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CONCEPTUAL FRAMEWORK
AND PROFILE OF INFORMATION TECHNOLOGY INDUSTRY
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3.1 INTRODUCTION

In today’s rapidly changing corporate environment, organizations from all around the world want to use the maximum potential of their human resources to stay ahead of the fierce competition and survive in the middle of the quest. The Employees are the key driving force of any organization who gives endless effort to put a company’s decision into action with a view to achieve the goals of the organization. Well motivated work force feels that organizations value them and they play an essential role within the organization. Employees, therefore, are regarded as an unsurpassed vital resource of an organization, and the employees’ motivation has become an indispensable part of the human resource strategy of an organization. Further, the employers should understand the factors that motivate their employees with respect to the role they perform and their needs. This chapter gives a brief description on the concept of motivation, its types, and the factors of employee motivation and finally discusses on the profile of Information Technology Industry.

3.2 MOTIVATION

Employee motivation is a widely practiced concept today across all corporate sectors irrespective of their size of being big or small. Motivation is one of the important factors that affects human behavior and performance. Numerous definitions of motivation have been extended which mostly stick to the idea of
promoting individual’s willingness to invest more efforts to achieve specific objectives. The term motivation has been derived from the Latin word “movere”, which means “to move”. Motivation is the stimulation of any emotion or desire operating upon one’s will and prompting or driving it to action. Motivation can be defined as a set of independent and dependent relationships that explains the direction, amplitude and persistence of an individual’s behavior holding constant effects of aptitude, skills, understanding of a task and the constraints operating in the work environment (Campbell & Pritchard, 1976). Lillis observes motivation as: “It is the stimulation of any emotion or desire operating upon one’s will and prompting or driving it to action”. “Motivation is the concept we use when we describe the forces acting on or within an organism to initiate and direct behaviour. We also use the concept of motivation to explain the difference in the intensity of the behaviour. More intense behaviours are considered to be the result of a higher level of motivation. Additionally, we often use the concept, motivation to indicate the direction of behaviour” (Peteri, 1991). Baron (1983,) defines motivation as “a set of processes concerned with the force that energizes behaviour and directs it towards attaining some goal.” Motivation is to inspire people to work individually or in group in the ways as such as to produce best results. It is the willingness to exert a high level of effort towards organizational goals, conditioned by the efforts and ability to satisfy some individual needs (Kreitner, 1995). It was once believed that motivation had to be injected from outside, but it is now understood that everyone is motivated by several differing forces (Buford et al., 1995). Motivation can neither be seen, nor measured directly (Ambrose and Kulik, 1999). Daft and Marcic (2004) says that motivation refers to the forces either within or external to a person that arouse enthusiasm and persistence to pursue a certain course of action. Motivation
increases the job involvement of employees by making the work more meaningful and interesting, and improves their subsequent job performance. It is an inner drive or an external inducement to behave in some particular way, typically one that will lead to rewards (Oluseyi and Ayo, 2009).

3.3 SELF-DETERMINATION THEORY

Self-Determination Theory (SDT) is a theory of motivation. It is concerned with supporting our natural or intrinsic tendencies to behave in effective and healthy ways. The theory was initially developed by Edward L. Deci and Richard M. Ryan, and has been elaborated and refined by scholars from many countries. Self-determination theory (SDT) is a macro theory of human motivation and personality, concerning people’s inherent growth tendencies and their innate psychological needs. It is concerned with the motivation behind the choices that people make without any external influence and interference. SDT focusses on the degree to which an individual’s behavior is self-motivated and self-determined. In 1970s, research on SDT got evolved from studies comparing the intrinsic and extrinsic motives, and from a growing understanding of the dominant role where intrinsic motivation played in an individual’s behavior. Research applying SDT to different areas in social psychology has increased considerably since the 2000s.

3.4 TYPES OF MOTIVATION

Motivation at work can take place in two ways. First, people can motivate themselves by seeking, finding and carrying out work or being given work that satisfies their needs or at least leads them to expect that their goals will be achieved. Secondly, people can be motivated by employers through such methods as pay, facilities, appraisal, etc. Self-Determination Theory claims to give a different
approach to motivation, considering what motivates a person at any given time as opposed to seeing motivation as a unitary concept. SDT makes distinctions between different types of motivation and the consequences of them.

3.4.1 Intrinsic Motivation - the self-generated factors that influence people to behave in a particular way or to move in a particular direction. Intrinsic motivation is defined as doing of an activity for its inherent satisfaction rather than for some separable consequence. It reflects the internal desire of a person to satisfy the inner needs. This desire arises from the emotions. These factors include responsibility, autonomy, scope to use and develop skills and ability, interesting and challenging work and opportunities for advancement.

3.4.2 Extrinsic Motivation - what is done to or for people to motivate them? It is concerned with the external factors which employees enjoy. Extrinsic motivation comes from outside the performer. This includes increased pay, fringe benefits, retirement plan, health schemes, holidays and vacations etc. By and large these motivators are associated with financial rewards.

Extrinsic motivators can have an immediate and powerful effect, but it will not necessarily last long. The intrinsic motivators, who is concerned with the ‘quality of work life’, are likely to have deeper and longer-term effect because they are inherent in individual and not imposed from outside. Some of these factors are motivating than others. The researcher tries to find out which of them is the best motivator.
3.5 FACTORS OF MOTIVATION

Human beings are motivated by satisfying their different kinds of needs. Needs depend on many factors and vary from person to person to the situation, organization, nature of work, risk, educational background of employees, experience and skills, position of work, etc. Employees, therefore, have their own motivational factors to motivate them to perform their best. Based on the intrinsic and extrinsic factors and several theories of motivation, in the present study the factors of employee motivation are broadly categorized as:

- Monetary Motivational Factors
- Non-Monetary Motivational Factors.

According to Armstrong (2007), money is a motivator because it satisfies a lot of needs. It is a factor which is indispensable for life and is needed to satisfy basic needs of survival and security. Money is still the most crucial motivating factor for employees that makes him perform well in the company and long-term incentives are less effective than short-term, performance based incentives (Agarwal, 2010). According to Nilay Yauvuz (2004), the non-monetary factors have the potential to satisfy the employee’s needs and motivate them without necessitating significant amount of use of financial sources. The use of non-monetary factors are effective in motivating the employees as an alternative or in addition to the inadequate monetary benefits. Both monetary and non-monetary factors are the morale boosters for the workforce and the companies should adopt diverse benefits to motivate and satisfy their employees (Kongal Ramprasad, 2013).
3.5.1 Monetary Motivational Factors

The Monetary Motivational factors are the extrinsic factors to work and are offered in terms of money. Such factors provide more cash or purchasing power to the employees. The monetary factors are the mean to recruit, attract and retain the employees. These factors serve as the most important factor as money satisfies the basic need of survival and security. In the present study the monetary motivational factors includes:

- Emoluments
- Fringe Benefits
- Rewards

3.5.1.1 Emoluments

Emoluments refer to the compensation received by the employee in virtue of holding an office or having employment. It is the compensation for the service rendered in the organization. It is the monetary compensation structure that is divided into various components to address the needs and aspirations of the employees at different hierarchical levels. The emoluments includes a) Basic salary and mandatory allowances, b) Shot-term incentives like bonus, commission, overtime pay and c) Long term incentives like retirement benefits, provident funds and gratuity. The emoluments offered should be adequate, equitable, balanced, secured. It is influenced by external factors like labor market, economic condition, government regulation, and internal factors like age, size and labor budget of the organization. The emolument as all forms of payments given to employees arises from their employment (Dessle, 2005).
3.5.1.2 Fringe Benefits

Fringe Benefits are the employee benefits that focus on maintaining and improving the quality of life for employees. It provides a level of protection and financial security for employees and for their family members. Organizations use fringe compensation programs to attract, retain and motivate qualified and competent employees. According to the standard point of accounts, the fringe benefits can be classified as - a) Payment for time on job embracing overtime payment, b) Payment for time cost on job like paid holiday, vacation, sick leave and c) Payment for varied benefits like insurance, subsidised lunch. These employee benefits are found to be the integral part of a total compensation system. Employee benefits like child care, retirement plans, paid holiday etc., had proved to improve the job satisfaction of the employees. The employers should provide improved fringe benefits along with the mandatory benefits to increase the productivity level of the employees (Laikun Kong, 2008).

3.5.1.3 Rewards

The Reward can be defined as “an external agent administered when a desired action or task is performed, that has controlling and informational properties”. The Rewards can be verbal, physical or tangible. Organizations usually use increased pay, promotion, bonus and other types of reward to encourage staff to increase productivity. An appropriate designed reward system would create a performance culture in the organization. Studies have proved that the reward system of the company helps in steering and motivating the employees towards attainment of the mission of the organization. Researchers like Cameron and Pierce (1994) and Eisenberger and Cameron (1996), says that tangible rewards like money tend to
suppress intrinsic motivation. Verbal rewards, like praise, tend to have a positive reinforcing effect on both the task and attitudes. The reward system in the workplace can be used as a powerful tool by employers to create a motivational environment. These rewards will help them work at their optimal levels to accomplish the organizational objectives.

3.5.2 Non-Monetary Motivational Factors

The Non-Monetary motivational factors are the tangible and job related factors that are used in the organization to motivate the employees without direct payment of money. Theses factors are intrinsic to work. These non-monetary factors have the potential to satisfy the employees’ needs and motivate them without necessitating significant amount of the use of financial sources. At a higher level position, the employees give more importance to the non-monetary factors than monetary factors. These factors create an opportunity to provide immediate recognition to the employee who performs above the expectation that contributes to the organizational objective. Based on the National and International literature reviews, the non-monetary factors are identified as follows:

- Work Environment
- Performance Appraisal
- Training and Development
- Job Rotation
- Career Development
- Employee Participation
- Promotion Policies
- Job Autonomy
3.5.2.1 Work Environment

Work Environment refers to the work organisation, which enables the employees at all levels to actively participate in shaping the organization’s environment, methods and outcome. The work environment exercises a significant influence on the productivity of the employees. Further, the work environment contains job with sufficient variety of tasks to provide challenges and to utilize the talents of the employee. A working environment with highly supportive supervisor, good interpersonal relationship and better grievance handling method motivates the employees to give high productivity (Mohamed Javed Kalburgi, 2010). A Work environment which includes factors like getting on well with their colleagues and experiencing a positive and supporting attitude from their superiors had influenced the motivation level of the employees (Gulten Yurtseven and Ali Halici, 2012).

3.5.2.2 Performance Appraisal

Performance appraisal can be defined as a process typically delivered annually by the superior to a subordinate, designed to help employees to understand their roles, objectives, expectations and performance success. It is a systematic evaluation of personality and performance of employees by his superior. From the point of employees, the appraisal provides feedback which is essential for discussing the strength and weakness as well an improving their performance. Currently, companies are redesigning their performance appraisal system to focus more on employee development and learning. The appraisal process creates a competitive spirit among employees. It encourages the employee to participate in setting the goal and objectives of the organization and motivated them to perform better. Privacy in the appraisal process, trust between employee and supervisor should be followed to
make it an effective appraisal system (Irfana Akram and Fizzah Malik, 2010). An effective and suitable evaluation process in the organization provides necessary feedback to the employees and take action for inner motivation (Shaemi Barzoki Ali, 2012).

3.5.2.3 Training and Development

Training refers to the process of providing employees with specific skills and helping them in correcting their deficiencies in the performance. On the other hand development is an effort to provide employees with the abilities, the organization will need in the future. The two terms tend to be combined into a single phrase ‘Training and Development’ – to recognize the combination of activities that the organizations use to increase the skill base of the employees. The primary reasons the companies train their employees to bring their knowledge, skills and abilities up to the level required for satisfactory performance. Training motivates the employees in attempting the new tasks and eliminates fear. A sound training program helps to improve the organizational climate. Researchers identified that employee training is a learning experience that seeks relatively permanent change in employees and improves their job performance. Training offered to employees helps them to reduce their anxiety or frustration, brought on by work demands that they are not familiar with and they are lacking the skills to handle effectively (Chen, 2004).

3.5.2.4 Job Rotation

Job rotation has been defined as a systematic movement of employees from one job to another at planned intervals. It involves periodic shifting of employees from one task to another where each task requires different skills and responsibilities. Other operational terms that could be used interchangeably with job
rotation include rotational assignments, transfers, job changes, lateral moves, cross training and redeployment. The employees avail promotion opportunities after successful completion of job rotation programs (Faegri et al., 2010). Job rotation practice enhances the job involvement of the employees and improves employee’s problem-solving abilities and shared understanding of the job. In the present era organizations design customized job rotation programs according to their employees’ career aspirations (Zigarelli, 2004; Leat, 2007). The skill variety, task significance, task identity, feedback and empowerment which are inherent in job rotation significantly enhances employee motivation, commitment and job involvement.

### 3.5.2.5 Career Development

Career Development is an ongoing organized and formalized effort that focusses on developing enriched and more capable employees. Beardwell I, Holden L and Claydon T. (2004) noted that individual development interacts with the organization and its development through the individual’s career. Career development has evolved from an isolated tool for individual growth to a key strategic asset for many far-sighted organizations. It meets the needs of both the individual and the organization. Traditionally, it has been assumed that every employee wants, or should want, the same thing in a career, usually a direct path up the organizational ladder (Fink, 1992). Career Development helps the employees in finding a place in an organization where they can express excellence and contribute to the goals of the organization. An employee develops his/her career through a continuous acquisition of managerial or professional skills and experience which may bring about rewards and promotion.
3.5.2.6 Employee Participation

Employee participation consists basically in creating opportunity under suitable conditions for people to influence decisions which affect them. Operationally, the term ‘employee participation’ can be divided into two primary categories: financial and work-related participation. In the present study employee participation is taken in the context of non-monetary factor and implies work-related participation. Employee participation allows for employees’ involvement in the initiation, formulation and implementation of decisions within the company. It improves employee’s loyalty, bring cooperation between management and employees and encourages the employees to take initiative to give ideas and suggestions on the productivity of the company. It is frequently assumed in the management literature that the informational effects of participative forms of work organisation lead not only to more worker participation in organisational decision making, but also, as a consequence, to greater job satisfaction, higher employee motivation and a harmonious labour relations climate (Cressey and Williams, 1990).

3.5.2.7 Promotion Policies

Promotion is the advancement of an employee within an organization as to rank, salary, job activity and designation. Promotion is said to happen when an employee tries to shift the upward direction in organizational hierarchy and moves to a place of greater responsibility (Dassler, 2008). Promotion policies of an organization bring new responsibility to the employees, which would enhance the performance level of the employees. These promotional policies give recognition for the employee’s effort and commitment level. It can be used as a tool for motivating
and rewarding the employees for meeting the organizational goal and thus it serves as a mean of synchronizing organizational goals with personal goals (Lazear & Roen, 1981). Promotion opportunities motivate the employee better than salary or wages, especially in a competitive environment. The prestige of higher job position rather than higher wages motivates the employee to work hard (Kiyoshi Takahashi, 2006). Apart from the job satisfaction, the employees’ motivation and satisfaction are determined by the satisfaction of promotion policies of a company.

3.5.2.8 Job Autonomy

Job autonomy is defined as the degree to which the job offers considerable liberty, proving free hand and choice to the individual in scheduling the work and also defining the means to achieve the tasks (Marchese & Ryan, 2001; Morgeson, Delaney-Klinger & Hemingway, 2005). Autonomy involves responsibility for the outcomes of the work, which results in high work efficiency and higher levels of intrinsic motivation (Langfred & Moye, 2004). Autonomy has an impact on work methods, work pace and goal setting. Employees with autonomy have the liberty to control the pace of work and to regulate work processes and evaluation procedures. Autonomy and independence are not the same as autonomous workers may depend on interpersonal communication in order to complete the interdependent tasks. Job autonomy improves performance since employees have provided a support to exercise job autonomy and are trusted to perform the task. This perception leads to an increased level of intrinsic motivation and the outcome is the effectiveness in work.
3.6 ORGANISATIONAL EFFECTIVENESS

There is a saying that employees are an organization’s most valuable asset. From an organization’s point of view, motivation deals with everything that a manager knows or can use to influence the direction and rate of individual’s behaviour towards commitment. It is widely believed that when an employee is highly motivated, this goes a long way in improving organisational productivity, effectiveness and efficiency. The operationalisation of various motivation forms is an essential condition for fulfilling managerial tasks. The role of motivation also includes the engagement of subordinates to help the individual to behave according to the organisation’s rules and standards as well as delegation, coaching, mentoring and performance evaluation. In this juncture, some of the impacts of motivation on organisational effectiveness are discussed below.

- Increase in Employees’ Commitment level
- Increase in Organisational Productivity
- Change in Organisational Culture
- Curtails Absenteeism and Attrition rate

3.6.1 Increase in Employees’ Commitment Level

Employees’ commitment to the organisation is a crucial issue in today's changing world. In order to satisfy employees and make them committed to their jobs, the need for strong and effective motivation at various levels will be more necessitating. Therefore, employees’ productivity is highly related to their motivation levels and a higher level of work commitment. In most organisations employers’ concern for employee commitment is on the rise due to the high turnover and job-hopping culture which has been a major set-back for the organisation. In this
era of talent-war, employers thrive to compensate with motivational factors to gain competitive advantage in building employee commitment. In return, employee commitment will have a positive impact on job satisfaction as well as productivity (Yasmin Binti Mohamad Nor, 2011).

3.6.2 Increase in Organisational Productivity

Employee motivation has a direct impact on productivity and growth of every organisation. Motivated employees are a valuable asset, which delivers huge value to the organisation in maintaining and strengthening its business and revenue growth. Improved job performance of the employees will add value not only to the organisation, but also to the employees’ productivity. The motivation provided to the employee has reward to the employer and the organisation’s productivity (Nupur Chaudhary, 2012). Motivation leads to productivity. There is a positive and direct relationship between personnel productivity and employers’ productivity. Motivation and productivity are the twin concepts in organisational development. Effective motivation increases the employee’s productivity, helps boost group morale, encourages discipline among the employees and thus results in organisational productivity.

3.6.3 Change in Organisational Culture

Motivation is the key component of organisational culture. Organisational culture plays a significant role in an organisation regarding how people feel about their work, levels of motivation, commitment, and in turn job satisfaction. There is a clear mutual interdependence between an organisation and its employees, where both have an impact on each other’s potential in achieving success. Such a relation gives birth to the relation of employee motivation and cultural change.
Organisational culture should be prompted to ensure employee motivation in order to achieve organizational goals.

3.6.4 Curtails Absenteeism and Attrition Rate

Motivation plays the most important role in the employees’ willingness to stay with a company. Organisations need to understand what really motivates their employees and to adopt a clearly defined strategy to curtail both absenteeism and attrition rate. Proper motivation of employees is directly associated with productivity and with maintenance factors. Employees who are content with their jobs, who feel challenged, who have the opportunity to fulfill their goals will exhibit less destructive behavior on the job. They will be absent, less frequently, they will be less inclined to change jobs, and, most importantly, they increase productivity. Employers by using the work environment as a means of effectively, improve workers’ performance level. Further by using monetary and non-monetary incentives can foster staff retention and effectiveness (Kepner, 2009).

Based on the above factors of motivation and its impact a proposed model has been designed and presented below:

![Proposed Model Diagram]

**Figure - 1**
3.7 MOTIVATION FACTORS AND ITS IMPACT – EMPLOYEE’S CHOICES

Employee motivation is an intricate and sophisticated subject. However, the employer must face and deal with this topic to obtain organizational success. To enhance the understanding of employee motivation, employer must recognize the imperatives of employee motivation, its concepts, and differences in individual needs. Subsequently, the superiors need to be aware of a variety of employee motivational factors and the changes in priorities of these factors over time.

The understanding of individual differences is the most complex component process because managers have to deal with human behavior, which often is unpredictable and often arises from emotions rather than with reason (Mosley, Pietri, and Megginson 1996, p. 362). However, without a complete understanding of this vital element of employee motivation, employer may design and develop motivators that reward wrong behaviors or motivators that do not affect employee motivation at all. Recognizing individual differences will lead to study, identify, and analyze what factors motivate employees. The motivational factors differ among different occupational groups. The findings of Dongho Kim (2006) showed that the top motivating factor for managers were wages for over forty years; however, employees chose different factors over time, such as full appreciation of work done, and interesting work, and good wages as their top motivators. Further, the motivational factors revealed some statistically significant difference in the relation to the personal and occupational profile of the employees. Employee’s choices of motivation factors may differ according to their culture, position in the organisation and other personal profile. Companies should adjust the activities to improve the
effectiveness of motivational factors and create a positive impact on the employees as well as on the organizational effectiveness.

3.8 MOTIVATION IN INFORMATION TECHNOLOGY INDUSTRY

Motivation in Information Technology (IT) sector has certain special features. From the viewpoint of skill set, it requires more technical skills, language skills, high stamina and commitment to provide high quality service. As a result, all job seekers could not find entry into IT sector. However, people who could find a place have been facing paradoxical situations. In IT sector, the employees enjoy fatty salaries, comfortable working climate, weekend holidays, congenial atmosphere and less bossism on one hand and at the same time suffering from the demands of night shifts, large working hours, targets, project deadlines, job insecurity, etc., on the other. As such, there is a problem for the employees in convincing the management to overcome their difficulties and simultaneously management is facing problems to motivate the employees to make them feel comfortable and continue their attachment towards the organization. Thus, motivation has become a problem for both employees as well as the management. This demands a new understanding to redefine the motivational methods and packages that can be adopted in IT sector so as to see that there is a satisfactory climate to be enjoyed by both.

3.9 OVERVIEW OF INFORMATION TECHNOLOGY INDUSTRY

The Information Technology (IT) Industry has become one of the most robust industries in the world. Information Technology more than any other industry or economic facet, has an increased productivity, particularly in the developed world, and therefore is a key driver of global economic growth. Economies of scale
and insatiable demand from both consumers and enterprises characterize this rapidly growing sector. The Information Technology Association of America (ITAA) explains 'Information Technology' as encompassing all possible aspects of information systems based on computers. Owing to its easy accessibility and the wide range of IT products available, the demand for IT services has increased substantially over the years. The IT sector has emerged as a major global source of both growth and employment (Economy Watch, 29 June 2010).

The Indian Information Technology Industry has registered tremendous growth over the past decade, achieving iconic status all over the world and a reputation for reliable and cost-effective delivery of services. In the present day of the world, India is recognised as the outsourcing destination of choice in the world. India's IT industry can be divided into five main components, viz. Software Products, IT services, Engineering and R&D services, ITES/BPO (IT-enabled services/Business Process Outsourcing) and Hardware. Export revenues primarily on project based IT Services continue to drive growth with IT Services accounting for 59% of total revenues, followed by BPO and Engineering services at 20% and Software Products at 19%. The major developed markets are sourcing IT/ITES from India to gain bottom-line benefits, improving their competitive edge. The Indian IT industry has emerged as one of the most dynamic sectors in India’s economic development and is responsible for the global recognition of India as a ‘soft’ power. In addition to fuelling India’s economy, the IT-ITES industry has been influencing the lives of its people through active direct and indirect contribution to various socioeconomic parameters such as employment, standard of living and diversity. This industry is playing an important role in India currently and has transformed
India's image from a slow moving bureaucratic economy to a land of innovative entrepreneurs (Kamdar, 2006).

The IT sector in India is generating 2.5 million direct employments. India is now one of the biggest IT capitals of the modern world and all the major players in the world IT sector is present in the country. According to Gartner, the "Top Five Indian IT Services Providers" are Tata Consultancy Services, Infosys, Cognizant, Wipro and HCL Technologies. Indian IT companies have set up over 600 delivery centres across the world and are engaged in providing services with presence in over 200 cities across 78 countries. As a proportion of national GDP, the sector revenues have grown from 1.2 percent in FY1997-98 to nearly 8.1 percent in FY2013-14. India continues to maintain leadership position in the global sourcing arena, accounting for almost 55 percent of the global sourcing market size in 2013 as compared to 52 per cent in 2012.

3.9.1 Exports

The Indian IT exports are estimated to gross USD 86 billion in FY2013-14, growing by 13.1% over FY 2012-13 and contributing nearly 82% of the total IT-ITES revenues (excluding hardware). A combination of solutions around disruptive technologies such as SMAC (Social media, mobility, analytics and cloud)), artificial intelligence, embedded systems etc. have become the life-force of the industry. IT services exports are expected to be the fastest growing segment in FY 2013-14, with a growth over 14%, generating exports of USD 52 billion, driven by collaboration, communication, business intelligence projects, and integration of SMAC services with traditional offerings.
During FY 2013-14, ITES/BPO exports are likely to be USD 20 billion, with a growth rate of 11.4% over FY2012-13. Customer Interaction Services (CIS) continue to have the largest share of 41%, followed by Finance and Accounting (F&A) 23% and Knowledge Services (KS) 19%. Within the BPO segment, Knowledge services are the fastest growing segment and is expected to generate export of USD 3.7 billion, as compared to USD 3.2 billion, a y-o-y growth of over 15%. Software products and ER&D segment achieved a double-digit growth rate of 11% over FY 2012-13 and is estimated to generate exports of US$ 14.2 billion in FY 2013-14. The domain specific solutions focusing on convergence, customization, efficiencies and localization, M2M technology and newer technologies around SMAC are playing a significant role in driving the growth of ER&D and software products. With over 3,000 firms, India is emerging as a hotbed for software products with SMAC and a supportive ecosystem creating successful stories.

3.9.2 Domestic Market

The Domestic IT revenue (excluding hardware) is estimated to reach INR 1147 billion in FY2013-14, as compared to INR 1041 billion in FY2012-13, a y-o-y growth of 10%. During FY2013-14, domestic IT services growth is likely to be at 9.7% as large enterprises exhibit cautious spending pattern; driven by technology upgrades in BFSI, telecom and State Governments, and compliance of MIS investments. The domestic BPO services growth is estimated at 12% in FY2013-14, driven by demand from select customers reverting to outsourcing business processes, especially from the BFSI, automotive and retail sectors. Domestic software products are estimated at 9.5% due to increased demand for retail, healthcare, education, manufacturing and SMAC (Social media, mobility, analytics and cloud) -based solutions. With the advent of cloud, the next opportunity is India’s 47 million SMBs, who are able to rapidly bridge the technology adoption gap.
The growth of India's IT sector has brought about many other positive changes in the Indian economy. The purchasing power of a large section of the Indian population has increased dramatically. This has resulted in an increase in the average standard of living of the majority of the population of the country. The increase in purchasing power of the common people has propelled the growth rate of the other sectors of the economy as well. Currently, India's competence in IT is more significantly proven in computer software and information technology enabled services, which is recognized globally. The software industry is not only growing exponentially, it is moving up the value chain. It is evolving, from the initial staffing to software development - where it is currently the world's major supplier of engineers - to integration and IT business consulting.

3.10 INFORMATION TECHNOLOGY INDUSTRY IN TAMIL NADU

Tamil Nadu is one of the foremost “Knowledge States” in the country. Tamil Nadu has been endowed with a capable human resource, which is well suited to the needs of modern industry. The State ranks high with an annual turnout of about 1,92,000 Engineering Graduates and an equal number of trained Polytechnic students. The state offers immense scope for the establishment of Knowledge based Industries and Services in the State. Information Technology has helped the transformation of Tamil Nadu into a modern economy. Tamil Nadu has emerged as one of the leading players and acknowledged Global leader in certain verticals of the Information Technology (IT) and Information Technology Enabled Services (ITES) sector. The software exports from the State during the year 2012-13 is expected to be around Rs.50,000 crores with an impressive growth rate of more than 10%. Continuous efforts are being taken to attract more IT/ITES investments in the State. Tamil Nadu has emerged as one of the leading players and acknowledged Global
leader in certain verticals of the Information Technology (IT) and Information Technology Enabled Services (ITES) sector, such as Banking, Financial Services and Insurance (BFSI), Health Systems Management, Computer Aided Designing (CAD) and Computer Aided Engineering (CAE). With more than 1,780 IT / IT Enabled Services (ITES) companies, over 3,75,000 professionals and annual IT exports of Rs.50,000 crore, Chennai, with its IT Bay Area, towers over other major cities as an IT and ITES powerhouse.

Chennai has earned its reputation as one of the premier emerging technology centres of India. The cosmopolitan city is now the hub of many IT and ITES giants across the globe. The objective of the Government is to make Chennai and Tamil Nadu the destination of choice for IT and ITES projects. Since the late 1990s, software development and business process outsourcing and more recently electronics manufacturing have emerged as major drivers of the city's economic growth. Chennai has been rated as the most attractive Indian city for offshoring services according to A T Kearney's Indian City Services Attractiveness Index 2005. Major software and software services companies like Aricent, Accenture, Cognizant Technology Solutions, Capgemini, CSC, EDS, SAP AG, Oracle Corporation, Cisco Systems, HCL, HP, IBM, Infosys, Satyam, Sun Microsystems, Symantec, TCS, Verizon, Wipro, CSS Corp and US Technology Resources, Dassault Systèmes, eBay, Honeywell, VMware, Intel, Amazon, Tech Mahindra, IGATE Patni, Adobe Systems, AT&T, MindTree, Ford Sync, Ramco Systems, Bosch, Deloitte, CA Technologies, Microsoft have development centres in the city. The city is now the second largest exporter of IT and IT enabled Services in the country besides Bangalore. The IT Corridor, on Old Mahabalipuram Road in the southeast of the city has several technology parks. It is expected to provide employment opportunity
to nearly 3,00,000 people. Besides the existing Tidel Park, two more Tidel Parks are on the anvil in the IT corridor. One is under construction in the Siruseri IT Special Economic Zone ("SEZ") and the other one is being planned at the current location of MGR Film City which is just before the existing Tidel Park, in Taramani on the IT Corridor. A number of SEZ have emerged in and around Chennai. The Mahindra World City, New Chennai, a Special Economic Zone (SEZ) with one of the world's largest high technology business zones, is currently under construction on the outskirts of Chennai. It also includes the World's largest IT Park by Infosys.

### 3.11 FUTURE PROSPECTS

Globalization has a profound impact in shaping the Indian Information Technology Industry. Over the years, sectors like manufacturing, telecom, insurance, banking, finance and lately the retail, have been the growth drivers for this sector. But it is very fast to realize that the future growth of IT and IT enabled services will be fuelled by the verticals of climate change, mobile applications, healthcare, energy efficiency and sustainable energy. The near future of Indian IT industry sees a significant rise in share of technology spent as more and more service providers both Indian and global, target new segments and provide low cost, flexible solutions to customers. According to NASSCOM, “newer geographies’ are set to double their contribution to India to 20% by 2020”. As per the estimation of NASSCOM purely domestic and export services of the Indian IT sector is expected to generate US$ 225 billion by 2020. The landscape of the global IT and ITES market is changing rapidly and it is totally up to the Indian IT sector now to adapt to this changing landscape. After all India is still a major brand name in the global IT and ITES sector.