotional cues and listen well, show sensitivity towards others' needs, feelings and understand their perspectives, skilled at winning over and influence people, build rapport and keep others in the loop, cultivate and maintain extensive informal networks, make and maintain personal friendships among work associates, as well as handle difficult people and tense situations with diplomacy and tact. Empirical findings have established it that emotional intelligence is a strong predictor of job performance, and work behavior. Therefore, in order to be effective at workplace a person requires a set of behavioral competencies (qualities, skills & attributes) that are associated with effective management behavior or embedded within all work related activities. In order to achieve personal competency we need to know our strengths as well as weakness and would learn how to overcome them. The effectiveness of a person in any profession is most adequately measured in terms of the degree to which in his work with his colleagues, he achieves his goals and professional development (Rogers, 1967).

In teaching profession, effective teachers are inspired by creative idealism, feel pride in their profession, confident and committed to the task of national and social reconstruction. Effective teachers use to encourage cooperative and collaborative learning, motivate students towards self-learning and adapt reflective thinking to be more rational, progressive, open minded and innovative in their teaching practices. Thus, it's an interactive process, a process of establishing healthy interpersonal relationship with students, authorities and colleagues and helps the learners to develop requisite skills, knowledge, interest and attitude. Thus, EI is the core ability of being an effective teacher as well as maintain healthy interpersonal relationship. These are some of the key human resource issues which are critical for enhancing institutional effectiveness. In the current education scenario with greater emphasis on right to education and quality education for both technical and non-technical educational institutions, it is observed that despite of having good infrastructure, update curricula and large number of students in the campus, teachers are not being effective up to the expected level, nor committed /dedicated to their jobs and happy in their professional career. This leads to sheer wastage of time and resources. Moreover, with heterogeneous ethnic and
ecological compositions teachers in different regions are having their own problems in personal/professional front. Even though, they undergo number of pre-service and in-service training programmes (continuing education programmes) the gap still remains in their job performance and outcomes. As a result, a large scale of diversity appears in every sphere of education, irrespective of the type of institutions. This increasing diversity in the education sector has prompted the present researchers to take up this study in one region of North-East India. The authors intended to take up this study in the north-east hill station Darjeeling in West Bengal.

**Literature review**

EI and academic performance highlights on some major findings, such as in case of secondary level British students (of Grade XI) Petrides, Frederickson and Furnham (2004) found that emotional intelligence moderated the relationship between academic performance and cognitive ability. Parker et al. (2004) found that highly successful students scored higher than their unsuccessful counterparts on three out of four subsets of EI (in intrapersonal ability, stress management, and adaptability) but didn't differ significantly in interpersonal ability. Rode et al. (2007) stated that individuals with high EI would perform better academically as the majority of academic work is self-directed, requiring high levels of self-management.

Jaeger (2003) in graduate professional education found that students, who are generally attuned to their emotions and feelings, and can adapt to emotionally driven situations, were more likely to attain higher levels of academic achievement in the graduate course. He further explained that this is a combination of emotion and cognition and their influence on decision making that connects the students to the learning process, as emotion impels memory and attention drives learning. Thus, we can conclude that emotional engagement in learning situation can enhance the emotional competence of the learners which is strongly correlated with their academic performance. However, Bastian, Burns, and Nettelbeck (2005) examined the relationship between EI and some life skills like academic achievement, life satisfaction, anxiety, problem solving and coping ability but didn't find any significant correlation.

In the organizational set up quite a large number of empirical studies have been done relating EI to leadership, work-culture, job-satisfaction and how to build emotionally intelligent organization. Boyatzis and Oosten (2003) have stated that EI is a valuable resource that can renew and re-ignite organizational purpose and inspire people to perform better. However, to our great concern, although industry manager and professionals have embraced the relevance of EI in their workplace and professional practices, other professionals like doctors, engineers or teachers have not yet adopted this concept in a significant way in their professional transactions. Some authors have pointed out that faculty members seldom have the time, training, experience, or willingness to help students acquire the competencies they will need to relate to clients, fellow professional, and others in the workplace (Hoberman & Mailick, 1994). Thus, even though empirical researches as well as professional practitioners have well recognized the strong connection between emotional intelligence and job performance, regrettably very few professional schools have actually included this in their curriculum (Abraham, 2000). Likewise, the present authors have also felt that although, in educational research number of studies are being carried on in teacher education, teaching effectiveness etc., rare attempts have been made to study and develop the teachers’ intrapersonal and interpersonal skills at workplace and how to blend these in their professional practices.
Objectives
- To study and compare the North-east school and college teachers in the attributes like emotional intelligence, interpersonal relation and personal effectiveness in their workplace.
- To study and compare the male and female teachers both at school and college levels in all these three attributes.
- To assess the pattern of relationship among these three attributes across all the groups.

Null Hypotheses
- The North-east school and college teachers will not differ significantly in the attributes like emotional intelligence, interpersonal relation and personal effectiveness.
- The male and female teachers of North-east will not differ significantly in the attributes like emotional intelligence, interpersonal relation and personal effectiveness.
- There will not be any significant relationship among these three attributes.

Method
Participants
The area of study is Darjeeling district in West Bengal. A sample of 100 teachers (50 from schools and 50 from colleges) were collected from different secondary level schools and colleges of Darjeeling town through random sampling technique. Out of 50 teachers at each level 25 were male and 25 were female teachers. All the subjects in the sample were individually administered the following tools.

Instruments
- Emotional Intelligence (EI) test developed and standardized by Dr. N. K. Chadha of Delhi University.
- Interpersonal Relations (IR) scale (culture-fair) developed and standardized by Schutz (1996) called as Firo-B was used for assessing the interpersonal relationships of teachers.
- Personal Effectiveness (PE) scale developed and standardized (culture-fair) by Udai Pareek (1997) was also used to measure the effectiveness of teachers at both levels.

Design
This is a 2X2 factorial (quasi-experimental) design having two independent variables i.e., levels of profession and gender, with two sub-categories like schools and colleges; and males and females. Emotional intelligence (EI), interpersonal relations (IR) and personal effectiveness (PE) attributes were the dependent variables in this study.

Procedure
All the above tools were individually administered on the teachers and first-hand information were also collected through informal interviews. Collected data were analyzed both quantitatively and qualitatively.

Findings
Both the descriptive and inferential statistics were applied to analyze and interpret the data. The mean (X), standard deviation (σ) and ‘t’ tests were done to analyze the significance of the difference between male and female teachers as well as the school and college teachers in above mentioned attributes. Table 1 and 2 show the findings of this study (Table 1 & 2 given below).
Table 1
Showing the mean scores and standard deviations of school / college teachers (male and female)

<table>
<thead>
<tr>
<th>Level of Teachers</th>
<th>Mean (x)</th>
<th>SD (s)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td></td>
<td>(x)</td>
<td>(s)</td>
</tr>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Male Teachers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>School Personal Effectiveness</td>
<td>32.27</td>
<td>31.4</td>
</tr>
<tr>
<td>College Personal Effectiveness</td>
<td>31.80</td>
<td>34.53</td>
</tr>
<tr>
<td>Male Teachers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>School Interpersonal Relation</td>
<td>19.87</td>
<td>17.27</td>
</tr>
<tr>
<td>College Interpersonal Relation</td>
<td>18.73</td>
<td>19.73</td>
</tr>
<tr>
<td>Male Teachers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>School Emotional Intelligence</td>
<td>225.66</td>
<td>213.4</td>
</tr>
<tr>
<td>College Emotional Intelligence</td>
<td>272.72</td>
<td>252.06</td>
</tr>
</tbody>
</table>

N= 100

Table 2
Showing the results of t-test

<table>
<thead>
<tr>
<th>Category</th>
<th>Personal Effectiveness</th>
<th>Interpersonal Relations</th>
<th>Emotional Intelligence</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M1</td>
<td>M2</td>
<td>'t' Value /s</td>
</tr>
<tr>
<td>College Teachers and School Teachers</td>
<td>33.17</td>
<td>31.83</td>
<td>0.81</td>
</tr>
<tr>
<td>Male Teachers and Female Teachers</td>
<td>32.03</td>
<td>39.97</td>
<td>1.66</td>
</tr>
</tbody>
</table>

Level of significance at 0.05 levels
N=100
NS- Not Significant
As the Table 1 and 2 reveal neither the male and female teachers, nor the school and college teachers differ significantly in emotional intelligence, interpersonal relations and personal effectiveness. This implies that in the north-east region in Darjeeling district teachers do no differ significantly with regard to their level of emotional intelligence, interpersonal relations and personal effectiveness, irrespective of gender and levels of profession. Thus, the null hypotheses 1 and 2 would be retained here.
Furthermore, Pearson product moment correlation (r) was also conducted to find out the pattern of relationship among these three personality attributes. Table 3,4,5,6 and 7 represent the inter correlation matrix for different groups of subjects and the total sample (100 teachers).
(Refer Table 3,4,5,6 & 7 given below)

Table 3  
Showing the inter-correlations in case of male teachers

<table>
<thead>
<tr>
<th></th>
<th>Personal Effectiveness</th>
<th>Interpersonal Relations</th>
<th>Emotional Intelligence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Effectiveness</td>
<td>1</td>
<td>*0.726</td>
<td>*0.785</td>
</tr>
<tr>
<td>Interpersonal Relations</td>
<td></td>
<td>1</td>
<td>*0.751</td>
</tr>
<tr>
<td>Emotional Intelligence</td>
<td></td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

1*Highly significant

Table 4  
Showing the inter-correlations matrix in case of female teachers

<table>
<thead>
<tr>
<th></th>
<th>Personal Effectiveness</th>
<th>Interpersonal Relations</th>
<th>Emotional Intelligence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Effectiveness</td>
<td>1</td>
<td>*0.393</td>
<td>*0.577</td>
</tr>
<tr>
<td>Interpersonal Relations</td>
<td></td>
<td>1</td>
<td>*0.640</td>
</tr>
<tr>
<td>Emotional Intelligence</td>
<td></td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

1*Highly significant
### Table 5
Showing the inter-correlation matrix in case of all school teachers

<table>
<thead>
<tr>
<th></th>
<th>Personal Effectiveness</th>
<th>Interpersonal Relations</th>
<th>Emotional Intelligence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Effectiveness</td>
<td>1</td>
<td>*0.677</td>
<td>*0.789</td>
</tr>
<tr>
<td>Interpersonal Relations</td>
<td>1</td>
<td></td>
<td>*0.859</td>
</tr>
<tr>
<td>Emotional Intelligence</td>
<td></td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

*Highly significant

### Table 6
Showing the inter-correlation matrix in case of all college teachers

<table>
<thead>
<tr>
<th></th>
<th>Personal Effectiveness</th>
<th>Interpersonal Relations</th>
<th>Emotional Intelligence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Effectiveness</td>
<td>1</td>
<td>*0.119</td>
<td>*0.581</td>
</tr>
<tr>
<td>Interpersonal Relations</td>
<td>1</td>
<td></td>
<td>*0.853</td>
</tr>
<tr>
<td>Emotional Intelligence</td>
<td></td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

*Highly significant

### Table 7
Showing the inter-correlation matrix in case total sample

<table>
<thead>
<tr>
<th></th>
<th>Personal Effectiveness</th>
<th>Interpersonal Relations</th>
<th>Emotional Intelligence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Effectiveness</td>
<td>1</td>
<td>*0.677</td>
<td>*0.789</td>
</tr>
<tr>
<td>Interpersonal Relations</td>
<td>1</td>
<td></td>
<td>*0.859</td>
</tr>
<tr>
<td>Emotional Intelligence</td>
<td></td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

*Highly significant
The above mentioned tables show the pattern of relationship among these three attributes in case of male, female, school level, college level and general / total sample groups. In case of male teachers (irrespective of level of profession) all these three attributes are positively and significantly (i.e., r=0.726, 0.785 & 0.751) correlated to each other. But in case of female teachers only two correlations i.e., EI and PE r=0.577 and EI and IR r=0.640 are positive and significant. In case of all school teachers (irrespective of gender) all the three inter- correlations (i.e., 0.677, 0.789 & 0.859) are found to be positive and significant. However, in case of college teachers only EI and IR r=0.581 and EI and PE r=0.853 are found to be significantly positive.

In case of overall / total sample (irrespective of gender & levels of profession) two correlations i.e., EI and PE r=0.736, and EI and IR r=0.845 are found to be positively significant. This trend shows that these three attributes hold a common factor. Hence, the null hypothesis 3 would be rejected in this study. Another finding of this study is that even though the teachers did not differ significantly among themselves with regard to these three attributes (EI, IR, PE), their respective scores in these variables (refer Table-8 given below) were generally high. This explains that in general the hills teachers are high in EI, IR and PE irrespective of gender and levels of profession.

## Table 8

*Showing the mean scores of each group*

<table>
<thead>
<tr>
<th></th>
<th>Highest Test Score</th>
<th>Group Mean (( \bar{x} ))</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>EI Test (Emotional Intelligence)</td>
<td>285 and above</td>
<td>Male (School) ( \bar{x} = 225.66 )</td>
<td>285 and above</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female Teachers (School) ( \bar{x} = 213.4 )</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Male Teachers (Colleges) ( \bar{x} = 272.72 )</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female Teachers (College) ( \bar{x} = 252.06 )</td>
<td></td>
</tr>
<tr>
<td>IR Test (Interpersonal Relations)</td>
<td>25 and above</td>
<td>Male Teachers (School) ( \bar{x} = 19.87 )</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female Teachers (School) ( \bar{x} = 17.27 )</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Male Teachers (College) ( \bar{x} = 18.73 )</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female Teachers (College) ( \bar{x} = 19.73 )</td>
<td></td>
</tr>
<tr>
<td>PE Test (Personal Effectiveness)</td>
<td>40 and above</td>
<td>Male Teachers (School) ( \bar{x} = 32.27 )</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female (School) ( \bar{x} = 31.40 )</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Male (College) ( \bar{x} = 31.80 )</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Female Teachers (College) ( \bar{x} = 34.53 )</td>
<td></td>
</tr>
</tbody>
</table>

### Discussion and conclusion

The results showed that in the north-east district Darjeeling the school and college teachers, as well as male and female teachers didn’t differ significantly in personality attributes like emotional intelligence, interpersonal relations and personal effectiveness. After collecting the qualitative data through informal interviews (with the teachers) the authors found the reasons that this area is primarily dominated by tribal population who are hard-working and honest in performing their duties. Due to tourism people here are use to cosmopolitan life-style,
and there are no such gender specific roles in this community. Women are active decision makers and bread earners in the families. Girl children are getting equal status and education like boys. Probably this could be reasons for which no significant difference was found among the teachers. In spite of this, it is also found that in general all the teachers are effective, having above average EI and better interpersonal relationship. Moreover, all these three attributes correlated positively and significantly with each other across all the groups. All the teachers (as the test scores reveal) irrespective of their gender and levels of profession have scored towards the upper limit of each attribute (EI, IR, and PE). In some earlier Indian studies researchers have also found that the teaching effectiveness of government and private college student teachers (B.Ed. trainees) did not differ significantly (Samanta, 2007). But the teaching effectiveness and competency are significantly positively related and interdependent on each other. With regard to gender difference in a study in Himachal Pradesh Sood and Anand (2000) found that female teacher educators (B.Ed.) tend to be professionally more committed to their jobs than their male counterparts. Marital status also seemed to affect this and unmarried teacher educators were found to be more committed to their profession in comparison to married counterparts. Mohanda's (2005) findings revealed that teachers belonging to different levels of teaching (primary, secondary, & college levels) differ significantly in their perception of organizational climate. There is a significant positive relationship between teachers' perception of organizational climate and professional ethics. While identifying the characteristics of best teacher Sarad (2005) found that teachers, who give more time to the institute for students' activities are highly motivated, effective in teaching and students' interactions. At the same time majority of students also look for a good teacher who is friendly, uses innovative teaching method and has broad knowledge in interdisciplinary subjects (Behera, 2003). On effective teachers and teaching Rao and Reddy have concluded (from empirical research) that some teachers are preferred by administrators, some are liked by pupils, and some teach in classes where students gain substantially, but all these are not the same teachers. Thus, it implies that even in case of effective teachers there are wide variations in pupil's choice, authority's preference and teacher's self-motivation. In the present study also the authors found that the hills teachers are effective to a large extent in their interpersonal relation and emotional intelligence, irrespective of gender difference and difference in professional practice / levels, might be because of hard-working culture, progressive attitude and self-motivation. However, its impact on students' achievement behavior has not been studied here, which can be carried out in future. Due to small sample size the authors could not generalize the findings, but suggest to the academic community for developing / promoting such work culture in other educational institutions across the country.
References
• Chadha N. K. (2001). Emotional Intelligence Test for Indian Population. Department of Psychology, Delhi University, India.
A Study on The Influence of Work Life Balance on Women Empowerment in Services Sector in Puducherry

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Abstract

The study aims to find the relationship between work life balance and women empowerment. It also aims to find whether educational qualification of samples affect work life balance and empowerment of women and whether difference in marital status affects work life balance and women empowerment significantly. A sample of 90 women working in education institutions, hospitals and banks, 30 samples in each sector, from the state of Puducherry were taken for the study. Work life balance questionnaire and women empowerment questionnaire were administered to the samples that were selected at random. The primary data so collected were analyzed using tools such as simple percentage, Karl Pearson's coefficient of correlation, Chi – Square and ANOVA. From statistical analyses, a high degree of positive correlation between work life balance and women empowerment was found. Educational qualification of women had a significant effect on work life balance and empowerment. Marital status of the samples also had no significant impact on work life balance and women empowerment. It was concluded that work life balance played an influential role on women empowerment. Educational qualification of samples had a significant effect on work life balance and women empowerment whereas marital status had no significant effect on work life balance and women empowerment.

Keywords: Work life balance, women empowerment, educational qualification, marital status, services sector
Introduction
Working long hours is a constant source of negative job–to–home spillover. All women, irrespective of the marital status are liable to this negative spillover. The effect of working long hours further affects children and elders at home. The individual too, in the process, loses her poise and composure. Women empowerment can be broadly referred to as the expansion of freedom of choice and action. Resources and agency are the two most common components of empowerment according to the literature reviewed. In many cases resources are treated as catalyst for empowerment, enabling factors or sources of empowerment. One such resource is work life balance which is an enabling factor of women empowerment and which when disturbed has a negative impact on women empowerment. According to Hudson resourcing (2005), 'Work-life balance, in its broadest sense, is defined as a satisfactory level of involvement or 'fit' between the multiple roles in a person's life. Work-life balance for any one person is having the 'right' combination of participation in paid work (defined by hours and working conditions) and other aspects of their lives. This combination will change as people move through life and have changing responsibilities and commitments in their work and personal lives. According to Aswathappa (2010), balancing work and life assumes relevance when both husband and wife are employed. He says that travails of a working housewife are more than a working husband. Statistics show that, in India, working women now account for 15 percent of the total urban female population of 150 million. This number is likely to increase as more number of girls are coming out of colleges and universities with degree in their hands. Across the globe, women are stepping out of the security of their homes to face challenges of newer kinds. The Indian women of today is present in all areas of work life – like technology, services, education, engineering, armed forces, police, and also politics – equally with men, and is increasingly exploring creative and challenging careers (Desai, 2011).

Women are 40 percent more distressed than men under similar work pressure, when their family life is interrupted by office work (McMillen, 2011). Working women the world over are grappling with the Herculean task of balancing their familial and organizational roles (Bhushan and Karpe, 1996) – often hampering their productivity and wellbeing. This productivity and well being when hampered often has a telling effect on the empowerment of such women in their workplace. Long work hours or lack of balance between work and personal life stresses out a person to the extent of preventing the affected person from taking an appropriate decision when needed both at work and at home.

Literature Review
According to Dr. Chandra, “Women empowerment involves ability to get what one wants and to influence others on our concerns. With reference to women the power relation that has to be involved includes their lives at multiple levels, family, community, market and the state”. These lines by Dr. Chandra implies that empowerment of women will
take place when women have the power to make decisions at the three important levels like family, society and nation. This means women have to play multiple roles in the family and outside the family i.e., in the society and workplace. Maintaining an appropriate schedule in order to balance work and personal life is very important for women because they cannot afford to neglect one role at the cost of the other. Therefore, balancing work and life is very important so that women can stay empowered. Empowerment can be defined as a person's capacity to make effective choices and to transform choices into desired actions and outcomes. The extent to which a person is empowered is influenced by personal agency (the capacity to make a purposive choice) and opportunity structure (the institutional context in which choice is made) (Alsop and Heinsohn, 2005). A person will have the capacity to make effective choices and to transform choices into desired actions and outcomes only when he is free from stress and has ample time to spend at home with family and in the work place.

“It is easy to make effective decisions when you are feeling great. But how do you make effective decisions when feeling stressed or under pressure?” asks Paul Lanthois (2009). According to Human Solutions Report, probing this more deeply, multivariate statistical analysis (Simultaneously testing the influence of relevant job, organizational and demographic characteristics) confirms that the level of job stress has an independent effect on work life balance. High stress is equated with work life balance difficulties.

**Women’s role demand**

Different gender roles are imposed on males and females from early childhood. These social gender roles ascribe different norms, characteristics, values and behaviors to both sexes. Girls are expected to reflect nurturing, caring and listening skills that are associated with the mothering role (Maddock and Parkin, 1993). Boys are expected to demonstrate authority, autonomy, aggression, dominance and achievement that are associated with the bread-winner's role. As a result, although family responsibilities are now more balanced between men and women, women are still mainly responsible for caring for the children, the elderly, and carrying out household chores while men largely remain in charge of work matters (Fredriksen-Goldsen and Schlarlach, 2001; Cinamon and Rich, 2002). In fact, Plantenga and Hansen (1999) found that women in European countries on average spend about four times as much time as men on caring tasks. However, economic pressures also force women to form part of the work force. Many women are thus forced to juggle multiple work demands and family. While men deal with work matters, often at the cost of family life, women often have to deal with family issues, even when it interferes with their jobs (Pleck, 1977; Newell, 1993). In fact, scholars found that women tended to devote more hours to family activities than men (Eby et al., 2005; Friedman and Greenhaus, 2000) but that hours devoted to work activities were identical for men and women. Accordingly, women often experience role overload. The total time and energy devoted to family and work are too great for women to perform both roles well or comfortably.
(Duxbury et al., 1994). Considering the implications of differences in work and family life, it is reasonable to assume that men and women have unequal career opportunities. In fact, scholars believe that a constraint for women in achieving management positions is the disproportionate responsibility they still bear for raising children and performing household tasks (Wirth, 1998). Indeed, a study on the views of Europeans reveals that European women give family responsibility as the main reason for less advancement in their careers (Eurobarometer 44.3, 1996). Given that women undergo pregnancy and childbirth, they cannot actively benefit from career progression policies which are designed to emphasize the period between the ages of 30 and 40. Moreover, traditional performance evaluations based on hours worked rather than on productivity put women with families at a big disadvantage (Kolb et al., 1998).

Objectives of the study
1. To find whether there is a relationship between work life balance and women empowerment.
2. To find the effect of educational qualification on work life balance and women empowerment.
3. To find whether difference in marital status affects work life balance and women empowerment significantly.

The scope of the present study is to evaluate work life balance and women empowerment among 90 women who held various positions at three different services sector. Out of these 90 women, 30 worked for education institutions, another 30 served hospitals and the rest 30 held positions at banks in Puducherry town. The study confines itself to finding the influence of work life balance and educational qualification on women empowerment. It also finds whether difference in marital status affects work life balance and women empowerment significantly

The following are the hypotheses of the study
1. H₀: There is no relationship between work life balance and women empowerment.
2. H₀: There is no significant difference in work life balance and women empowerment for different educational qualification of the samples.
3. H₀: There is no significant difference in work life and women empowerment for differences in marital status.

Methodology
The following are the research and sample design of the study.

Research Design
The study is conducted among 90 women working in various positions in services sectors such as education institutions, banks and hospitals. 30 women have been selected from each of these sectors. The study has been conducted in Puducherry town for a period of three months.

Sample Description
The samples for the study comprises of 90 women employed in services sectors such as educational institutions, banks and hospitals. 30 samples belonged to educational institutions. Samples from this sector held various positions such as Assistant Professors, Associate Professors, clerks, lab assistants
and receptionists. Another 30 samples were employees of private and government banks. They held positions such as clerks, head clerks, accountants and managers and attendees. The last 30 samples worked in hospitals both private and government. The hospital employees were doctors, nurses, lab technicians, mid – wives, receptionists and attendees. All the 90 samples had various educational backgrounds. Some of the samples like receptionists and attendees had only completed their schooling. Some samples were graduates and post graduates while few of them had completed their research. The exact number of samples under each category is mentioned in table 3. 32 samples out of the total of 90 samples were unmarried and the rest were married.

Sample design
Thirty samples have been collected at random from each of the services sectors and this totally worked out to 90 samples. Simple random sampling technique was used for primary data collection.

Data Collection
Both primary and secondary data were used for data collection. Primary data, as mentioned earlier, were collected from 90 samples taken from three different services sectors equally. Working women from three different services sectors such as education institutions, hospitals and banks were contacted. A total of 90 women were taken as sample size with 30 women being selected at random from each sector. Secondary data were collected from books, journals, magazines, e – books, e – journals and web sites.

Instrument of data collection
Questionnaires were used as the instrument of data collection. The questionnaires comprised of 3 parts – 'personal data sheet', 'work – life balance' and 'women empowerment'.

Personal Data sheet
Personal data sheet comprised of demographic variables such as age, marital status and educational qualification. It also had questions like place of work, designation, annual income etc.

Work life balance questionnaire
Work life balance was measured with a 15 item scale adapted from an instrument reported by Fisher-McAuley, et al. (2003). This scale consisted of 15 items designed to assess three dimensions of work life balance: work interference with personal life (WIPL), personal life interference with work (PLIW), work/personal life enhancement (WPLE). The respondents were asked to indicate the frequency with which they have felt in a particular way during the past three months using a seven point time related scale (e.g., 1=Not at all, 4=Sometimes, and 7=All the time). The Cronbach alpha values for the three factors include 0.93 for WIPL, 0.85 for PLIW, and 0.69 for WPLE (Hayman. J, 2005). The maximum score for work – life balance would be 105 and the minimum would be 15. Score below 60 would be low work – life balance and score of 60 and above would be high work – life balance.
Women empowerment questionnaire

Women empowerment questionnaire consisted of a self constructed scale covering six dimensions such as – economic dimension, socio – cultural dimension, familial / interpersonal dimension, legal dimension, political dimension and psychological dimension (Malhotra, 2003). Each dimension carried 15 questions and therefore had a total of 90 questions put together. Each question had 5 choices based on Likert’s 5 – point scale (1 - Strongly agree, 2 – Agree, 3 – Neutral, 4 – Disagree, 5 – Strongly Disagree). This scale was tested for reliability using 90 samples and a reliability score of 0.774 (Cronbach’s alpha value) was obtained. The maximum score for women empowerment would be 450 and the minimum score would be 90. A score below 270 would be low empowerment and a score of 270 and above would be high empowerment.

Tools of data analysis

The primary data thus collected was analyzed using statistical tools such as simple average, chi – square, correlation analysis and ANOVA.

Data analysis and Interpretation

The following results were obtained after statistical analysis.

Table 1 showing the mean scores of work – life balance and women empowerment in the three services sectors.

<table>
<thead>
<tr>
<th>Sector</th>
<th>Work – life mean score</th>
<th>Women empowerment mean score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Education Sector</td>
<td>70.5</td>
<td>283.7</td>
</tr>
<tr>
<td>Hospital Sector</td>
<td>59.2</td>
<td>266.3</td>
</tr>
<tr>
<td>Banking Sector</td>
<td>63.7</td>
<td>271.5</td>
</tr>
</tbody>
</table>

From Table 1 it can be seen that the mean score of work life balance for the education sector is the highest (70.5) when compared to the hospital and banking sectors. The next highest mean score is the banking sector with a mean of 63.7 for work – life balance and 271.5 for women empowerment. Finally, the hospital sector stands third with a mean score of 59.2 for work – life balance and 266.3 for women empowerment.

In education institutions generally, working hours are less with many paid holidays and the high work life balance score may be attributed to this reason. When we see the corresponding mean score for women empowerment, it is also high comparatively. In banking sector, working time is fixed and employees are not expected to work beyond the required hours, particularly in government banks. This may be the reason for second high mean score for work life balance and women empowerment in banks. In hospitals, irrespective of the prescheduled working hours, the employees, mostly doctors are under constant pressure to work extra hours and at odd times as and when needed. The reason for the lowest mean scores in hospital sector may be attributed to this reason.

As observed from Table 1, when the mean score for work life balance is high the corresponding women empowerment score is
also high. When the mean score for work life balance is low, the corresponding women empowerment score is also low. To find whether the work life balance and women empowerment are actually related to each other, correlation analysis is used. The following Table 2 is the correlation table.

**Table 2 showing the mean, standard deviation and correlation values of work – life balance and women empowerment.**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Sample Size</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Correlation Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work – life balance</td>
<td>90</td>
<td>64.46</td>
<td>8.2</td>
<td>0.973</td>
</tr>
<tr>
<td>Women empowerment</td>
<td>90</td>
<td>273.83</td>
<td>5.7</td>
<td></td>
</tr>
</tbody>
</table>

The above Table 2 shows the correlation between work life balance and women empowerment among 90 employees taken from education, hospital and banking sectors. The value of \( r = 0.973 \) is obtained showing a high degree of positive correlation between work life balance and women empowerment. Thus the null hypothesis is rejected and inferred that there is a high degree of positive correlation between work life balance and women empowerment. The following table shows the association between different educational qualification of the samples and their work life balance and women empowerment. The different educational qualifications of samples are categorized into 'below graduation level', 'undergraduates', 'and post graduates' and 'beyond post graduation level'.

**Table 3 showing chi square values for the different educational qualification of the samples and their corresponding work life balance and women empowerment scores.**

<table>
<thead>
<tr>
<th>Educational Qualification</th>
<th>Sample Size</th>
<th>Percentage</th>
<th>Chi Square value for Work life balance (calculated)</th>
<th>Chi Square value for Women Empowerment (calculated)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Below Undergraduate level</td>
<td>10</td>
<td>11.1%</td>
<td>13.82</td>
<td>89.14</td>
</tr>
<tr>
<td>Undergraduate</td>
<td>22</td>
<td>24.4%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Postgraduate</td>
<td>45</td>
<td>50%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beyond post graduation</td>
<td>13</td>
<td>14.5%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From Table 3 it can be seen that the calculated value of chi square for work life balance is 13.82 and that of women empowerment is 89.14. Both these calculated chi square values are greater than the table value of chi square which is 7.82 at 5% level of significance with 3 degrees of freedom. Therefore the null hypothesis that there is no significant difference in work life balance and women empowerment for different educational qualification of the samples is rejected and concluded that there is significant difference in the work life balance and women empowerment of samples for different educational qualifications.

The following table 4 is the two – way ANOVA table to show whether the difference in marital status i.e., married / single significantly, affect work life balance and women empowerment.

**Table 4 ANOVA table showing values for the marital status of the samples and their corresponding work – life balance and women empowerment scores.**

<table>
<thead>
<tr>
<th>Source of Variation (SS)</th>
<th>Sum of squares</th>
<th>Degrees of freedom (df)</th>
<th>Mean Square (MS)</th>
<th>F – ratio (Calculated)</th>
<th>F – ratio (Table)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Column</td>
<td>25.7</td>
<td>(2 – 1) = 1</td>
<td>25.7/1 = 25.7</td>
<td>25.7/4.9 = 5.24</td>
<td>F(1,1) = 161.44</td>
</tr>
<tr>
<td>Between rows</td>
<td>13.2</td>
<td>(2 – 1) = 1</td>
<td>13.2/1 = 13.2</td>
<td>13.2/4.9 = 2.69</td>
<td>F(1,1) = 161.44</td>
</tr>
<tr>
<td>Residual or error</td>
<td>4.9</td>
<td>(2 – 1) * (2 – 1) = 1</td>
<td>4.9/1 = 4.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>43.8</td>
<td>(4 – 1) = 3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The above table 4 shows the two – way analysis of variance (two – way ANOVA) for difference in marital status taken along the rows and work life balance and women empowerment taken along the columns. The table shows the calculated and table values of F for both variation between rows and variation between columns. For degrees of freedom $v_1 = 1$ and $v_2 = 1$, at $\alpha = 0.05$, it can be seen that the calculated value of F is small when compared to the table value of F which is 161.44. Thus the third null hypothesis is accepted and inferred that the differences in work life balance and women empowerment are not significant for differences in marital status.

**Findings and Recommendations**

From the above statistical analysis it can be seen that the mean score of both work life balance and women empowerment are high. In all the three fields i.e., education institutions or hospitals or banks regular time schedule is followed and ample holidays are granted. So, women are able to balance their work and family and hence stay empowered, unlike other industries like the IT sector or manufacturing sector.

Though the mean values of work life balance and women empowerment show high scores, the values are only little more than the high value, 60 being the high value for work life balance and 270 being the high value for women empowerment. The maximum score for work life balance is 105 and the same for women empowerment is 450. From table 1 it can be seen that the mean values of the two variables under study are close to high values only and not maximum values. Although it can be said that there is high work life balance and women empowerment, it still hasn't reached the maximum level or even close to the maximum level. It can be inferred that organizations have to work on providing sufficient work life balance policies and procedures so that women employees can find time to handle both their work and personal life efficiently.

And as seen from Table 2, there is a high degree positive correlation between work – life balance and women empowerment. Therefore, when organizations strive towards good work life balance, women empowerment also increases as per the statistical analysis and women can work in a stress free climate both in the organization and at home. A stress free environment is a good arena for good decision making.

Table 3 shows that there is association between educational qualification of the samples and their work life balance and women empowerment. The various categories of educational qualifications such as 'below graduation level', 'undergraduates', 'post graduates' and 'beyond post graduation level' has significant effect on the scores of work life balance and women empowerment as seen from the chi square statistic found in table 3. Hence it can be said that higher the qualification of women, the higher will be the women empowerment score and they will be in a better position to balance their work life and family life. This shows how important higher education is for women.

Similarly, table 4 shows the two – way analysis of variance (two – way ANOVA) for difference in marital status taken along the rows and work life balance and women
empowerment taken along the columns. For degrees of freedom $v_1 = 1$ and $v_2 = 1$, at $\alpha = 0.05$, it can be seen that the calculated value of $F$ is small when compared to the table value of $F$ which is 161.44. Surprisingly, the third null hypothesis is accepted and inferred that the differences in the work life balance and women empowerment are not significant for differences in marital status. This shows that irrespective of the marital status i.e. whether married or single, work life balance and women empowerment scores remain unchanged. This shows that it is in the hands of the women to balance her work and family life and also to stay empowered. Marital status cannot influence these two variables work life balance and women empowerment. The reason for such a result could be attributed to the fact that all the 90 women employees under study had work experience of more than 5 years according to the primary data collected. Hence they were able to balance their work and family life and also managed to stay empowered.

**Conclusion**

Work-life balance practices and policies focus on removing gender-based structural barriers to women's advancement. Practices such as flexi time, shorter working hours, job-sharing, tele-working, and child care services and special maternity leave arrangements help women to reconcile family and work-life. Consequently, it can be assumed that work-life balance practices and policies designed to acknowledge and support the multiple demands of family and work should foster women's career advancement. A recent study confirms that women are taking advantage of flexible work arrangements in order to meet their career goals and manage the complexity of their lives (Shapiro et al., 2007).

With the work – life balance practices and policies, women can prove themselves at work and at home. They can thus stay empowered in both the places. From the above findings and discussions it is clear that for empowerment of women a proper balance of work and life is very important. Providing higher education to women is also equally important. In India most of the organizations do not give importance to work life balance. They are not interested in encouraging women employees in the organization. But most of the European companies are striving to treat both men and women employees equally. Owing to increased public pressure and the realization of the competitive advantage that may result from having women in management positions (Burke, 1994a, b, Cassell, 1997), companies outside India have launched numerous work-life balance programmes to promote women's career advancement.

Companies with such programmes adopt practices such as flexi time, shorter working hours, job-sharing, tele-working, child care services and special maternity leave arrangements. Such programmes very rarely exist in Indian companies. Studies have shown that these practices increase employee satisfaction; work ethic and motivation (Friedman, 1992); reduce absenteeism and staff turnover rates (Galinsky and Stein, 1990); raise satisfaction with the balance between work and family (Ezra and Deckman, 1996); and diminish work-family conflict (Goff et al., 1990) and related stress.
(Johnson, 1995). This will pave a great way towards empowerment of women.

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Appendix I
Cronbach’s Alpha for Women Empowerment
The following table shows the calculation of Cronbach’s Alpha using reliability calculator. This calculator is based on the reliability calculator created by Del Siegle (dsiegle@uconn.edu)

<table>
<thead>
<tr>
<th>Subject1</th>
<th>Question1</th>
<th>Question2</th>
<th>Question3</th>
<th>…</th>
<th>…</th>
<th>…</th>
<th>Question98</th>
<th>Question99</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subject2</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>…</td>
<td>…</td>
<td>…</td>
<td>…</td>
<td>…</td>
</tr>
<tr>
<td>Subject3</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>…</td>
<td>…</td>
<td>…</td>
<td>…</td>
<td>…</td>
</tr>
<tr>
<td>Subject4</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>…</td>
<td>…</td>
<td>…</td>
<td>…</td>
<td>…</td>
</tr>
<tr>
<td>Subject5</td>
<td>2</td>
<td>2</td>
<td>2</td>
<td>…</td>
<td>…</td>
<td>…</td>
<td>…</td>
<td>…</td>
</tr>
<tr>
<td>Subject6</td>
<td>2</td>
<td>3</td>
<td>3</td>
<td>…</td>
<td>…</td>
<td>…</td>
<td>…</td>
<td>…</td>
</tr>
<tr>
<td>Subject7</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>…</td>
<td>…</td>
<td>…</td>
<td>…</td>
<td>…</td>
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<td>…</td>
<td>…</td>
</tr>
<tr>
<td>Subject85</td>
<td>3</td>
<td>4</td>
<td>3</td>
<td>…</td>
<td>…</td>
<td>…</td>
<td>…</td>
<td>…</td>
</tr>
<tr>
<td>Subject86</td>
<td>3</td>
<td>3</td>
<td>2</td>
<td>…</td>
<td>…</td>
<td>…</td>
<td>…</td>
<td>…</td>
</tr>
<tr>
<td>Subject87</td>
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<td>2</td>
<td>2</td>
<td>…</td>
<td>…</td>
<td>…</td>
<td>…</td>
<td>…</td>
</tr>
<tr>
<td>Subject88</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>…</td>
<td>…</td>
<td>…</td>
<td>…</td>
<td>…</td>
</tr>
<tr>
<td>Subject89</td>
<td>3</td>
<td>1</td>
<td>2</td>
<td>…</td>
<td>…</td>
<td>…</td>
<td>…</td>
<td>…</td>
</tr>
<tr>
<td>Subject90</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>…</td>
<td>…</td>
<td>…</td>
<td>…</td>
<td>…</td>
</tr>
</tbody>
</table>

Source: Primary Data

Cronbach’s Alpha = 0.774 from the above table. Since the Cronbach’s Alpha value is close to 1.0, the internal consistency of the items in the scale is greater.

Interpreting Cronbach’s Alpha
According to Gliem & Gliem (2003), “Cronbach’s alpha reliability coefficient normally ranges between 0 and 1. However, there is actually no lower limit to the coefficient. The closer Cronbach’s alpha coefficient is to 1.0 the greater the internal consistency of the items in the scale. Based upon the formula \( \alpha = \frac{rk}{1 + (k-1) r} \) where \( k \) is the number of items considered and \( r \) is the mean of the inter-item correlations the size of alpha is determined by both the number of items in the scale and the mean inter-item correlations. George and Mallory (2003) provide the following rules of thumb: “\( \geq .9 \) – Excellent, \( \geq .8 \) – Good, \( \geq .7 \) – Acceptable, \( \geq .6 \) – Questionable, \( \geq .5 \) – Poor, and \( < .5 \) – Unacceptable” (p. 231). It should also be noted that an alpha of 0.8 is probably a reasonable goal. It should also be noted that while a high value for Cronbach’s alpha indicates good internal consistency of the items in the scale, it does not mean that the scale is unidimensional”.

A Study on The Influence of Work Life Balance on Women Empowerment in Services Sector in Puducherry
A Study of Consumer Perception & Determinants of Hedonic Value for Non Food Products in India

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Dr. Shradha Shivani  
Professor  
BIT (Mesra)

Abstract

How do consumers choose whether to have a thick, creamy cake for dessert or a healthy but less tasty cup of fresh fruit? Whether to go on a luxury vacation for a week or spend the time finishing important project at work? Consumers often faced these types of choices between hedonic and utilitarian alternatives that are partly driven by emotional desires and partly by cold cognitive consideration. Hence, these choices represent an important sphere of influence on consumer decision-making. This investigative research tries to identify the determinants which affects the hedonic behavior of the buyer and develop a model which can predict the hedonism associated with the product. The study explores the psychographic, socio-economic and demographic dimension and finds to what extant these factors affects the value perception of the product. Previous research has established that hedonism plays a strong role in branding the product, but how individuals' dimensions play important role in determining product's hedonic image has not been explored deeply. For the study data was collected using quota sampling technique, from different inner and outer cities of India and respondents were contacted through the shop stop method. A series of discriminant analysis was run to develop the model. All measures were evaluated on SPPS 16. The results show that Marital Status, Age and Occupation are the main predictor of hedonism for apparel.

Key Words: Hedonism, Demographic, Buying Behavior, Non food products
Introduction
Consumers often face difficulty to choose between hedonic and utilitarian alternatives. These alternatives are partly driven by emotional desires and partly by cold cognitive deliberations. Hence, these choices represent an important domain of consumer decision-making. Emotional desires can often dominate functional motives in the choice of products (Maslow 1968). For example, when buying a house, females will generally see a luxury or hedonic feature such as big kitchen, view from the bedroom window, recreation facilities where as males will consider more utilitarian concern like distance from work, budget etc, an educated person will find buying a book, as hedonic where as an uneducated or less educated person may not feel the same.

Babin et al (1994) state that consumers can have multiple motives for buying something, among them the primary motive is termed as utilitarian. The evolution of shopping motives from only utilitarian to more of hedonic or pleasure seeking has been generated by an exponential growth in the number of retail outlets in India. They are set to revolutionize the shopping behavior of consumers and have an impact on their lifestyle. Bloch et al (1986) states that for most consumers shopping implies more than the fulfillment of a task and provides experience and non-utilitarian values. This study is also supported by Sheath (1983) Holbrook and Coffman(1985) Babin et al, (1994) and Arnold and Reynolds( 2003). Some other researchers including Fiore and Kim (2007) suggested that consumer experience shopping sometimes hedonic and some times only utilitarian at the same place.

Thaler (1985) and Monroe and Chapman (1987) found that utilitarian value is related with tasks that are easily accomplished thus any product linked with simple routine task completion like purchase of sugar or detergents is likely to be less in hedonic value as compared to a product with higher degree of information gathering and involvement such as cellular phones where the outlay is much larger and bargain seeking behavior may impact product purchase.

Some researchers have used the terms luxury and necessity in more deeper sense, which says that luxuries are inspired primarily for hedonic pleasure while necessities are required to meet more utilitarian purpose (Dubois, Laurent, and Czellar 2004; Kivetz and Simonson 2002).

Coming across the above foundation, as Batra and Athola (1991) state, the consumers' perception is based on the degree to which the products in question satisfy hedonic and utilitarian objectives, few question arises: why two people perceive the same product differently? why one find it luxury while other finds that only task completer ? Whether perception is effected by products own intrinsic or extrinsic attributes or is it buyer's orientations which changes the perception of a product. This research aimed to study the influence of consumers' determinants on hedonic and utilitarian value perception for non food products.

Review of Literature
The term hedonic is frequently used by the researchers to portray the experience of luxury and pleasure. At first, research need to know the antecedent of hedonism whether it is a personal trait or the outcome from the social
Pressure. As studies on hedonism suggests that, a good shopping experience could provide a hedonic value to consumer and result in impulse purchases. Cowling and Cubbin (1972) first used the term hedonic for correcting price index to measure quality. Rosen et al (1974) explained that a product's price is tagged as hedonic price that indicates that there are some specific attributes in that product. After that many hedonic price model come in the picture like; household production model, pediatric services demand, real estate valuation, value of neighborhood externalities, job satisfaction, digital computer industry and computer services demand, demand for cable television, breakfast cereals and valuation of public goods.

It was in 1982 when the word hedonic was first used in a consumption sense by Hirschman and Holbrook. Where they used term for fantasy. After that many researchers like Spegnberg Voss (2003), Batra, Athola, (1991) Dhar et al (2000) have done their research on hedonistic consumption. Wakefield and Inman (2003) suggest that consumers are generally less price sensitive when buying products and services that have luxury or fun associated with them and are ready to pay more. These results also got support from O'Curry and Strahilevitz (2001) who explained that individuals shop for hedonic alternative over a utilitarian one when the chances of receiving the selected items are low and when the chances of receiving the chosen item is high they shop for utilitarian substitute. Existing research exhibits that behaviour of customer differs depending upon their interpersonal influence (Bourne 1957; Mason 1981) However, a broader perspective of the customer's perception and their motives for purchasing the product needs to be explored.

In further literature review it has been found that that most of the products and services studied were functional in nature for example, Westbook (1980) studied cars, Oliver and Desarbo (1988) studied stock market transaction. Wirtz and Bateson (1999) studied bank services. Recent cross cultural study of Zsuzsa D. et al (2011) says that nonfood items like cellular phone and wrist watches have low functional content and these products are highly associated with social status and self image which puts them into luxury or hedonic category.

**Research Gap**

Previous research has established that hedonism plays a strong role in branding the product and importance of personal factors such as social class, gender, and relative income level in purchase decision (Williams, 2002). But the role of the buyer's attributes in determining product's hedonic image has not been explored deeply. This research attempts to find the predictors of hedonism of nonfood items like apparel. In view of the above the objectives of the study were -

1. To identify the individuals' determinants of hedonic value for apparel
2. To evolve a model that can help to predict the hedonic image of apparel.

**Research Methodology**

Given the objectives of the research, instrument was developed to measure product they bought, hedonic value drawn from for
product, the demographic profile of the consumers, their lifestyle. The demographic data collected include gender, age, marital status, education, family, and income, number of earning members, family size, and children, religious affiliation, ethnicity, occupation, mother tongue and state of origin in India. The Psychographic variables analyzed include shopping orientation, values and lifestyle. Psychographic variables were adapted from the various previous studies according to their relevance in the Indian context and while ensuring the reliability of the items through cronbach’s alpha coefficient. The hedonic value for the product has been calculated by the scales given by spangenberg, Voss et al (1997).

Data was collected in the months of September and October over the period of the business hours of the shop (usually 10.00 am-11.00pm) since studies have indicated that buyers’ behavior varies depending on the phase of the day (Skogster, uotila and ojala, 2008; sudman, 1980) effort was made to fill approximately one third of the questionnaire during the morning hours (11.00 am-3pm) and the next one third in the late afternoons (3pm-7pm) and the last one-third after 6 pm. It was considered that the visitors who buy the product during the weekdays and weekends could differ substantially along the variables of interest; (Blair, 1983). Therefore data was collected on equal number of weekends and weekdays at every destination. Sample was collected through quota sampling. Data were analyzed with the statistical package for social sciences (spss) version16.0 Descriptive statistics, bivariate analysis, discriminant analysis and multivariate analysis were adopted to developed the model.

**Description of Sample**

Respondents were from different parts of India though a majority was from Maharashtra and Madhya Pradesh. The sample consisted 20.2% of the age group 18 to 24, 28.0% of the age group 25 to 34 years, 31.6% of the age group 35 to 44 and 20.2% of the age group 45 to 54 years. The male and female ratio was tried to kept equal with male contributing 50.5% and female 49.5% in the sample ranging from both service and business class and educational qualification from schooling to professionals.

**Hedonic Value Perception for Apparel**

H0 1 - significant difference exists between hedonic value perception of apparel and demographic profile of the customers in India.

Table 1. *Hedonic Value Perception for Apparel (ANOVA)*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean Squares</th>
<th>df</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>149.291</td>
<td>1</td>
<td>289.886</td>
<td>.000</td>
</tr>
<tr>
<td>Gender</td>
<td>2.143</td>
<td>1</td>
<td>8.902</td>
<td>.003</td>
</tr>
<tr>
<td>Qualification</td>
<td>28.404</td>
<td>1</td>
<td>112.333</td>
<td>.000</td>
</tr>
<tr>
<td>Marital Status</td>
<td>627.218</td>
<td>1</td>
<td>847.899</td>
<td>.000</td>
</tr>
<tr>
<td>Occupation</td>
<td>14.621</td>
<td>1</td>
<td>74.209</td>
<td>.000</td>
</tr>
<tr>
<td>Family Size</td>
<td>10.558</td>
<td>1</td>
<td>16.979</td>
<td>.000</td>
</tr>
<tr>
<td>Annual Income</td>
<td>3.623</td>
<td>1</td>
<td>5.247</td>
<td>.023</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>8.74</td>
<td>1</td>
<td>9.63</td>
<td>.002</td>
</tr>
</tbody>
</table>

From the Anova table it is evident that there is significant difference (at .05 level of confidence) in the hedonic value perception and of apparel and customers demographic.
profile. Mean squares value indicates that marital status (627.218) and age (149.291) are strongly associated with hedonism especially for apparel.

**Predictors of Hedonic Value for Apparel**

In order to identify which demographic factor is best predictor of hedonism series of discriminate analysis has been run with Hedonism as the dependent variable. After analyzing all demographic variables for apparel, the strong strength of the model is inferred. The discriminant function is able to classify 97.7% of original group cases correctly.

Table 2 & 3 shows the value of Wilk's lamda and probability value of F-test for statistical significance of the discriminant function which ranges between 0 and 1 and with lower value (0.314) of marital status indicating a better discriminating power of it. From table 2 it can be inferred that (p=0.000) discrimination between the groups is highly significant.

From table 4 of structure matrix it can be said that marital status (.292) and age (.148) and occupation (.086) are the better predictor of hedonistic value for apparel in central and western part of India. Probability is that almost (78%) customers in these regions would be hedonistic for apparel.

**Table 2. Model summary**

<table>
<thead>
<tr>
<th>Function</th>
<th>Eigenvalue</th>
<th>Wilks’ Lambda</th>
<th>Chi-square</th>
<th>df</th>
<th>Sig</th>
<th>Canonical Correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>25.710</td>
<td>0.037</td>
<td>1144.834</td>
<td>9</td>
<td>.000</td>
<td>0.981</td>
</tr>
</tbody>
</table>

**Table 3. Model summary (Standardized Canonical Discriminant Function Coefficients)**

<table>
<thead>
<tr>
<th>Function</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Annual Income</td>
<td>-2.076</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>2.174</td>
</tr>
<tr>
<td>Gender</td>
<td>-1.893</td>
</tr>
<tr>
<td>Occupation</td>
<td>3.816</td>
</tr>
<tr>
<td>Family Size</td>
<td>-0.074</td>
</tr>
<tr>
<td>Qualification</td>
<td>-0.169</td>
</tr>
<tr>
<td>Age</td>
<td>5.122</td>
</tr>
<tr>
<td>Marital Status</td>
<td>0.314</td>
</tr>
</tbody>
</table>

**Table 4. Model summary (Structure Matrix)**

<table>
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</tr>
</thead>
<tbody>
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</tr>
<tr>
<td>Marital Status</td>
<td>0.292</td>
</tr>
<tr>
<td>Age</td>
<td>0.148</td>
</tr>
<tr>
<td>Occupation</td>
<td>0.086</td>
</tr>
<tr>
<td>Qualification</td>
<td>0.078</td>
</tr>
<tr>
<td>Family Size</td>
<td>-0.062</td>
</tr>
<tr>
<td>annual income</td>
<td>0.049</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>0.020</td>
</tr>
<tr>
<td>Gender</td>
<td>0.006</td>
</tr>
</tbody>
</table>

**Model Development**

After identifying that Marital Status, Age and Occupation are the main predictor for hedonism of apparel second set of discriminant analysis was run by taking only these three variables as independent variable and hedonism as dependent variable. Results in table 5 depicts that again marital status come out as strongest predictor (.588) of hedonism.

From table 6 and 7 we prescribe a model taking Unstandardized coefficients discrimination that if the value of discriminant score (Y) for of a customer
comes more than 1.442 than he could be considered hedonistic for apparel. (Model has been successfully tested under similar conditions and predicted 97.7 % cases correctly)

Table 5. Model summery (Structure Matrix)

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marital Status</td>
<td>0.588</td>
</tr>
<tr>
<td>Age</td>
<td>0.344</td>
</tr>
<tr>
<td>Occupation</td>
<td>0.174</td>
</tr>
</tbody>
</table>

Table 6. Model summery (Canonical Discriminant Function Coefficients)

Unstandardized coefficients

<table>
<thead>
<tr>
<th>Function</th>
<th>Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>1.197</td>
</tr>
<tr>
<td>Marital Status</td>
<td>1.036</td>
</tr>
<tr>
<td>Occupation</td>
<td>2.332</td>
</tr>
<tr>
<td>(Constant)</td>
<td>-9.507</td>
</tr>
</tbody>
</table>

Table 7. Model summery (Functions at Group Centroids)

<table>
<thead>
<tr>
<th>Hedonism</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less Hedonic</td>
<td>-4.255</td>
</tr>
<tr>
<td>Hedonic</td>
<td>1.442</td>
</tr>
</tbody>
</table>

Prescribed Model

Discriminant Score For Apparel

\[ Y^\prime = -9.507 + age (1.197) + Marital status (1.036) + occupation (2.332) \]

Results

Table 8. Model summery (Descriptive analysis)

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>Age</th>
<th>Occupation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>18 To 24</td>
<td>Service Business</td>
</tr>
<tr>
<td>Married</td>
<td>25 To 34</td>
<td>35 To 44</td>
</tr>
<tr>
<td></td>
<td>45 To 54</td>
<td></td>
</tr>
<tr>
<td>Functional</td>
<td>89.50%</td>
<td>8.30%</td>
</tr>
<tr>
<td>Hedonic</td>
<td>10.40%</td>
<td>91.50%</td>
</tr>
</tbody>
</table>

Table 9. Model Summery (Descriptive Analysis)

<table>
<thead>
<tr>
<th>Annual Income</th>
<th>Up To Or Less Than 5 Lacks</th>
<th>6 Lacks To 10 Lacks</th>
<th>11 Lacks To 15 Lacks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Functional</td>
<td>26.00%</td>
<td>36.20%</td>
<td>14.80%</td>
</tr>
<tr>
<td>Hedonic</td>
<td>74.00%</td>
<td>63.80%</td>
<td>85.20%</td>
</tr>
</tbody>
</table>

The results from descriptive analysis from table 8 and 9 also shoes that apparels have hedonic value majorly for the married couples(91.60%) between the age group of 35 to 44 (97.5%) and 45 to 54 (97.00%). Customers who are better educated business class (97.30%) especially from the central part of India whose income is more than 10 lacks (85.20%) can be the target customers for hedonic marketing mix. Hence if company which is introducing their clothing line in central part of India can tag hedonic prices for their products specially designed for middle aged business class married customers.

Future Research

While doing this research, it has been recognized that there are diverse areas where further research can be done to extend this study to look at hedonic and functional value of the product. In this study major determinants which affect the hedonic value perception came as marital status, occupation and age. Further research...
can be done by eliminating other variables used in this analysis except these three and adding some different factors to find relationship between them. This study does not imply on the food products thus there is a scope for future study in this area.

Conclusion
The study provides lot of managerial implication at strategic level, for example, identification of the hedonism in terms of psychographic and behavioral dimensions can assist in designing promotional themes, and socioeconomic and demographic characteristics can facilitate the right marketing mix of the product and developed the better understanding of an emerging consumer market. This study can be applied and give fruit full results on Generation Y who is a go getter having higher disposable income with availability of easy credit and can indulge in impulse buying.

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Social Networking Sites - Effective Medium to reach the Youth for Marketing the Products

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Abstract

Social networks are becoming a synonym to quick marketing. It is used by companies for catering different objectives. Social networking sites are not just a mere communication tool but have a wider aspect for an organization. The basic objective for an organization is that it needs a larger market share which can only be achieved with larger target audience. Traditional marketing believed higher the customer base, higher will be the communication cost. But the emergence of Social networking has drastically changed this mindset. This paper aims to find out the effectiveness of Social networking on the youth's decision to purchase a product. Also, we aim to identify how effective is Social Networks as a medium of communication to seek information, create awareness about, generate sales, give feedback and retain a customer. Research was carried out with a sample size of 250 consumers from Nasik City, through well-designed questionnaire. The questionnaire was designed to identify general response towards social networking sites and also to know how effective it would be for marketing various products and services to these young consumers. Various Statistical tools used for data interpretation included Pearson's Correlation Coefficient, Chi-square test. The study revealed that, there is an opportunity to market the products to young consumers through social networking sites. As they spend more of their time on these sites and positively respond to the information placed on these sites.

Key Words: Social Networks, Traditional Marketing, Target Audience
Introduction
Social networks are used as a marketing tool for many different purposes. MySpace, Facebook, YouTube, etc. These websites have rocketed to the top of the most visited website list in a very short time and continue to increase in popularity. The great advantage of social networks to marketing is their tendency to propagate information virally. These networks allow thousands of people to network with each other, meeting new people that may benefit their business or services being offered. Networking with different people through these sites is an excellent way to create new contacts, and potentially create new customers or business associates. Companies use these sites to gain information on their target market, and how people feel about their products. They also use these sites to gain information on their competition. The most valuable part of marketing using social networks is that it allows people to market their services to a large market at no cost. Thousands of people enter these sites daily. Therefore they are able to reach a mass market free of charge. The popular network Facebook offers a free classifieds section where people are able to post things such as job listings, items for sale, or services available. Companies of all sorts are able to place advertisements for their products or services, as well as post job opportunities. People are also able to market themselves by listing their skills and abilities for employers to view. One large benefit to marketing on social networks is the pass along factor. Users of these networks tend to pass along items that are of interest to them, or that they believe their friends will find interesting. Members are also able to pass along their own postings to other site members, whether they know them or not. Placing paid advertisements, such as banners, on these sites can also benefit a company greatly based on the amount of hits the sites receive each day. Thousands of members view these pages daily which means ads placed on these sites will reach a mass audience. Marketers are also able to monitor social networking sites, to read up on how people are viewing their brands. These sites allow them to see what their competitors are doing, and how customers view the competition. Receiving this feedback from customers allows marketers to understand what the target market is looking for, what people like about their products or services, and what needs to be improved. Having social networks to help them find this information is quite beneficial to marketers. Many of the social networking sites allow users to create groups regarding specific topics. This makes it much easier for marketers to find much of the information regarding their target market, and their competitors. Social networks are very valuable marketing tools. With the recent growth in popularity of many of the networking websites like Facebook, marketers are able to market their brands to a mass market. Many brands are concentrating to tap the social networking class people, mostly centered by young and middle class population, to build images and attract new customers. An advantage of social networking sites is that all websites come with different set of offerings and features with common goal of social networking. A business man can surf through and explore which site suits his products and methodology of promotion and
more importantly get product feedbacks. Thus, instead of promoting business through other traditional mediums, the corporate world is increasingly tapping innovative business prospects with their links from sites like Facebook, Twitter, and MySpace etc. This research paper tries to understand, how social networking sites can be useful medium for marketing the products, with reference to young consumers.

**Necessity of Research**

The Internet is the third media consumed after TV and Radio and is predicted as the longer media used per hour in 2020 (Carat, Aegis Group plc, 2010). With the globalization process, a company is faced to multitude of interrogations, like, how my company could be locally and internationally known? How to differentiate from my competitors? Internet is a new information technology tool that has dramatically changed the way of life. It has become an integral part of modern life across the world. There is ongoing paradigm shift from traditional (brick and mortar store) to internet-based purchases. Social networking sites like MySpace, Facebook, and Twitter are used tremendously by young audience. Frequent users of these social networking sites not only engage in more activities and have a more positive attitude about these sites, but they are also far more interested in profiles from their favorite companies.

The objective behind this research paper is, to understand the young consumer's behavior towards the social networking sites. The study also attempts to know the different types of social networking sites visited more frequently by the young consumers from Nasik City. The study may give valuable insights that might help organizations develop effective strategies leading to increase response towards Marketing tactics used to reach young consumers through these social networking sites.

**Literature Review**

Social Networks operate under an autonomous business model, in which the social network members serve dual roles as both the suppliers and the consumers of content. (Terri Willard, 2009). The usage of social networking sites for sales can replace the dynamics of selling. (Chris Miller, 2009). It would make the whole process cumbersome free. There would be no travel, hence saving costs, time and geographic boundaries. The impact created by direct face to face sales pitch can be achieved through the virtual media. Social networking enables ways of reaching people, which can be lucrative. (Merrium Webstar, 2010). The sales pitch is made through a webinar. This presentation is viewed by the client on the computer, mobile bi-proof phone, Blackberry or printouts. The download files also have audio narrations, jpeg images and slides. The webinar is led by an expert on helping sales professionals capitalize on social networking sites. So, everything a sales executive need to know is taught on how to use social networking sites to close more sales. (Business Wire, 2010). The study on the top 5 brands of social network shows that considerable time is being spent on Social Networking Sites (SNS), and it will only show an increasing trend in the future.
(Suzy Bauch Leilaniihan, 2006). Waters, Burnett, Lamm, Lucas (2009) through their study established how the social networking sites allow organizations to create profiles and become active members. Organizations have started incorporating strategies into their PR programming, which includes disseminating a message through social networking. Earlier, this was done purely through newspapers and magazines. Young people often spend a lot of time on the Internet, browsing for information and using social networking sites. Many universities have websites that provide opportunities for sponsorship. Marketing can be done through these websites or through advertising on social networking sites. (Evin Sandler, 2010). (D. Tapscott, 2008) states that teenagers are turning to their friends for online shopping advice, making it challenging for Marketers who are trying to become “friends” with members of this demographic. (B.B.Morrison ans A. Weaver, 2008) add that Social Networking Sites are about a bottom up creation of information and interaction, which has significant potential for marketers. The potential for e-commerce information sharing makes these Social Networking Sites of interest to Marketers, advertisers and others in the commercial arena, although certainly the information sharing potential of Social Networking Sites is of interest to many domains (M.M.Wasko and S.Faraj, 2000). There has been limited research in to opinion sharing aspects on these social media technologies. Popular pres articles provide interesting commentary about youth utilization of SNSs for e-commerce. For example, (K. Rutledge, 2000) indicates that younger internet users desire low-cost and convenient ways to purchase products like music, books and apparel online. In fact, (K. Rutledge, 2000) notes that, in 2000, teenagers spent $153 billion on themselves and contributed to another $33 billion from input into their family’s grocery shopping. Similarly, (D. Tapscot, 2008) comments that, while teenagers do not directly spend a lot of money online yet, as many of them do not have credit cards, they spend a lot of time on the internet consulting about products. (D. Tapscot, 2008) also believes teenagers are a crucial part of online buying, with students in 2006 earning almost $200 billion a year and purchasing $190 billion worth of goods. In fact, people aged 21 and under influence 81% of their families' apparel purchases and 52% of their car choices (D. Tapscot, 2008). In discussing how teenagers are turning to their friends for shopping advice online, D. Tapscot comments that this makes it challenging for marketers who are trying to become 'friends' with potential consumers in this market. Since it is obvious that businesses consider the youth market a crucial demographic, it is worthwhile to investigate the online information behaviors of this demographic in a way that assists marketers in understanding youth behaviors on Social Networking Sites. There has been less research in to the use of these Social Networking Sites for information sharing for ecommerce purposes, which requires a multidisciplinary approach (J. Hunsinger, 2005). In this emerging online social networking domain, there are several unanswered questions concerning the subject of information sharing on social network platforms. What is the relationship between social media and information sharing?
Businesses and other organizations are looking to social media as a way to connect with potential customers and stakeholders in order to share information. However, there are differences among types of users of different Social Networking Sites.

**Objective of the Study**

To study the inclination of young consumers towards Social Networking Sites with respect to buying online, seeking information about the product, entertainment, keeping touch with the peers etc.

The intention behind this objective is to know, for what major reasons the young people are attracted towards Social Networking Sites as this is not well understood due to limited research, especially in e-commerce area.

- To know how social networking sites will be an effective medium to reach young consumers by the companies for marketing their products.
- By studying this objective, researcher can be in position to generalize that; Social Networking Sites can be a significant aid to companies and other organizations as they develop marketing, advertising and other information disseminating strategies to reach potential young consumers.
- To know how social networking sites will be an effective medium to generate awareness of new products among the young consumers.
- By studying this objective, researcher can try to analyze whether social networking sites will be an effective medium to generate awareness of new products among the young consumers.
- To know whether Social Networking Sites can be helpful in increasing traffic and sales of the products.

By studying this objective, researcher can be in position to know whether Social Networking Sites can be helpful in increasing traffic and sales of the products.

**Hypothesis**

The following hypothesis can be proposed:

- **H₁**: Social Networking Sites are not effective medium to reach young consumers by the companies for marketing their products.
- **H₂**: Social Networking Sites are effective medium to reach young consumers by the companies for marketing their products.
- **H₃**: Social Networking Sites are not effective medium to generate awareness of new products among the young consumers.
- **H₄**: Social Networking Sites are effective medium to generate awareness of new products among the young consumers.
- **H₅**: Social Networking Sites cannot help in increasing traffic and sales of the products.
- **H₆**: Social Networking Sites can help in increasing traffic and sales of the products.

**Research Methodology**

Research design, population, and sampling:

This research employed multiple methodologies (secondary data analysis, and survey) and is also based on cross-sectional study. The research is also based on theoretical perspective. For this purpose screening of various marketing journals were taken for literature review basically to find out if similar study exists.

The research was both primary and secondary in nature. The primary research conducted through survey helped in analyzing the inclination of young consumers towards Social Networking Sites with respect to buying online, seeking information about the product, entertainment, and keeping touch...
with the peers etc. Analysis of secondary data helped in understanding the prior work on the same or related topic and also provided insights about young consumer's behavior and response towards social networking sites that can be leveraged for promoting the goods and services. It provided an impetus to further narrow down the research and test the hypothesis. Research was carried out with 250 consumers from Nasik city of 18-30 age groups, through well-designed questionnaire, which gave the data of young consumer's behavior and response towards social networking sites. The Questionnaire was designed to identify general response towards social networking sites and also to know how effective it would be for marketing various products and services to these young consumers.

**Research Design**

**Primary Data:**
The primary research was conducted through survey. The data collection method was direct structured questionnaire to consumers. The Questionnaire was designed to identify inclination of young consumers towards Social Networking Sites with respect to buying online, seeking information about the product, entertainment, and keeping touch with the peers etc and also to know how effective it would be for marketing various products and services to these young consumers.

**Secondary Data:**
Sources of secondary data included Marketing Journals, Websites etc. The data was also collected from website outlook.com and alexana.com, which give data on search analytics. All these helped in authenticating and getting a very objective view of the study. Total 250 respondents were selected in this study.

**Sampling Design:**
**Random Sampling**

1. **Sampling unit:** Consumers (Male, Female of 18 – 30 years of age group)

**Sample size:**
Consumers – 250

The data for page visits of the Facebook was collected on daily basis for past 7 days.

1. **Data Analysis and Testing of Hypothesis**

**Table No.2 Inclination of young consumers towards Social Networking Sites**

<table>
<thead>
<tr>
<th>Reasons to be connected with Social Networking Sites</th>
<th>Buying Online</th>
<th>Seeking information about the product</th>
<th>Entertainment</th>
<th>Keeping touch with the peers</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency/Percentage</td>
<td>16</td>
<td>6%</td>
<td>98</td>
<td>40%</td>
<td>250</td>
</tr>
<tr>
<td>Percentage</td>
<td>6%</td>
<td>40%</td>
<td>8.8%</td>
<td>46%</td>
<td>100%</td>
</tr>
</tbody>
</table>

(Source: Questionnaire)
Fig No. 1

Inclination of young consumers towards Social Networking Sites

- 46% Buying online
- 48% Seeking information about the product
- 6% Entertainment
- 8.80% Keeping touch with the peers

(Source: Questionnaire)

The above table no. 2 was analyzed using chi-square test, to know whether there is association between young consumers and reasons to be connected with social networking sites. The calculated chi-square $X^2$ value is 150.17 for 3 degrees of freedom. The critical chi-square value (by referring table) is 7.815 at 0.05 level of significance for 3 degrees of freedom. Since the calculated chi-square value of 150.17 is far greater than the critical chi-square value of 7.815, there is a strong evidence to reject the null hypothesis, $H_0$: Social Networking Sites are not effective medium to reach young consumers by the companies for marketing their products and accept the alternate hypothesis, $H_1$: Social Networking Sites are effective medium to reach young consumers by the companies for marketing their products.

Further analysis was done to know whether there is correlation between seeking information for new products and Facebook users: The data was analyzed using Pearson's correlation coefficient between seeking information and no. of Facebook users. At 95% confidence interval, $r = 0.99$, which indicates that, there is a positive correlation between seeking information for new products and Facebook users. From this it can be inferred that, Facebook users have a stronger correlation with seeking information as compared with buying online. Therefore, hypothesis, $H_2$: Social Networking Sites are effective medium to generate awareness of new products among the young consumers can be accepted and hypothesis, $H_1$: Social Networking Sites can help in increasing traffic and sales of the products can be rejected.

Findings

The study revealed important findings which can be useful for the Marketing Department of the Companies.

- The most preferred Social Networking site by the young consumers is Facebook.
- Young population is inclined towards social networking sites the major reason being keeping in touch with their communities. The word of mouth publicity is very high and this can be leveraged for Marketing of the products by the companies to generate awareness of new products in the market.
- 40% of young consumers are interested in seeking information about the products, and they often tell their friends about the products and create interest in them.
- The study also gives the interesting finding that, young consumers still are not inclined towards buying online. Rather they believe in shopping at physical stores and have touch and feel approach.
- 9% of young population visit social networking sites only for entertainment, having no other specific reason.
Conclusion

- Most of the young population likes to stay in touch with friends and family: it was found that, connecting with friends and family was the biggest reason to use a social networking site. This was because their friends form the central point of their social networking activities, which revolves around communicating. This nature of consumer behavior can be useful for the marketers to make their promotional messages reach faster.

- Youth activity on social networking sites focuses on communicating. The most popular activities done by youths on Social Networking Sites revolve around looking at profiles, searching for someone, or updating one's own profile. Activities like looking for an event, watching a video, or listening to music take a significant back seat to relationship building. Marketers can take this opportunity of relationship building of consumers with their brands.

- Age and activity level influence youth's opinions about Social Networking: Most youths believe that most of their friends use social networking sites regularly. But those who use social networks daily are more likely to rely on them to keep track of friends and to use them to meet new people. Marketers can use this chance to create a buzz through Public relations activities by using these social networking sites.

- Therefore, there is lot much virtual space available for marketers to reach their target customers effectively and thus social networking sites can be effective medium to market the products by various companies.

Managerial Implications

With millions of visitors each month, respectively, Facebook and MySpace attract the attention of marketers interested in reaching those users. The most common approach is to set up a profile on these sites that members can join, or “friend”. For example, the movie “X-Men”: The Last Stand” has more than 2 million MySpace user as friends. This type of approach can work for marketers who have such strong appeal to the core youth audience. Marketers can encourage “Friending”. Marketers can place their page on social networking sites where they can have their friends who like the brand and better relationship can be developed between brand and a person. The implications of the findings are that, organizations interested in marketing to this youth demographic should consider the variety of information behaviors inherent in this segment based on being connected and being engaged in social networking sites.

Limitations of the study

The research is limited in scope to examine the young consumer behavior towards social networking sites of the targeted population in Nasik city from western Maharashtra, which can limit the results from being generalized to other population. More studies including larger demographic group/s should be conducted to help validate the findings. This study reflects and is strictly limited to the consumer response-as reported by consumers- for the response towards Social Networking Sites. Before having head-over-heels in to social networking, marketers need to consider how they will approach this community, especially.
the heavy, frequent users who are most likely to virally spread their enthusiasm for a new product or service.

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An Empirical Study of PSU Stocks- A Performance Evaluation

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Abstract

The study aims to evaluate the performance of individual selected PSU stocks of banking and non-banking sector listed on the National Stock Exchange (Allahabad Bank, Dena Bank, Oriental Bank of Commerce, UCO Bank, Dredging Corporation of India Ltd, NALCO, NTPC, MMTC and ONGC). An in-depth study of various financial tools like Alpha, Beta, Standard Deviation and Sharpe's ratio are used. The returns for each of the above stocks and the CNX PSE index are calculated on daily basis for the period 2007-10. The results of the study will be helpful for the investors and researchers who wish to invest in public sector, large capitalized stocks. Calculated results are in favour of banking sector PSU portfolio rather than a diversified portfolio. This suggests that investors who are not risk averse should rather invest in a banking portfolio of PSU stocks in the long term.

Key Words: Alpha, Beta, Standard Deviation, Sharpe's Index.

Introduction

Portfolio theory was originally proposed by Harry Markowitz in the 1950s that made an attempt to quantify the risk of a portfolio and developed a methodology for determining the optimal portfolio. He concluded that the expected return on a portfolio is the weighted average of the expected returns on the individual securities in the portfolio whereas the portfolio risk is affected by the standard deviation of the returns as well as the correlation coefficients among security returns. The co-movement between the returns of securities is measured by covariance and coefficient of correlation. The coefficient can vary between +1 and -1. Once the efficient frontier and the risk-return indifference curves are mapped, the optimal portfolio is found at the tangency between the efficient frontier and a utility indifference curve. The problem with this model was that it required vast data as it required n (n-1)/2 covariance terms if there were n securities. To overcome this William Sharpe developed the Capital Asset Pricing Model which requires 3n+2 estimates. The capital asset pricing model explained the relationship between risk and return for an efficient portfolio and that of between risk and return for an individual security. For efficient portfolios the
relationship between risk and return is depicted by the straight line. The slope of the line i.e. beta of the security is used to measure the systematic risk.

PSU universe has become quite significant in the stock market. The aggregate market capitalization of the 37 PSUs has increased by Rs 5 lakh crore, (68.7%) from January 1, 2009 till the end of November 2009. From Rs 7.32 lakh crore as on January 1, 2009 it has risen to Rs 12.35 lakh crore on November 30, 2009. The PSUs now account for almost 30% of the market capitalization of the total universe of listed companies in India. Other than the global meltdown that adversely affected non state supported companies, the increased majority with which the UPA came back in the second term also increased the value of these companies. The divestment programme of the government also affected these stocks and the shares of PSU stocks started appreciating. Along with ONGC which was the numero Uno in terms of market capitalization, the other leading stocks during the period were NTPC, MMTC, Engineers India, BEML, Hindustan Copper, STC, SAIL, Bharat Electronics, Neyveli Lignite, NMDC and GAIL.

The present paper focuses on the analysis of some leading PSU stocks on the basis of market capitalization. It compares returns of banking stocks and non-banking stocks mostly belonging to the mining and energy sector. The banking sector is taken since it represents the economic growth of the country.

**Review of Literature**

Numerous studies have found evidence of a strong relationship between the risk and return of a portfolio. Ronald J Surz used average allocation, return variability, income yield and beta as a measure of risk for evaluating portfolio performance. Craig W. French, 2002 probed and concluded that the expected yield to the investor is the sum of return on his capital at risk free lending rate and an expected return for risk taking which depends only on the risk taken and is independent of his capital.

In a paper in the February, 1958, Review of Economic Studies James Tobin introduced the concept of dominance. Tobin envisioned an investor who was free to select his portfolio from a set of risky assets and one riskless asset - cash. He showed that one set of relative proportions of the risky assets would dominate all other possible combinations in the sense that for any given level of risk it gave the investor "the highest possible expectation of return available to him at that level of risk". Claudio Boido and Giovanni Fulei did a study on “A risk contribution approach to asset allocation”. As per this, marginal contribution to risk approach is used where given the portfolio total risk level, 'no skill weights' or 'neutral weights' can be represented by those who realize risk budgeting characterized by maximum diversification of the downside risk. This result is obtained by equalizing the marginal risk contribution of the single assets in the portfolio.

Mebane T. Faber in “A Quantitative Approach to Tactical Asset Allocation” tested a non discretionarv trendsetting model on various markets and concluded that utilizing a monthly system since 1973, an investor would have been able to increase risk adjusted returns by diversifying portfolio assets and...
employing a market timing solution. Eugene F Fama and Kenneth R French (2004) concluded that the version of the CAPM developed by Sharpe (1964) and Lintener (1095) has never been an empirical success since the relation between beta and average return is flatter than predicted by the Sharpe-Lintener version of the CAPM. Even passively manage funds which concentrate on low beta stocks tend to produce positive abnormal returns. However, the central predictions of the Black version of the CAPM, that market betas suffice to explain expected returns and that the risk premium for beta is positive seem to hold. Fischer Black and Michael C Jensen grouped securities into portfolios in such a way that the portfolios had a large spread in their betas. Contrary to the predictions of the traditional form of the model, high beta securities had significantly negative intercepts and low beta securities had significantly positive intercepts. Amit Joshi in his study on the stocks of two sectors concluded that the systematic risk of the banking sector was lower than portfolio of real estate sector and portfolio of both the sectors.

**Research Objectives**
The present study aims to analyze the stocks of selected public sector companies namely Allahabad Bank, Dena Bank, Oriental Bank of Commerce, UCO Bank, Dredging Corporation, NALCO, NTPC and ONGC. The research objectives of the study are as follows:

- To study the historical returns and risk of selected PSU stocks.
- To do a performance evaluation of the two portfolios-one with only banking PSU stocks and the other with non banking PSU stocks, basically metal & energy sector companies.

- To compare the returns and volatility of a portfolio of select banking companies and a portfolio of non banking companies.

**Research Methodology**
Eight selected PSU stocks are selected based on spectacular growths in market capitalization in the past three years. Four of the above are from the banking sector, whereas the rest are from the nonbanking sector (metal and energy). The present research work is a study of analyzing the eight public sector companies of banking, metal and energy sectors by using portfolio management techniques. Various parameters would be used to ascertain as to how the script have moved historically. The individual returns as well as the portfolio return are calculated on the basis of daily closing prices of the sample stocks and CNX PSE index taken from nseindia.com. The portfolio returns of the portfolio of sample banking PSU stocks and portfolio of sample non banking stocks are also compared. The risk of the above two portfolios as well as the individual security risks are calculated and analysed. The individual risks as well as the portfolio risks are evaluated with tools like standard deviation and systematic risk. It has been assumed that equal proportion is being invested in each scrip of the portfolio.

**Research Tools**
PSE index whereas the returns taken for the study are daily returns from April 1, 2007 to March 31, 2010. The market return is the
return of the CNX PSE index. The individual scrip return is calculated by the following formula.

\[ R_j = \log (P_t - P_{t-1}) \]

Return premium is the actual return minus the risk free rate of return. The risk free rate is taken as the weighted average 91 day treasury bill return in this study (5.88%).

Beta (slope) in the CAPM is the measure of systematic risk and it is the ratio of covariance between market return and the security’s return to the market return variance. Alpha (intercept) is the return of a particular security when the market return is zero. It is the sensitivity to market movements and is the slope of the regression line of portfolio return premiums against market return premiums. The single index model developed by William Sharpe states that:

\[ R_j = \alpha + \beta (R_m) + \epsilon_j \]

where \( \epsilon \) represents the error term and is considered as zero.

Standard deviation measures the volatility in the stock prices and is a tool to find the variation in the prices in any security. Higher the standard deviation, higher is the volatility. The correlation coefficient reflects the degree of co-movement between two variables. This can vary between +1 and -1.

Sharpe ratio is used to analyze the relationship between the portfolio’s additional return over the risk free return and total risk of the portfolio measured in terms of standard deviation.

**Interpretation**

A) Performance Evaluation Of Stocks

After tabulating the daily closing NSE prices of the eight companies under survey for the three years ending 31, March 2010, their mean returns are calculated. While evaluating individual securities, the annualized mean return of UCO Bank was the highest followed by Dena Bank and NALCO. Table 1 reveals the values of mean returns, Beta, Alpha and standard deviation of individual stocks of the sample. Using the market model, the return of a security when the market return is zero (alpha) is calculated and found to be highest for UCO Bank followed by Dena Bank. The same was calculated and found to be negative for ONGC. The alpha values are shown in diagram 1.

<table>
<thead>
<tr>
<th></th>
<th>ALLBD BANK</th>
<th>DENA BANK</th>
<th>OBC</th>
<th>UCO BANK</th>
<th>DREDGING CORP</th>
<th>NALCO</th>
<th>NTPC</th>
<th>ONGC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean return</td>
<td>0.15</td>
<td>0.19</td>
<td>0.14</td>
<td>0.20</td>
<td>0.11</td>
<td>0.15</td>
<td>0.08</td>
<td>0.08</td>
</tr>
<tr>
<td>Annualized return</td>
<td>53.66</td>
<td>69.71</td>
<td>51.76</td>
<td>71.56</td>
<td>40.15</td>
<td>54.75</td>
<td>29.54</td>
<td>27.87</td>
</tr>
<tr>
<td>Beta</td>
<td>0.93</td>
<td>1.13</td>
<td>0.85</td>
<td>0.96</td>
<td>0.96</td>
<td>0.90</td>
<td>0.97</td>
<td>1.03</td>
</tr>
<tr>
<td>Alpha</td>
<td>0.07</td>
<td>0.09</td>
<td>0.07</td>
<td>0.11</td>
<td>0.03</td>
<td>0.07</td>
<td>0.00</td>
<td>-0.01</td>
</tr>
<tr>
<td>Std Deviation</td>
<td>3.12</td>
<td>3.83</td>
<td>3.30</td>
<td>3.45</td>
<td>4.00</td>
<td>3.78</td>
<td>2.62</td>
<td>2.75</td>
</tr>
</tbody>
</table>

The standard deviation as depicted in diagram 2 shows the level of volatility in these stocks. The volatility of Dredging Corporation Ltd is the highest followed by Dena bank and NALCO. The standard deviation is an absolute figure and only helps in comparing
As per the market model, the portfolio return is the weighted mean return of the individual stocks in the portfolio. The weights are the proportion of amount invested in each security which is taken as equal proportion in the present study. As shown in Table 2, the annualized average return of the portfolio of all sample stocks is 36.5% which is higher than index returns (31.37%). The excess return on the portfolio is the actual return minus the 91-day Treasury bill return. The annualized excess return is 30.62% for the sample PSU stocks which is higher than the CNX PSE index (25.49%). This is also higher than the annualized returns of the CNX Nifty (27.15%).

While evaluating portfolio risk, it was seen that the standard deviation of the portfolio was 2.43 and it was much lower than the standard deviation of all the individual stocks studied. The portfolio chosen is less volatile than the index as the beta is less than one. The annualized standard deviation of the portfolio was 46.43. The intercept of the portfolio was positive (.05%). This is the return earned by the portfolio when the market return is zero. The correlation coefficient measures the degree of co-movement between the two

Diagram 3

B) PERFORMANCE EVALUATION OF THE PORTFOLIO

Diagram 3 depicts the beta values of individual stocks. This indicates the level of sensitivity of the security returns to the index returns and indicates the systematic risk of the security. To calculate beta, the CNX PSE index was taken for the financial years 2007 to 2010. The systematic risk was least for Oriental Bank of Commerce and NALCO but was highest for Dena Bank and ONGC. The scrips Dena Bank and ONGC are slightly more volatile than the PSE index. The correlation coefficient was calculated for all. The chosen securities were seen to be negatively correlated against the CNX PSE index.

The correlation coefficient measures the degree of co-movement between the two

Diagram 1

Diagram 2

AN EMPIRICAL STUDY OF PSU STOCKS- A PERFORMANCE EVALUATION

variables, portfolio returns and market returns (CNX PSE index). This was found to negatively correlate with the market (-0.87). Sharpe ratio is calculated as 0.66 which indicates that the excess return over the return of 91-day treasury bills is 0.66 times the standard deviation of the portfolio. The performance of the portfolio gauged by this indicator is same as that of the non-banking sector but worse than that of banking sector.

Table 2

<table>
<thead>
<tr>
<th></th>
<th>Portfolio of banking sector</th>
<th>Portfolio of non-banking sector</th>
<th>Portfolio of both</th>
</tr>
</thead>
<tbody>
<tr>
<td>Beta</td>
<td>0.97</td>
<td>0.96</td>
<td>0.97</td>
</tr>
<tr>
<td>Alpha</td>
<td>0.09</td>
<td>0.02</td>
<td>0.05</td>
</tr>
<tr>
<td>S.D</td>
<td>3.42</td>
<td>2.42</td>
<td>2.43</td>
</tr>
<tr>
<td>SD annualized</td>
<td>65.34</td>
<td>46.25</td>
<td>46.43</td>
</tr>
<tr>
<td>Sharpe’s ratio</td>
<td>0.86</td>
<td>0.66</td>
<td>0.66</td>
</tr>
<tr>
<td>avg ret (daily)</td>
<td>0.17</td>
<td>0.1</td>
<td>0.1</td>
</tr>
<tr>
<td>Avg return annualized</td>
<td>62.05</td>
<td>36.5</td>
<td>36.5</td>
</tr>
<tr>
<td>Risk-free rate</td>
<td>5.88</td>
<td>5.88</td>
<td>5.88</td>
</tr>
</tbody>
</table>

C) COMPARISON OF THE BANKING AND NON-BANKING PORTFOLIOS

The study assumes that equal proportion is being invested in the stocks of the portfolio. The annualized average return of the non-banking portfolio (36.5%) is less than the average return of the banking portfolio (62.05%). The intercept of the banking portfolio was .09 whereas the intercept of the other portfolio was 0.02. This proves that when the market returns is zero the returns of the banking portfolio was better than the returns of the non-banking portfolio. While comparing portfolio risk, it was found that the banking portfolio was more risky than the non-banking portfolio. The annualized standard deviation of the nonbanking portfolio (46.25) was less than that of banking portfolio (65.34). The systematic or the business cycle risk as measured by beta is less than 1 for all the portfolios studied. This indicates that the portfolios are less volatile than the index. The correlation coefficient of the banking portfolio with the CNX PSE index was -0.72 and of non banking portfolio was -0.89. The risk-adjusted return of the banking portfolio (0.86) was better than that of non-banking portfolio (.66). It is also deduced that Sharpe ratio is in favour of banking sector portfolio. It is seen that well diversified portfolio made by investing in different sectors provided less return than banking stocks portfolio.

Conclusion

Securities taken in the sample, having higher risk as measured by standard deviation have shown higher returns also. The conclusion is thus in line with the Capital Asset Pricing Model. UCO Bank in the banking portfolio and Dredging Corporation in the non banking portfolio have highest risks and highest returns. Also, the portfolio which had higher return had higher risk. It would be beneficial for investors to invest in the leading PSU stocks based on market capitalization since the portfolio is less volatile than the benchmark index (CNX Nifty).

The study concluded that banking sector portfolio gave better returns than the total portfolio whereas the returns of the non-banking portfolio and portfolio of all the stocks gave similar returns. Returns per unit of risk also favour the banking stocks portfolio of PSU stocks. The portfolio chosen is less volatile than the index. The non risk-averse investors are hence recommended to
go in for banking sector portfolio of PSU stocks in the long run since the risk adjusted return per unit of risk is much higher than the other portfolios studied. The study also concludes that risk can be reduced by diversifying the portfolio since the standard deviation of the portfolio was lower than standard deviation of all individual stocks studied.

Limitations
The stocks taken for the study are the most active PSU stocks in terms of increase in market capitalization during the period under study but they may not be well represented in terms of different sectors. The sample size may be a limiting factor. The assumption of no taxes and transaction costs may not correctly estimate the returns Using daily returns increases the number of observations but introduces a bias due to non trading. Historical beta as a measure of past risk may not be a good estimator of future risk since a company's beta may change over time.

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To Evaluate The Impact of EDP Audit Policy of RBI on The Scheduled Co-operate Banks in Mumbai

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Abstract

The EDP audit policy is a regulation laid down by RBI for streamlining the operations of Scheduled co-operative banks. It is a set of rules which have to be followed by the banks coming under the head of scheduled co-operative banks. The present study highlights the benefit of EDP Audit Policy implementation on cooperative bank with reference to the banks performance, the customer benefit in terms of speed of operation and times saving activity and for employees the ease in operation. Also would like to bring in the concept that if training be provided to the employees will further benefit the banks to streamline the operations. This study further tried to identify whether a correlation exists between implementation of the policy and age.

For carrying out this study a population sample of employees from cooperative banks was considered. Out of total population of scheduled co-operative banks, as per rule of sampling, 10% were taken as a sample. The sample consisted of 60 employees from the selected scheduled co-operative banks. A Questionnaire was designed covering different parameters related to the benefit of this policy to the bank, individual and the customer. Further a cronbach alpha was used to find the reliability of the study. The data collected was tabulated and critically analyzed using correlation.

Keywords: EDP, IS Audit, SCB
**Introduction**

Before the era of computerization and automation, the banks performed their work manually. All transactions were carried out manually and entered into books of accounts in a traditional way. After the process of automation in banks, the transactions were done through the use of computer-based systems. Electronic data processing dominated the banking process and became the need of the hour. Electronic cards and internet banking are the necessities of today's banking scenario. Since the operations are based on EDP, the audit has to be done accordingly. After computers started dominating the banking business, there was a need for RBI to look into the auditing system which has to be in line with the policy of Automation. In 2003, RBI made it mandatory for all scheduled cooperative banks to implement the IS audit policy or EDP audit policy with the objective of streamlining the auditing process. The study deals with its implementation at a grass root level i.e. at the branches of the banks to find out the penetration of the said policy. When the policy was implemented, there was an effect of the policy on the whole process of banking and also the number of people involved in every branch of every bank. After the policy was implemented, the people working as employees and managers of the banks were affected due to implementation of the policy.

The impact of implementation of the policy was different for different employees of different banks. Impact of the policy on an employee, impact of policy on customer, and impact of training on the implementation of the policy are the parameters which form a base for the study.

These parameters can be treated as factors which affect the implementation and also have an affect on each other, which is studied in this paper.

**Literature Review**

The area of automation in banking is in a developing stage and not many people from academics try to venture into it. When RBI aimed on streamlining of banking sector with automation, there were number of steps taken in terms of different policies and norms. There are a few researchers who have tried to explore the area in terms of working papers and brief discussions on the subject. (Ravi Kumar Jain Bandamutha and K Rajesh Prabhakar 2007) through their study said that IT has become a strategic weapon, so there is a need to have comprehensive and forward looking IT strategy that addresses IT’s need to achieve business goals. (Anil Kumar Kart ham, Hayward Business Review May 2003) through a study on Technology and competitive advantage: Does technology matter? Expressed that top executives of organizations are increasingly looking at IT as a source of competitive advantage. An IT department is becoming an inalienable part of business enterprise. CIOs are part of top management. But can it actually deliver the strategic value it boasts of? It discusses the strategic importance of IT (Professional Banker K Nageswara Rao November 2004) though his study on IT in banks: the international scenario put a point that, Banks should have robust risk management processes which are technology driven.
(D Satish and Ravi Kumar Jain B, ICFAI University Press 2007) made a study on Core Banking Solutions: Powering The New Age Banking. They have concluded that Core banking solutions try to address the inflexibility and legacy problems by providing the backbone technical infrastructure. The core banking solutions are necessary for any bank in this dynamic environment. Apart from enabling the transaction processing and adding value to the customers and beating the competition, it also addresses other pressures and makes banking simple in this complex environment. (Diner Kale and Stephen Little, Electronic Journal of Knowledge Management) did a study on Knowledge Generation In Developing Countries in which they said that IT proposes a theoretical framework based on the concept of absorptive capacity to explore the process involved in dynamic learning in firms from developing countries. (Gary A Curtis, Stephen D Page, and John K Kaltenmark, Accenture) wrote on Information Technology: Thinking bigger. They concluded that, for companies in every industry, strong information technology capabilities have long been a competitive necessity. Economic conditions have made sharp reductions in IT spending a financial requirement. Reconciling these two imperatives is one of the chief strategic challenges currently facing the world's major enterprise.

**Research Gap**
The above literature reviews specify various aspects on implementation of Information technology in various domains of business. This implementation generates value for customers. A few research papers and articles also talk about implementation of information technology in banking to gain competitive advantage. After all this literature review, a big research gap can be identified in terms of study of Electronic data processing and EDP auditing.

**Objectives of Study**
1. To study the concept of EDP Audit policy in banking sector.
2. To critically evaluate the relationship between different factors involved in implementation of EDP audit policy with respect to the Bank of the employees.
3. To critically evaluate the relationship between different factors involved in implementation of EDP audit policy with respect to the age of the employees.

**Research Methodology**
The questionnaire was designed to get the data on impact of the policy on an employee, impact of policy on customer, and impact of training on the implementation of the policy which were considered as a basis for implementation. Primary data was collected through interviews with people working in different banks and are involved in implementation of EDP audit system. The data was collected and analyzed thoroughly, and interpretations based on this analysis are be given judiciously and unbiased. The validity of the data collected was also checked and the Cronbach's alpha was found to be 0.773.
Reliability Statistics

<table>
<thead>
<tr>
<th>Cronbach’s Alpha</th>
<th>Cronbach’s Alpha Basedon Standardized Items</th>
<th>N of Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>.727</td>
<td>.773</td>
<td>17</td>
</tr>
</tbody>
</table>

Data so collected was analyzed to study the effect of EDP audit policy implementation.

**Hypothesis**

**Hypothesis 1:**
Ho: There is no relationship between implementation of EDP policy and performance of banks.
Ha: There is a positive relation between implementation of EDP policy and performance of banks.

**Hypothesis 2:**
Ho: There is no relationship between implementation of EDP policy and impact on customer.
Ha: There is a positive correlation between implementation of EDP policy and impact on customer.

**Description of Sample**
Following table shows the data for Age of the Employees who were involved in the data collection. Employees who are handling the frontline of the business i.e. people working at the teller counter or service counters were taken as respondents and requested to fill up the questionnaire. Following table shows study of their age.

**Age of Employees**

<table>
<thead>
<tr>
<th>Coding</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-30yrs</td>
<td>11</td>
<td>18.3</td>
<td>18.3</td>
<td>18.3</td>
</tr>
<tr>
<td>30-40yrs</td>
<td>19</td>
<td>31.7</td>
<td>31.7</td>
<td>50.0</td>
</tr>
<tr>
<td>40-50yrs</td>
<td>22</td>
<td>36.7</td>
<td>36.7</td>
<td>86.7</td>
</tr>
<tr>
<td>&gt;50yrs</td>
<td>8</td>
<td>13.3</td>
<td>13.3</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

**Table 1: Age of Employees**
Two employees from each branch were requested to fill the questionnaire. The following pie chart shows distribution of employees in different age groups. Out of the total respondents, 18.3% employees were between 20yr to 30 yrs of their age. 31.7% were between 30yr to 40 yrs of their age, 36.7% were between 40 yrs to 50 yrs of their age and rest of them i.e. 13.3 % were above the age of 50yrs. The coding is as presented in the above table. The banks are categorized in three different categories.
- With low level of computerization
- With moderate level of computerization
- With complete computerization

**Banks**

<table>
<thead>
<tr>
<th>Coding</th>
<th>Frequency</th>
<th>Percent</th>
<th>Valid Percent</th>
<th>Cumulative Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>20</td>
<td>33.3</td>
<td>33.3</td>
<td>33.3</td>
</tr>
<tr>
<td>2</td>
<td>20</td>
<td>33.3</td>
<td>33.3</td>
<td>66.7</td>
</tr>
<tr>
<td>3</td>
<td>20</td>
<td>33.3</td>
<td>33.3</td>
<td>100.0</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
<td>100.0</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

**Table 2: Banks of Employees**
The pie chart in annexure shows the distribution of banks of the employees.

**Data Collection and Analysis**
Respondents were asked to fill the questionnaires. Data was collected and tabulated. Correlation and regression analysis was done to generate following result.
Correlations

<table>
<thead>
<tr>
<th>Bank</th>
<th>Impact on self</th>
<th>Impact on customer</th>
<th>Training of policy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
<td>-.222</td>
<td>-.111</td>
</tr>
<tr>
<td>N</td>
<td>60</td>
<td>60</td>
<td>60</td>
</tr>
</tbody>
</table>

| Impact on self Pearson Correlation | 1 | .088 | .367** |
| N                                  | 60 | 60   | 60     |

| Impact on customer Pearson Correlation | 1 | .004 | .097 |
| N                                     | 60 | 60   | 60    |

| Training of policy Pearson Correlation | 1 | .019 | .887 |
| N                                      | 60 | 60   | 60    |

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

Table 4: Correlation between age and factors of impact of implementation.
The table shows that there is a correlation between age and the scale developed to find out impact of policy. There is a positive correlation between age and training of EDP audit policy. Also, there is positive correlation between impact of policy on employee and impact of policy on customer. There is positive correlation between Training given to employees and impact on the customers. The age and the impact on employees are negatively correlated to each other. Also, age and training given to employee are positively correlated with each other. So we reject the null hypothesis.

Conclusion
The study was conducted to find the impact of EDP audit policy on different factors like impact on employees of different banks, impact on customer. Also the study is aimed at finding the correlation between these factors. There is a correlation between different factors involved in implementation of EDP audit policy with reference to their Bank and Age in Mumbai. The study proves that the impact of EDP audit policy on the customer is different for different banks. The impact changes according to the bank. The study also proves that, more the impact on employees, more will be impact on customers. It means that if the impact of policy is more on employees it will ultimately generate more positive results for the customers.
To Evaluate The Impact of EDP Audit Policy of RBI on The Scheduled Co-Operate Banks in Mumbai

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- Business research methods by William Zikmund.
- SPSS 13.0 for Windows: Analysis without anguish by Sheridan J Coakes, Lyndall Steed, Peta Dzidic

Annexure

<table>
<thead>
<tr>
<th>Age of employees</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>20-30</td>
<td>8%</td>
</tr>
<tr>
<td>30-40</td>
<td>9%</td>
</tr>
<tr>
<td>40-50</td>
<td>32%</td>
</tr>
<tr>
<td>More than 50</td>
<td>37%</td>
</tr>
</tbody>
</table>

Figure 1: Age of Employees

<table>
<thead>
<tr>
<th>Bank</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category 1</td>
<td>33%</td>
</tr>
<tr>
<td>Category 2</td>
<td>34%</td>
</tr>
<tr>
<td>Category 3</td>
<td>35%</td>
</tr>
</tbody>
</table>

Figure 2: Bank of Employees
FDI Stirring The Indian Economy-An Empirical Study in Post Liberalization Era

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Abstract

Foreign Direct Investment is like an oxygen cylinder for any business organization. It is a boon for the constant and prosperous growth of any economy. LPG concept gave the positive turn to the economy of any country due to the free flow of cash. It increases the capacity of the business organization. Major effects in the Indian economy can be judged by the macro-economic factors prevailing in the country. Thus the prosperity and development of the nation depends largely on the flow of foreign direct investment. Present study is an endeavor to explore the impact of foreign direct investment to bring the India on the apex of the developmental path. To explore the objective macroeconomic factors were considered to depict the Indian economy. The regression and co-relation were applied to test the hypothesis and implicate the results.

Key Words: FDI; Macroeconomic Factor; Regression; Economy
Introduction

In an interdependent, open and competitive world, with a cool breeze of 'vasudev kutumbkam' no country can succeed in isolation or without remaining in touch with rapidly changing pattern of financial flows across countries. Capital and investment are the essential pillars of economic development of every country. Savings, capital and investment along with human resources are the essential hub of development. But the short supplies of domestic capital limit the growth of developing countries (Bhanagade and Shah, 2011). With Liberalization, Privatization and Globalization (LPG) the world financial markets have been continuously, and dramatically more open since 1990's. In a global economy, characterized by competitive environment, the role of foreign capital in the economic development of a country cannot be ignored. The integration of developing countries with the global economy increased sharply in the 1990s with changing in their economic policies and lowering of barriers to trade and investment.

FDI brings capital with foreign technology, skills, modern managerial techniques, knowhow and organizational structures. Foreign direct investment (FDI) plays an astonishing and emergent role in global business. It can provide a firm with fresh markets and marketing channels, cheaper production facilities, access to new technology, products, skills and financing (Alfaro, 2000). For a host country or the foreign firm which receives the investment, it can provide a source of new guarantees or the willingness of governments to bailout the banking system. It is the first to run for the existence in times of trouble. It is furthermore described as a source of economic development, modernization, and employment generation, whereby the overall benefits triggers technology spillovers, assists human capital formation, contributes to international trade integration and particularly exports, helps create a more competitive business environment, enhances enterprise development, increases total factor productivity and, more generally, improves the efficiency of resource used (OECD, 2002).

FDI play the potential role in accelerating growth and economic transformation of the host country. Developing countries are strongly interested in attracting it. They are taking necessary steps to perk up the principal determinants influencing the location choices of foreign direct investors. The growth of FDI inflows to India has been fairly satisfactory. The integration of developing countries with the global economy increased sharply in the 1990s with changing in their economic policies and lowering of barriers to trade and investment.

According to global survey conducted by Ernst and Young in June, 2008, India has been rated as the fourth most attractive FDI destination in the world. Availability of educated and skilled work force is the most important success factor for attracting FDI into India followed by market size. Large number of MNC's makes use Indian skilled manpower to service their global operations (Bhanagade and Shah, 2011).

FDI is a vital need for any economy to synchronize its domestic investment. During the last decade, major developing countries, including India, began to integrate much more with the global economy. With the greater participation of Indian economy, with the rest of the world, India has experienced large
inflows of investment from abroad which has transformed the local economy into an export led growth wonder (Mahajan and Nanda, 2007). The international capital flow such as direct and portfolio flows has huge contribution to influence the economic behavior of the countries positively. Countries with well developed financial markets are in the best position to reap the benefits of capital flows and minimize the risks (Sethi and Patnaik, 2005). FDI is usually preferred over other forms of external finance because they are non-debt creating, non-volatile and their returns depend on the performance of the projects financed by the investors (Singh, 2005).

Thus, the present study is a step to explore the impact of FDI on Indian economy in the post liberalization era, whereby the stimulants of growth of economy considered are: Production, inflation, Gross Domestic Product (GDP), Prime Lending Rate (PLR), Balance of Payments (BOP), Gold Rate, Exchange Rate, and Growth Rate.

**Literature Review**

**Unfavourable**

In the earlier stage, few studies had shown that FDI has a negative impact on the growth of the developing countries (Singer, 1950; Griffin, 1970; Weisskof, 1972). The main argument of these studies was that FDI flows to Less Developing Countries (LDCs) were mainly directed towards the primary sector, which basically promoted the less market value of this sector. Since these primary products were exported to the developed countries and were processed for import, it received a lower price for its primary product. This could create a base for the negative impact of FDI flows in the economy.

The study for the Indian economy does not support the unidirectional causality from FDI to Index of Industrial Production (IIP), where IIP is taken as the proxy for GDP. In fact, this study used the monthly data for IIP and GDP, which may include seasonal component in its variation and hence it is required to de-seasonalise the data (Dua and Rashid, 1998). In the comparative study of FDI and economic growth for Indian and Bangladesh economy stressed that though the impact of FDI on growth is more in case of Indian economy yet it is not satisfactory (Alam, 2000). FDI generates positive spillovers for host countries are ambiguous at both the micro and macro levels. Evidence proving that, FDI generates positive spillovers for host countries was weak (Hanson, 2001). In a review of micro data on spillovers from foreign-owned to domestically owned firms, it was concluded that, the effects were mostly negative (Gorg and Greenwood, 2002). On surveying the macro empirical research it was found that, there was no consistent relation between the size of inward FDI stocks or flows relative to GDP and growth. Further found that, there was need for more consideration of the different circumstances that obstruct or promote spillovers (Lipsey, 2002).

On using multiple regression technique to evaluate the role of FDI on the export performance in the Indian economy, it was concluded that FDI does not have a statistically significant role in the export promotion in Indian Economy (Sharma, 2000). This result was also confirmed by
another study which argued that, the foreign firms were more interested in the large Indian market rather than aiming for the global market (Pailwar, 2001). By using a vector error correction model (V ECM), to find the short run dynamics of FDI and growth, explored that, the GDP in India is not Granger caused by FDI. The trade liberalization policy of the Indian government had some positive short run impact on the FDI flow (Chakraborty and Basu, 2002). It was found that, FDI in India is not able to enhance the growth of the economy. Though there is a common consensus among all the studies in the Indian context that FDI is not growth stimulant rather it is growth resultant (Sahoo and Mathiyazhagan, 2003).

Favourable
On reviewing the micro literature it was reviewed that, there were evidence of positive effects of FDI (Lipsey, 2002). In a hypothesis test, it was found that, export promoting FDI in countries like India confer greater benefit than FDI in other sectors. Production function approach was used in which FDI was treated as an independent factor input in addition to domestic capital and labour. FDI was a source of human capital accumulation and development of new technology for developing countries (Balasubramanyam et. al., 1996).

FDI could convey great advantages to host countries, and such gains might differ across primary, manufacturing, and services sectors. In the primary sector, the scope for linkages between foreign affiliates and local suppliers was often limited. The manufacturing sector has a broad variation of linkage intensive activities. While in the tertiary sector the scope for dividing production into discrete stages and subcontracting out large parts to independent domestic firms was also limited (UNCTAD World Investment Report, 2001). Often-mentioned benefits, such as transfers of technology and management know-how, introduction of new processes and employee training tend to relate to the manufacturing sector rather than the agriculture or mining sectors (Findlay, 1978; and Wang and Bloomstrom, 1992). It was found that, in the absence of linkages, foreign investments could have limited effect in spurring growth in an economy (Hirschman, 1958). The theoretical work on linkages showed that multinationals intensive use of intermediate goods enhanced production efficiency in host economies. It was emphasized that not all sectors have the same potential to absorb foreign technology or to create linkages with the rest of the economy (Hirschman, 1958).

The research made a preliminary attempt to test whether international capital flows has the positive impact on financial market and economic growth with the help of macroeconomic variables in the economy and found that, the financial sector reforms to revive the capital markets help to attract the capital flows due to comparative returns. The international capital flow has positive contribution for the economic growth of developing countries explicitly. It is true that many developing economies with a high degree of financial integration have also experienced higher growth rates (Prasad et. al., 2003).

Capital flows can contribute to growth rate of the host economy by augmenting the capital
as well as with infusion of technology, given the high growth rates as also lead to a better investment climate by enhancing more capital flows in the country. Therefore, the capital – growth relationship is a subject of causality with a possibility of two-way relationship (Duttaray and Mukhopadhy, 2003). Foreign capital inflows have favourable effect on the economic efficiency and growth towards the developing countries (Rodan, 1961; Chenery and Strout, 1966). It has been explained that FDI could have a favourable short-term effect on growth as it expands the economic activity. Whereas, in the long run it reduces the growth rate due to dependency, particularly due to de-capitalization (Bornschier, 1980). FDI is an important vehicle for the transfer of technology and knowledge and it demonstrates that it can have a long run effect on growth by generating increasing return in production via positive externalities and productive spill-overs. Thus, FDI can lead to a higher growth by incorporating new inputs and techniques (Feenstra and Markusen, 1994).

A recent study in the U.S. supports a unidirectional causality from GDP to FDI and not the reverse causation. This may be due to the fact that for a developed country, FDI follows GDP, as GDP is an indicator for market size (Kasibhatla and Sawhney, 1996). The external effect of FDI on export showed with example of Bangladesh, where the entry of a single Korean Multinational in garment exports led to the establishment of a number of domestic export firms, creating the country’s largest export industry (Aitken, et al., 1997). The recent study, using time series data for the period of 1979-93, estimated the regression between GNP, domestic saving in one period lag, and FDI in one period lag (all in logarithmic value). The results of the study reflected that there is a positive relationship between FDI and GNP and it is significant at 5 per cent level for the Chinese economy (Chen; Chang and Zhang, 1995).

It also supported by other study which attributed the spectacular growth rate of Chinese economy during 1952 to 1994 to the productivity gains largely due to market oriented reforms, especially the expansion of the non-state sector, as well as China’s open-door policy, which brought about a dramatic expansion in foreign trade and FDI (Sahoo et. al., 2002; Hu and Khan, 1997). Further, the relationship between FDI and growth was examined empirically in some MENA countries, using panel data. The study found that FDI leads to economic growth; the effect however varies across regions and over time (Bashir, 1999).

The researcher found that, a little support for FDI having an exogenous positive effect on economic growth. These results are robust to the inclusion of other growth determinants such as human capital measures, domestic financial development, and institutional quality along with the use of lagged values of FDI (Borensztein, and Lee, 1998; Carkovic and Levine, 2002). Foreign Direct Investment (FDI) inflow into the core sectors is assumed to play a vital role as a source of capital, management, and technology in countries of transition economies. It implies that FDI can have positive effects on a host economy’s development effort (Caves, 1974; Kokko, 1994; Markusen, 1995; and Carves, 1996).
FDI Stirring The Indian Economy-An Empirical Study in Post Liberalization Era

Foreign Direct Investment (FDI) is commonly known as a cross-border investment which is made by an investor with a view to establishing a lasting financial interest in an industry/enterprise and trying to exert a degree of influence on the operation of the enterpriser and where the foreign investor holds an interest of at least 10% in equity capital. FDI is often mentioned as a lead driver for economic growth and thought to bring certain benefits to national economies. It can contribute to Gross Domestic Product (GDP), Gross Fixed Capital Formation (total investment in a host economy) and balance of payments (Dutt, 1997). The credible pledge to financial reforms may be helpful in drawing FDI inflows even when the country has not yet fully developed the domestic financial sector. Not only does financial reform matter, it is the most important reform a country can pursue in order to influence the decisions of foreign investors (Nauro et al., 2008).

Objectives
• To study the impact of FDI over Indian economy.
• To study the growth pattern among the macro-economic factors.

Research Methodology
Hypothesis
• Ho=1 There is no impact of FDI over Production.
• Ho=2 There is no impact of FDI over Inflation.
• Ho=3 There is no impact of FDI over GDP.
• Ho=4 There is no impact of FDI over PLR.
• Ho=5 There is no impact of FDI over BOP.
• Ho=6 There is no impact of FDI over Gold Rate.
• Ho=7 There is no impact of FDI over Exchange Rate.
• Ho=8 There is no impact of FDI over Growth Rate.
• Ho=9 There exists no co-relation among the macro economic factors.

Scope of The Study
• The measure of economic growth is considered on eight macroeconomic variables.
• The macro economic variables may be influenced by the contemporary economic, political, social and other conditions.
• The study is based for the period of 10 years i.e., from 2001-2011. All the results should be seen in those prevailing situations.

Data

Period of The Study
Post liberalization period from 2001 to 2011 was considered the period of study.

Sample
The study undertook eight macro economic factors (Production; Inflation; GDP; PLR; BOP; Gold Rate; Exchange Rate; Growth Rate) as predictor of Indian economy.

Statistical Tool
The study used multiple regression and co-relation and for the analysis through SPSS17.
Analysis And Interpretation

The regression model has yielded an R Square value of 0.047 which states that 4.7% of the variation in total Industrial Production Rate is caused by the regressor (FDI) involved in the model. The corresponding F statistics is 0.496 and the corresponding P value is 0.497. Hence it is not significant and may be understood that the model is not a good fit for the data. The 't' Statistic corresponding to the regression coefficient is 1.53 and the corresponding P value is 0.157, which implies that the regression coefficient is not significant and so FDI is a variable which is an inverse determinant of Industrial Production Rate. The corresponding regression coefficient is equal to 38416.9 which means one unit change in FDI would increase more than many times unit increase in Exchange Rate. Thus the FDI has an inverse relation with Industrial Production Rate and the null hypothesis held accepted.

The regression model has yielded an R Square value of 0.559 which implies that 56% of the variation in total inflation is caused by the regressor (FDI) involved in the model. The corresponding F statistics is 12.681 and the corresponding P value is 0.005. Hence it is significant and implies that the model is a good fit for the data. The 't' statistic corresponding to the regression coefficient is 5.186 and the corresponding P value is 0.000, which implies that the regression coefficient is highly significant and so FDI is a variable which is a positive determinant of Inflation. The corresponding regression coefficient is equal to 4.410 which means one unit change in FDI would increase more than 4 times unit increase in inflation. Thus it can be concluded that FDI has impact on inflation and the null hypothesis held rejected.

The regression model has yielded an R Square value of 0.397 which indicates that 40% of the variation in total GDP is caused by the regressor (FDI) involved in the model. The corresponding F statistics is 6.576 and the corresponding P value is 0.028. Hence it is significant and implies that the model is a good fit for the data. The 't' statistic corresponding to the regression coefficient is 5.806 and the corresponding P value is 0.000, which implies that the regression coefficient is highly significant and so FDI is a variable which is a positive determinant of GDP. The corresponding regression coefficient is equal to 28035.445 which means one unit change in FDI would increase more than many times unit increase in GDP. Thus FDI has a positive impact on GDP and the null hypothesis held rejected.

The regression model has capitulated an R Square value of .040 which means that 4% of the variation in total PLR is caused by the regressor (FDI) involved in the model. The corresponding F statistics is .419 and the corresponding P value is .532. Hence it is no significant and infers that the model is not a good fit for the data. The 't' statistic corresponding to the regression coefficient is 6.018 and the corresponding P value is 0.000, which implies that the regression coefficient is highly significant and so FDI is a variable which is a positive determinant of PLR. The corresponding regression coefficient is equal to 5.829 which means one unit change in FDI would increase more than 5 times unit increase in PLR. Thus the FDI has a negative impact on PLR and the null hypothesis held rejected.

Therefore, it can be concluded that FDI has a significant impact on various economic indicators such as Industrial Production Rate, Inflation, and GDP, and by affecting these variables, FDI plays a crucial role in the economic development of a country.
accepted.
The regression model has give-up an R Square value of .118 which conveys that 12% of the variation in total BOP is caused by the regressor (FDI) involved in the model. The corresponding F statistics is 1.340 and the corresponding P value is .274. Hence it is not significant and implies that the model is not a good fit for the data. The 't' statistic corresponding to the regression coefficient is 1.644 and the corresponding P value is 1.131, which implies that the regression coefficient is also not significant and so FDI is a variable which is a inverse determinant of BOP. The corresponding regression coefficient is equal to 34077.865 which mean one unit change in FDI would increase more than many times unit increase in BOP. Thus the FDI has inverse impact on BOP and the null hypothesis held accepted.
The regression model has yielded an R Square value of .446 which implies that 45% of the variation in total Gold Rate is caused by the regressor (FDI) involved in the model. The corresponding F statistics is 8.040 and the corresponding P value is .018. Hence it is significant and implies that the model is a good fit for the data. The 't' statistic corresponding to the regression coefficient is 2.225 and the corresponding P value is .050, which means that the regression coefficient is highly significant and so FDI is a variable which is a positive determinant of Gold Rate. The corresponding regression coefficient is equal to 334.860 which mean one unit change in FDI would increase more than 6 times unit increase in Gold Rate. Thus FDI has positive impact on Gold Rate and the null hypothesis held rejected.
The regression model has yielded an R Square value of .080 which states that 8% of the variation in total Exchange Rate is caused by the regressor (FDI) involved in the model. The corresponding F statistics is 0.875 and the corresponding P value is .372. Hence it is not significant and may be understood that the model is not a good fit for the data. The 't' Statistic corresponding to the regression coefficient is 47.275 and the corresponding P value is 0.000, which implies that the regression coefficient is not significant and so FDI is a variable which is a inverse determinant of Exchange Rate. The corresponding regression coefficient is equal to 46.300 which mean one unit change in FDI would increase more than many times unit increase in Exchange Rate. Thus the FDI has inverse relation with exchange rate and the null hypothesis held accepted.
The regression model has given an R Square value of .254 which implies that 25% of the variation in total Growth Rate is caused by the regressor (FDI) involved in the model. The corresponding F statistics is 3.409 and the corresponding P value is .095. Hence it is not significant and implies that the model is not a good fit for the data. The 't' Statistic corresponding to the regression coefficient is 7.402 and the corresponding P value is 0.000, which implies that the regression coefficient is highly significant and so FDI is a variable which is a positive determinant of Inflation. The corresponding regression coefficient is equal to 6.159 which mean one unit change in FDI would increase more than 6 times unit increase in Growth Rate. Thus FDI has negative impact on Growth Rate and the null hypothesis held rejected.
The co-relational analysis depicts the relationship between macro-economic variables with respect to FDI. It was found that, FDI is significant and highly co-related with Inflation, moderately co-related with GDP and Gold Rate. It is not significant, but positively co-related with BOP, Industrial Production Rate and Growth Rate. It is not significant and negatively co-related in case of Exchange Rate and PLR.

### Table-2
Co-relation Analysis

<table>
<thead>
<tr>
<th></th>
<th>FDI</th>
<th>Inflation</th>
<th>GDP</th>
<th>PLR</th>
<th>BOP</th>
<th>Exchange Rate</th>
<th>Growth Rate</th>
<th>Industrial Production</th>
</tr>
</thead>
<tbody>
<tr>
<td>FDI</td>
<td>.748</td>
<td>.630</td>
<td>.200</td>
<td>.344</td>
<td>.668</td>
<td>-.284</td>
<td>.304</td>
<td>.217</td>
</tr>
<tr>
<td>Pearson Correlation</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Discussion
On the basis of above analysis it was explored that FDI has a positive impact on Inflation, GDP, Gold Rates while, on other hand it has negative impact on PLR, BOP, Exchange Rate and Growth Rate. Thus the impact of FDI on Indian economy is mainly depicted by GDP, Gold Rate and Inflation. Low GDP keeps the savings and investment rates low, which in turn, limit growth (Bhanagade and Shah, 2011).

It has examined that absorptive capacity of recipient country, which is measured by stock of human capital required for technological progress; it takes place through 'capital is deepening' associated with new capital goods brought into an economy by FDI. We think that the fructification of growth effect of FDI
requires adequate infrastructure as a pre-requisite. For example, if there are frequent power cuts, it will reduce growth effect. (Borensztin et al. 1998).

The co-relational analysis also supports the results of Regression analysis that FDI has more impact on Gold rate, GDP and Inflation. Industrial Production is an economic report that measures changes in output for the industrial sector of the economy. The industrial sector includes manufacturing, mining, and utilities. Although these sectors contribute only a small portion of GDP (Gross Domestic Product), they are highly sensitive to interest rates and consumer demand. This makes Industrial Production an important tool for forecasting future GDP and economic performance. Industrial Production figures are also used by central banks to measure inflation, as high levels of industrial production can lead to uncontrolled levels of consumption and rapid inflation (Wikipedia, 2012).

Policy Implications
- Case wise diagnostic through residual value can forecast the future demand of the independent factor FDI in respect of Industrial Production Rate. In 2011 the residual value was 85834. While it was maximum in the year 2009 among the study period which was 10852, thus, the difference is 74982. In order to maintain the maximum level, expected FDI increase for 2012 should be Rs. 15565.5 crores.
- Case wise diagnostic through residual value can forecast the future demand of the independent factor FDI in respect of Inflation. In 2011 the residual value was 1.928. While it was maximum in the year 2010 among the study period which was 3.373 thus the difference is 1.45. In order to maintain the maximum level, expected FDI increase for 2012 should be Rs. 38053.3 crores.
- Further analysis as per case wise diagnostic in case of GDP, residual value can forecast the future demand of the independent factor FDI. In 2011 the residual value was 284038.967. It is the maximum in the year 2011 among the study period. In order to maintain the maximum level FDI for 2012 it should be same.
- Case wise diagnostic through residual value of PLR can forecast the future demand of the independent factor FDI. In 2011 the residual value was -3.029. While it was maximum in the year 2007 among the study period which was 3.124 thus the difference is 6.153. In order to maintain the maximum level of Expected FDI for 2012 should be increased by Rs.194284.3 crores.
- Case wise diagnostic through residual value of BOP can forecast the future demand of the independent factor FDI. In 2011 the residual value was -28899.556. While it was maximum in the year 2008 among the study period which was 68500.534 thus the difference is 97400.09. In order to maintain the maximum level Expected FDI for 2012 should be Rs.174927.8 crores.
- Case wise diagnostic of Gold Rate through residual value can forecast the future demand of the independent factor FDI. In 2011 the residual value was 861.598. It was maximum in the same year 2011 among the study period. In order to maintain the maximum level Expected FDI for 2012 should be same.
- Case wise diagnostic of Exchange Rate, through residual value can forecast the future demand of the independent factor FDI.
2011 the residual value was 1.085; while it was maximum in the year 2009 among the study period, of the value 3.678 thus the difference is 2.593 In order to maintain the maximum level Expected FDI for 2012 should be Rs.86800 crores.

- Case wise diagnostic of Growth Rate, through residual value can forecast the future demand of the independent factor FDI. In 2011 the residual value was 0.691. While it was maximum in the year 2010 among the study period, with a value of 2.255, thus, the difference is 1.564. In order to maintain the maximum level, increase in expected FDI for 2012 should be Rs. 61394.8 crores.

- Thus as per the analysis of Inflation, GDP and Gold Rate, the FDI requirement for the coming years should be increased.

- As per contemporary situation the mass should be kept aware about the direct and indirect advantages of FDI to the nation, economy and society as a whole. Comparative analysis was made to assess the significance of foreign direct investment to the growth and development of both China and India, from the period, following the introduction of economic reform programmes, to the last few years. It was suggested that, foreign direct investment (FDI) has had a significant positive bearing on the Chinese economy and a considerably more moderate effect on that of India (Mahajan and Nanda, 2007).

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