A STUDY ON KNOWLEDGE WORKERS MANAGEMENT STRATEGIES IN INDIAN IT SECTOR: A KEY TO ENGAGEMENT AND RETENTION

THESIS

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by

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DEDICATION

I dedicate this thesis to my grandfather and grandmother
Lt. ***Sh. Sriram Nagar*** & Lt. ***Smt. Kasturi Devi***

DECLARATION

I hereby declare that this thesis entitled **A study on Knowledge workers Management Strategies in Indian IT sector: A key to engagement and retention** by Munish**,** being submitted in fulfilment of the requirements for the Degree of Doctor of Philosophy in Management under Faculty of Management Studies of YMCA University of Science & Technology Faridabad, during the academic year 2018, is a bona fide record of my original work carried out under guidance and supervision of **Dr. Rachna Agrawal, Associate Professor** and has not been presented elsewhere.

I further declare that the thesis does not contain any part of any work which has been submitted for the award of any degree either in this university or in any other university.

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CERTIFICATE

This is to certify that this Thesis entitled **A study on Knowledge workers Management Strategies in Indian IT sector: A key to engagement and retention** by **Munish,** submitted in fulfilment of the requirement for the Degree of Doctor of Philosophy in **Management** under Faculty of Management Studies of YMCA University of Science & Technology Faridabad, during the academic year 2018, is a bonafide record of work carried out under my guidance and supervision.

I further declare that to the best of my knowledge, the thesis does not contain any part of any work which has been submitted for the award of any degree either in this university or in any other university.

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ABSTRACT

Knowledge workers engagement and retention are the difficult challenges which are being faced in the current era of global business by business organizations. Employee engagement and retention are the whisper words in the Information Technology sector across the globe and particularly in Indian organizations. Indian Information Technology Industry deploys highly competent professionals who have specialized knowledge at top and operational level and these sort of human force are generally called Knowledge Workers. As it is evident that Information Technology sector of India is considered as the biggest job creator and provider in the Indian economy and its development can be measured since 2000. It is the most popular sector and conducive workplace especially for the young dynamic generation. The scarcity of knowledge workers make employer concerned with retaining and engaging these vital employees.

Few researchers and contributions have been made regarding engagement, retention and management strategies. However the study regarding these three aspects in Indian IT has not been found. Literature review has been presented and studied that tried to examine and analyze the different factors like organizational commitment level , communication level, work commitment, employee motivation level, rewards, HRM practices, pay, market forces, employee work cycles, recreational activities, employers concerns, work assignment , conducive learning environment, management development programmes, organizational factors, employee engagement practices, employee loyalty, role of psychological contract, organizational climate, training and development activities, employer value proposition, quality of work life etc. these variables are prominently influencing and affecting the employee engagement and retention in the organizations. However, the review of literature does not reveal that direct impact of knowledge workers management strategies on level of engagement and retention. The current study is therefore focused on studying the role of knowledge workers' management strategies in knowledge workers' engagement and retention in Indian Information Technology Industry of India.

As coverage of India, four pre- determined zones have been taken for the current research study. For the current study, a total of 100 IT companies were selected from North *Zone:* Delhi and NCR, *East Zone:* Kolkata, *South Zone:* Chennai and *West Zone:* Mumbai. Total number of respondents were 501 from selected companies across India.

The study includes the statements related to knowledge worker's engagement, retention and management strategies in Indian Information technology sector. The statements of the questionnaire were framed on the basis on literature reviews, expert advice and pilot survey. Observations were analyzed with the help of frequency distribution, descriptive analysis, one way ANOVA and exploratory factor analysis with the help of SPSS software version 21. Thereafter, to verify the relationship factor structure of a set of observed variable and latent constructs, confirmatory factor analysis was used with help of AMOS. To analyze the impact of knowledge workers management practices on knowledge workers retention and engagement the structural equation modelling was applied that is used to analyze the structural relationship between measured variables and latent constructs.

On the basis of the findings of the study it can be said that there is a strong relationship between knowledge workers' management strategies and their engagement and retention. The study concludes the main factors of knowledge workers engagement practice such as; Work Assignments, Rewards & Recognition, Opportunities, Team Work, Immediate Supervisor, Communication level, Quality of Work Life and recreational activities, plays a vital role in success of the organization's in Indian IT sector.

The study concludes the main factors of knowledge workers retention practice such as; Overall Relationship, Compensation structure, Career, Work life programmes, working Culture, leadership and Benefits programmes, plays a deciding role in success of the organization's in Indian IT sector. The current study reveals that, employer's awareness, rewards, recognition and growth, Work policies and Arrangements and Employer's concern and care, plays a huge role in the knowledge workers retention and engagement in Indian IT industry.

Result of descriptive indicates that, the financial position of the organization, experience with current organization and age of the respondents determines the level of engagement, retention and management strategies which are being given in detail in the study. Various problems pertaining to knowledge workers engagement and retention has been extracted for resolving by giving various suggestions have in the study. To engage and retain the knowledge workers, the measures may be applied with the reference from findings extracted and suggestion made in this study.

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Abbreviations	Full Form
IT	Information Technology
KW	Knowledge Worker
KWMS	Knowledge workers Management Strategies
KWEP	Knowledge workers Engagement Practices
KWRP	Knowledge workers Retention Practices
EFA	Exploratory Factor Analysis
CFA	Confirmatory Factor Analysis
RCM	Rotated Component Matrix
SEM	Structural Equation Modelling
OCB	Organization Citizenship Behaviour
HRM	Human Resource Management
R&D	Research and Development
BPO	Business Process Outsourcing
GDP	Gross Domestic Product
BPM	Business Process Management
NASSCOM	The National Association of Software and Services Companies
IBEF	India Brand Equity Foundation
ANOVA	Analysis of Variance
SPSS	Statistical Package for Social Sciences
KMO	Kaiser Meyer Olkin

CHAPTER - I

INTRODUCTION

The most challenging task is human resource management in business world. The changing nature and dynamic mind of human being always became a matter of discussion and research. In this way, concept of knowledge workers and related dimensions would also be the matter of depth and detailed research. This particular chapter summarizes the basic aspects of knowledge workers. Viewpoints are extracted from some of prominent researchers in the particular field. It includes the various concepts of knowledge and knowledge workers.

Knowledge workers engagement and retention are the difficult challenge which is being faced in the current era of global business by business organizations. Employee engagement, Retention and attrition are the whisper words in the Information Technology sector across the globe and particularly in Indian organizations. Indian Information Technology Industry deploys highly competent professionals who have specialized knowledge at top and operational level and these sort of human force are generally called Knowledge Workers.

Knowledge workers are the vital assets of the organizations due to their greater knowledge and strategic decision making that leads to productivity and efficiency in operations that enhance long term sustainability. Knowledge workers are significant for organizations in today's dynamic business environment. Retention and engagement of this profession fetch the good level of productivity, so this study also focuses on this matter rigorously. The prominent review of literature stipulates the timeline progress and developments in the area of employee engagement and retention, their recognition, rewards and growth. This research also illustrates the earlier efforts done in this field.

1.1 BRIEF INTRODUCTION OF THE TOPIC- Reason for the choice of topic

The productivity of knowledge and knowledge workers will not be the only competitive factor for modern businesses in the global economy. It is, however, likely to become the most decisive factor, at least for most industries in the developing economies. Knowledge workers are a large and growing category of workers. They are also the most expensive type of worker that organizations employ, so it's not good if they're not as productive as they could be. They are vital key to the growth of many developed and

developing economies. It's already apparent that the firms with the highest degree and quality of knowledge work tend to be the fastest-growing and most profitable. Generally organizations tend to be those with a high number of knowledge workers. Within organizations, knowledge workers tend to be closely aligned with the organization's growth and productivity prospectively. Knowledge workers in management roles come up with new ideas and strategies.

Knowledge workers in reasech & development and in engineering create new products, new ideas and benchmarks for efficient productivity levels. It is equally important, top management must pursue IT and productivity growth and opportunities at the right and highest level of granularity. While it might be enticing to think that a stated approach will work well for an entire organization, reality is hardly so tidy. The unit of analysis should be particular jobs and work role or at least clear cut categories of jobs and roles. To move the pointer in a specific business unit, it’s not enough to launch a set of company-wide initiatives. Instead of that top leaders of knowledge workers should comprehend the key distinction among them and tailor made solutions to these abnormality. High turnover can be dangerous to a company's productivity, if skilled workers are often having leaving intentions and the worker population contains a high percentage of knowledge workers

As it is evident that Information Technology sector of India is considered as the biggest job creator and provider in the Indian economy and its development since 2000. It is the most attractive sector and conducive workplace for the young dynamic generation. The rationale behind this study effort must be spread out clearly to the concerned. This will enable readers to understand analyse and motivate of the researcher in undertaking this vital task.

The scarcity of knowledge workers makes employers very concerned with attracting and retaining these vital employees. In order to recruit and retain knowledge workers, employers may offer highly competent salary structures, attractive and conducing work environments, and continuing educational/recreational opportunities. Employers take proactive actions designed and implemented to attract and retain knowledge workers for long periods by creating an independent community, respecting knowledge workers as new supervisors and providing growth and development opportunities. In a freelance community, employees have the autonomy to select their working methods and work

life in the environment in which they operates best. Treating knowledge workers as the new managers means that management functions as a facilitator rather than as an executive of work. This provides knowledge workers the freedom they need to execute their work roles as they see appropriate. Employers make work more attractive and rewarding by providing growth career development opportunities, such as those that are connected with ongoing training and development programmes, assignments, and changing of jobs roles and tasks responsibilities. By applying such measure, employers attempt and try to address the vital issue of knowledge workers scarcity.

1.2 A BRIEF EXPLANATION OF THE KNOWLEDGE

As indicated by Webster's Dictionary, knowledge is "the reality or state of knowing something with recognition increased through involvement or affiliation". Practically speaking, there are numerous definitions, similarly conceivable meaning of knowledge. A frequently used lines for knowledge is 'the thoughts or understandings which are utilized to make successful move to accomplish goals.' The conceptualization of knowledge has been described by a consultation on the origin and characteristics of knowledge workers in organizations and the vital issues concerned with the management of knowledge workers are to be pivotally identified and analysed. A theoretical substructure of contextual factors that distinguish the management of knowledge workers will also be further discussed.

It can be said that Knowledge has been considered globally as a strategic tool for economic development. It appears that more organizations have foreground being knowledgebase entities, companies those depend more on the cognitive capabilities of employees, in order to sustainable development and sense of competitive advantage in an cut throat competitive business environment of modern digitization.

1.3 IS KNOWLEDGE AN ASSET OR LIABILITY?

Knowledge is really an asset that makes a vital difference among the persons who have knowledge and who have not. The traditional term 'worker' makes a huge difference in the knowledge workers by only adding the word 'knowledge'. The knowledgeable person in an organisation has always been treated as an asset. It is rightly stated by Blackler et al, (1993) that knowledge workers are problem identifiers in organizations, who assist to identify and analyze the customer needs in the market such as marketers, advertisers, as they plays a huge role in development of organizations.

As an asset, knowledge workers have the skills-set of concepts, high level of thinking, experimentation and of ventures with other supporting partners within and outside the company. Knowledge workers can collectively utilize their technical and behavioural skills-set with marketing, finance, HRM, Information Technology, Research and development wings, strategic and financial department and gains a lot of useful insights.

Knowledge is a liability too because it is necessary to have the knowledge in the right direction. It is a prime duty of knowledge workers to use their knowledge in achieving the organisational goals. Being an asset in the organization is vital to ensure job security, productivity and overall success in one's career, but it is a challenge for employer. Below are some vital points, which indicate knowledge workers as a liability for top management. From financial perspective, an employee is a liability as companies commit to pay handsome amount for a period of time, sometimes without knowing that have income against them. Often in the working environment, people felt apprehensive to talk and raise thoughts - even then they are totally sure that their thought is valuable to the organization. One should figure out how to impart concerns, thoughts, or challenges with colleagues tactically as it can show to an employer one's capacity to function well in a group domain.

Workers with high grade of knowledge are highly investigative by nature and seek their own answers without consulting to anyone. These people are innovative in nature and offer new solutions to management without reacting to it much. In today's dynamic business environment it is hard to hold and hide the information from competitors; therefore it becomes a liability for management to hold information by these knowledge workers. Therefore knowledge workers are both, assets and liability; the employers must play an active role to handle the knowledge as an asset.

1.4 ORIGIN & CONCEPT EXPANSION OF THE TERM 'KNOWLEDGE WORKER'

The term knowledge workers first used by Peter Drucker in his 1959 book, **Landmarks of Tomorrow**, the knowledge workers include those in the information technology field, such as programmers, systems analysts, technical writers, academic professionals, researchers, and so forth. He defined knowledge workers are those workers who have the full knowledge & and competency in their own area, high awareness and having capability to notice, merge and explain data and use the information to make good

solutions for the organization. The term is also frequently used to include people outside of information technology, such as lawyers, teachers, scientists of all kinds and also students who has mastery in a specific field.

"The most important, and indeed the truly unique, contribution of management in the 20th century was the fifty-fold increase in the productivity of the Manual Worker in manufacturing. The most important contribution management needs to make in the 21st century is similarly to increase the productivity of Knowledge Work and the Knowledge worker." These precious words are written by **Peter F. Drucker (b. 1909) American Management Consultant.**

Knowledge Workers Productivity will be the biggest Challenge faced by organizations as mentioned by Peter Drucker. He defines additional context and frameworks with help of six factors for knowledge workers productivity (1999):

- Knowledge worker's productivity demands, "What is the task?"
- Force the obligation regarding their profitability on the individual knowledge workers themselves. Knowledge workers need to oversee themselves.
- Proceeding with development must be a piece of the work.
- Knowledge work requires persistent learning with respect to the knowledge workers, yet similarly constant instructing with respect to the knowledge workers, yet similarly consistent educating with respect to the Knowledge workers.
- At last, knowledge workers efficiency requires that the knowledge workers is both seen and regarded as an "advantage" instead of a "cost." It requires that knowledge workers need to work for the association in inclination to every single other opportunity.

Knowledge workers are emerging group of talented workforce in emerging economies globally. Their specializations come from special tactics of information sharing and decision making of knowledge and knowledge work and its productivity. Knowledge includes, therefore called explicit, implicit and tacit measureable extent.

1.5 THE QUESTION EMERGES - WHAT KIND OF EMPLOYEES CAN BE CONSIDERED AS KNOWLEDGE WORKERS?

Knowledge workers are those whose main capital is knowledge. A knowledge workers is an employee whose primary contribution to the workplace is knowledge of a specific

subject. Some examples of knowledge workers include physicians, academics, engineers and architects. Knowledge workers may be called thinker, rather than performing manual or interpersonal tasks. While most jobs require some degree of knowledge work, employees designated as knowledge workers are generally differentiated by their ability to solve problems and develop new resources in their specific field of expertise.

Knowledge workers should be described with nature of work they performed. Knowledge workers majorly associated with nature of non-routine functions like: strategic decision making, execution, competitor planning etc. Their work is comparatively more complex, analytical and dynamic in nature typically concerned with manipulating and analysing information, concepts, and raw information.

1.5.1 Types of Knowledge Workers

Current three type of Knowledge workers persist in business arena, those are as under:

- **Knowledge Generators** - These are major primary sources of new knowledge acquisition: the professional who are the subject experts, practitioners, talkers & explorers. They answer the business questions, generalize and implement theories, discuss critical business ideas, and find solutions for organization to get competitive advantage over rivals.
- **Knowledge Consumers** - These are the professionals who use the relevant business information in the system to find out critical aspects of the data but have somewhat less to offer themselves. They ask vital questions regarding the productivity, they search the management information data base, and listen attentively.
- **Knowledge Brokers** - These are the professionals who do not generate significant knowledge and information themselves, but are enough skilled and efficient in finding relevant information. The real example of a knowledge broker is the company secretary; a good secretary is a database of knowledge about how to get the things in a desired way. Brokers are the experts who technical and behavioural know –how and where to look for proper solution of a business situation. (Source:http://incrediblydull.blogspot.com/2007/10/three-types-of knowledge-workers.html)

Knowledge Workers examples- For better understanding a few may be named as, Researchers, engineers, legal advisors, planners, PC developers, educators, custodians, chroniclers, editors, writers, surveyors, purchasers, merchants, salespeople, publicizing specialists, business people, directors, supervisors, process control employees, banking and IT professionals etc.

1.6 CHARACTERSTICS AND ROLE OF KNOWLEDGE WORKERS

1.6.1 Characteristics of Knowledge Workers

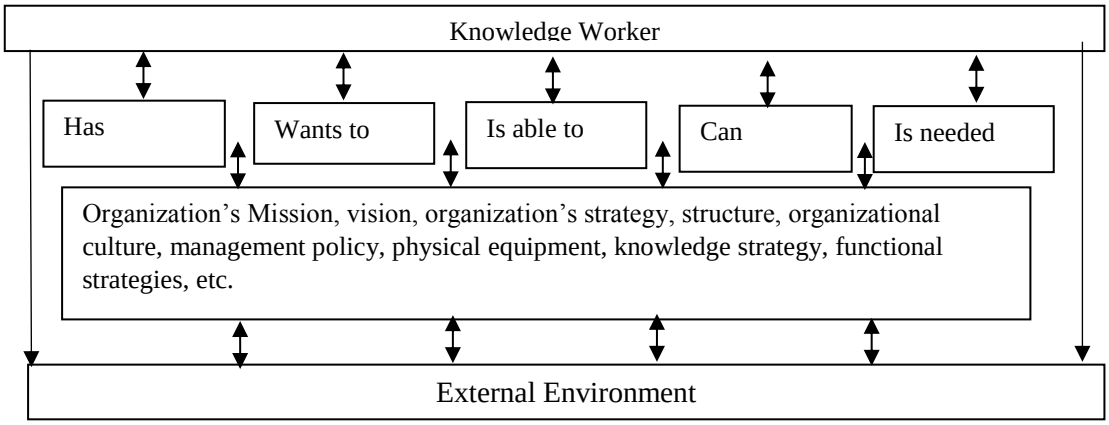
After extensive study of various research papers and articles on knowledge workers the researcher see knowledge workers as the professional who possess:

- Highly committed and dedicated to their job roles.
- Tends to Create, implement, and distribute knowledge base.
- Functions in an autonomous way within effective leadership and organizational structures.
- Very Ambitious and works as a mobile resource, and their main concerned is about their career development.
- Highly dynamic in nature, looks for opportunities.
- Driven by accomplishment of assignments and outcomes.
- Proactive to co- workers assessment and performance appraisals.
- Believes in ‘pulled’ strategy
- Part of a network of peers, both inside and outside the organization.
- Always keen for continuous learning and improving.
- Knowledge workers are self-driven and manage their affairs. Their positions needs creativity, innovation and problem solving capabilities.

From the above mentioned point it is clear that a learning organization require the expertise of knowledge workers all the time. It is a knowledge worker, who possess the knowledge, not the organization. Therefore, these important employees should be engaged and remain for long period of time in the organization is beneficial for the management.

For more clarification the following diagram is also helpful:

Figure 1.1 Knowledge workers characteristics



Source: Figurska, 2015(Science Publishing, London)

The capability of knowledge workers is affected by both the organization, its goal, vision, technique, structure, culture, administration strategy, he works in and additionally the outside conditions including information, data and learning. External environment plays a huge role in the capacity to perform of a knowledge worker. Therefore, a knowledge workers always analyze the inner and external conditions of a business on a regular basis.

Knowledge work is unpredictable and the individuals who perform it require certain aptitudes and capacities and also commonality with genuine and hypothetical learning. These people must have the capacity to discover, access, review, and apply data, communicate well with others and have the capacity and inspiration to secure and enhance these abilities. Knowledge workers, no doubt have exceptional capabilities and huge potential scope to learn and implement. The contribution of knowledge workers has been reflected in enhancing the efficiency and productivity of the organisation.

The Following are the some basic characteristics a knowledge worker's generally possess.

- **Having factual and theoretical knowledge**

Today is the age of information. The person with right factual knowledge is having capability to enhance the productivity of organisation and it is actual reflection of knowledge workers. They apply their knowledge base to make the organisation updated and upgraded. Knowledge analyze the data facts with a blend of related theoretical approaches and come out with a good solution to the problem.

- **Finding and Accessing Information**

Knowledge workers are having capability to find out and access the information required as all the information doesn't show the results or all does not have concern with organisation. Knowledge workers should know how to autonomously distinguish and find relevant information. Such employees need to know which sources give the data they need and know how to utilize these sources with a specific end goal to utilise data effectively.

- **Capacity to apply Information**

Knowledge workers utilize data to answer questions, take care of issues, finish composing assignments and create thoughts. Utilization of analogical thinking and significance judgment empowers employees to address effectively individual and client benefit related issues. Analogical thinking is knowledge based critical thinking process in which people apply data from points of reference to new circumstances. Pertinence judgment is the procedure by which people choose whether or not a point of reference is appropriate to the current issue. The non-monotonous nature of learning specialists' occupations makes vital the capacity to apply data to new circumstances.

- **Communication Skills**

Knowledge work is described by close contact with clients, managers, subordinates, and peers. Knowledge workers must have the capacity to talk, read, compose, and tune in one-on-one and gather settings. Accentuation on quality client administration and customization of products and ventures to meet individual client needs and needs carries knowledge workers into close contact with clients. The objectives of authoritative viability and ceaseless change of items, together with the need to constantly consider new data so as to achieve work, require correspondence amongst manager and administered and among partners or associates. Knowledge workers have correspondences abilities that empower them to team up with each other for objective setting, basic leadership, and thought producing purposes.

- **Self-Motivation**

Knowledge workers must be self-motivated as the motivation is key to work hard to achieve objectives. The idea of knowledge work requires consistent development, as far as authority of data and ability improvement, with respect to the individuals who do this sort of work. Learning specialists must progress toward becoming and stay inspired by discovering data, remembering that data, and applying it to their work. Since new

mechanical advancements approach knowledge workers to change ceaselessly the way they achieve their work, knowledge workers must keep up a want to apply their abilities toward fusing new data and new advances into their work.

- **Intellectual Capabilities**

Knowledge workers must have the scholarly capacities to get the work done too. Such educated limits incorporate those worried about the understanding, review, preparing and utilization of particular data. People who perform learning work must have the capacities expected to obtain fitting relational abilities and to figure out how to make sense of where and how data can be found. Knowledge workers can figure out how to peruse and compose at postsecondary levels and to perform dynamic thinking. They likewise have the scholarly ability to comprehend the benefit of obtaining and keeping up the information and aptitudes expected to achieve their work.

The above mentioned characteristics' of knowledge workers are few in numbers. These workers possess many more characteristics' such as creative problem solver, interpreter and decision maker etc. which may affects the performance of the organization.

1.6.2 Role of Knowledge Workers

Role played by a knowledge workers in organization in the following way. These include:

- Analyzing the data to establish relationships among situations
- Assessing input in order to evaluate complex or conflicting priorities in business
- Identifying and understanding trends of business
- Making connections with strategic partners
- Understanding cause and effect relationship in strategic business activities
- Ability to brainstorm the causes, thinking divergently
- Ability to extract down, creating more convergent thinking
- Planning and producing a new capability
- Creating or modifying a strategic decision

1.7 RELEVANCE OF KNOWLEDGE WORKERS IN INDIAN IT SECTOR

The well-known management guru, **Peter F. Drucker** wrote in his book 'Management Challenges for the 21st Century' that the most valuable asset of a 21st-century institution will be its knowledge workers and their productivity. More than a decade later, Information Technology (IT) industries in India are facing the issues of

knowledge workers and their productivity. The term 'knowledge worker' has been highlighted with reference to Information Technology sector. The significance of knowledge workers is increased where the particular industry or sector depends on only knowledge and its applications.

Indian IT sector is growing day by day since 2001. It plays a huge role in the development of the country. The whole job scenario has been changed with IT sector in India. The preferences and choice pattern regarding job and career has been gone through a drastic move in India. A lot of job opportunities is lying here, it becomes the major employment provider in the country. IT sector contribute to Indian GDP significantly. The IT industry is growing day by day at a very rapid pace. The global Information Technology (IT) market (excluding hardware) reached US$ 1.2 trillion in year 2016-17, while the global sourcing market increased by 1.7 times to reach US$ 173-178 billion. India remained the world's top sourcing destination in 2016-17 with a share of 55 per cent. Indian IT companies have set up over 1,000 global delivery centres in over 200 cities around the world. IT industry revenues (excluding hardware) is estimated at around US$ 130 billion in year 2015-16 and is estimated to be at US$ 154 billion in year 2016-17. (Source: https://www.ibef.org/industry/information-technology-india.aspx)

1.7.1 The significance of the IT Sector

- The contribution of the IT sector to India's GDP stood at 7.7 per cent in 2016.
- TCS is the market leader, accounting for about 10.4 per cent of India's total Information Technology (IT) sector revenue in year 2016
- The top 5 IT firms contribute over 25 per cent to the total industry revenue, indicating the market is fairly competitive.
- The domestic revenue of the IT industry is estimated at US$ 38 billion and export revenue is estimated at US$ 117 billion in year 2017.
  (Source: https://www.ibef.org/industry/information-technology-india.aspx)

  The height of this IT sector is only possible due to the knowledge a software professional possess and its implementation in day to day business scenario. The IT sector of India is currently facing, various business issues generally rises, like of timings, young task force, behaviour of bosses, compensation structure,

knowledge creation and knowledge sharing, dynamically changing environment, different types of knowledge, culture of metro cities, standard of living, new job opportunities at your door steps, home and host countries ventures, different modes of communication, workforce diversity etc. are the main concerns, the IT sector of India is currently facing.

Knowledge workers contribution is very significant for the IT organizations to satisfy the particular function. They may consist:

- Giving specialized tasks
- Taking care of one of a kind of customer/client issues
- Tending to open-ended request by vendors

Generally, if the knowledge can be held, knowledge workers commitments will serve to grow the knowledge resources of an organization. In these information escalated circumstances, knowledge workers play an immediate, essential part in expanding the monetary estimation of an organization. They do their best by discovering arrangements on how they can discover better approaches to make benefits and can be connected with market and research.

The theory of Human Interaction Management state that there are 5 standards principles compelling knowledge work and knowledge workers:

- Build powerful groups
- Communicate effectively
- Make, share and look after Knowledge
- Adjust your time frame for vital objectives
- Consult next stage as you work

  (Source: https://30sdc.files.wordpress.com/2011/09/ebook03.pdf)

Another, recent breakdown of knowledge work demonstrates the movement that ranges from tasks performed by knowledge workers to worldwide in organizations. There are seven levels or sizes of knowledge work, with references for each are referred to.

- Knowledge work (e.g., composing, breaking down, prompting) is performed by knowledge worker's in every aspect of an association. Knowledge work started with the beginnings of composing and tallying of relevant data, it was first distinguished as a classification of work by Drucker.

- Knowledge Functions (e.g., catching, sorting out, and giving access to information) are performed by specialized staff, to help organizations to apply the composite knowledge to achieve the goals.
- Knowledge Process (protecting, sharing, and incorporation) are performed by knowledge workers, as a major aspect of an information administration program. Information forms have advanced working together with universally useful innovations, for example, the printing press, mail conveyance, the broadcast, phone systems, and the Internet.
- Knowledge Management programs interface the age of learning (e.g., from science, combination, or learning) with its utilization (e.g., arrangement examination, detailing, program administration) and additionally encouraging hierarchical learning and adjustment in a learning association. Information administration rose as a train in the 1990s.
- Knowledge organizations transfer outputs (content, items, administrations, and arrangements), as information administrations, to empower outer utilize. The idea of learning associations developed in the 1990s.
- Knowledge services support other organizational services administrations, yield better results, and result in benefits for nationals with regards to information markets. Information administrations rose as a subject in the 2000s.
- Online networking systems empower knowledge organization's to co-create learning yields by utilizing their inside limit with gigantic interpersonal organizations. Long range informal communication has been developed in the 2000s.

The chain of importance ranges from the efforts of individual expertise, through specialized action, proficient activities, and administration programs, to authoritative system, learning markets, and worldwide scale organizing. This system is helpful for various kind of learning work in respect to each other and inside the setting of organizations, markets, and the worldwide knowledge economy.

1.8 IMPORTANCE OF KNOWLEDGE WORKERS IN GLOBAL ECONOMY

Peter Drucker, who was the individual to describe knowledge workers to any generous degree (in his 1959 book Landmarks of Tomorrow), stated as far back as 1968 that:

The New Global Economies are driven by knowledge workers. The gaining attraction of knowledge workers to both rural sector and urban sectors, has more economic and social values and benefits to the societies and these workers live and work in. The developing and developed economies get benefits because industries are gaining attraction to the places where knowledge workers operates. Business that enlarge or businesses that relocate to new geographical states wish to be in places that have assets or facilities that will be more attractive to the knowledge workers currently employed. It is the need of the organizations which has to create place where knowledge and knowledge workers can grow significantly.

To become Knowledge management successful and productive, a systematic and authentic approach to capturing and nurture the key professional is required and this will be directly related to knowledge to create greater value which can use of a business collective expertise and knowledge to create greater value. The potential advantage of effective knowledge workers are significant in most processes.

1.9 KNOWLEDGE WORKERS MANAGEMENT

As such, prominent definitions, various concepts, classifications of theories and views on who is a knowledge workers are highly dependent on the background, preferences and understanding of individual authors and of course of requirement of skills in organizations in which knowledge workers operates.

Knowledge workers are typically depicted as workers who have high degree of aptitude, training or experience and are paid for effectiveness of reasoning. They are very much educated, dynamic and capable, mindful of their part and self-esteem, free members of the association, who work with learning and data, as well as on them. They comprehend, characterize, information, movement and obligation. The most noteworthy objective of learning specialists is dynamic investment in information administration forms.

While managing knowledge workers functionality, top management is to be very careful about traits of knowledge workers:

- Knowledge workers understand the work and functionally they do more than their bosses in the most of the cases because of their nature of job.

- Strategic and tacit knowledge is partly or fully subconscious, even knowledge workers may not know about it or may underestimate its importance for organization.
- Knowledge workers are vital for the organization and also work in supporting other work roles.
- Knowledge worker, who possesses the knowledge as his asset, not the organization.
- When knowledge workers left the company, his knowledge goes with him.

Knowledge workers understand manage their day to day affairs strategically and in dedicated manner. Their positions need high level of job creativity, innovation and inventions in working fields and problem solving skills nature. It says all why, knowledge workers don't like to be driven by others rather they driven the different aspect of business.

Knowledge workers constitute a particular group of employees. In information based economy their insight, aptitudes, dispositions and practices, progressively decide the achievement or disappointment of the associations in which they work. A standout amongst the most vital elements that decide the information workers commitment to the achievement of the association is their sense of duty regarding work, which is from one perspective a component credited to learning specialists, then again – the test for associations and administrators. Knowledge workers are as the specialist who applying, showing, sharing, examining, arranging, assessing, recovering, putting away and securing data with the objective of settling on choices and conveying administrations. These exercises decide parts they play in the organization, for example, controllers, aides, students, linkers, organizers, coordinators, retrievers, sharers, solvers, or trackers.

For good level of knowledge workers management, engagement is the key. With the sense of engagement they get more joy from their work, have a feeling of acknowledgment of their potential, feel that they are accomplishing something imperative for themselves and the earth, understand their thoughts and expert aspirations go past the normal systems, attempt challenges, enhance working strategies and enhance the association and in addition effectively shape the workplace. They appreciate better physical and psychological wellness, are happier with their life, feel

positive feelings all the more regularly, and their confidence and feeling of importance increment.

A good level of Knowledge worker's management leads to:

- Increased operational execution;
- Higher benefit development;
- Reduced dependence on money related impetuses for employee engagement;
- Reduced wiped out days and non-appearance;
- Stronger ministers who prescribe the organization's items and administrations;
- Reduced enrolment costs because of higher standards for dependability;
- A solid people mark which draws in predominant quality competitors and lessens enrolment costs;
- More dedicated staff who readily go past their activity determination to convey extraordinary administration to profit the business;
- Sustainable change because of better recognizable proof and arrangement with the requirements and inspirations of representatives;
- Greater comprehension of the activity, the group, the association and how their part adjusts to its technique;
- Realization of business systems by enabling individuals.

For better understanding of the topic and to achieve the objectives of the study, it is divided into three parameters named as:

Knowledge worker's engagement, retention and knowledge worker's management strategies. The brief introduction of these aspects is as under:

1.10 KNOWLEDGE WORKER'S ENGAGEMENT (KW ENGAGEMENT)

Knowledge Worker's (KW) engagement is a work place activity resulting in the appropriate work conditions for all the employees of an organisation to provide of their best efforts each and every day, highly committed to their organisation's and personal targets, work ethics, values, highly motivated to contribute to the success of the organization. KW engagement is about being trusted, empowered, valued, focusses on clear goals, career paths, encouraged, having constructive feedback continuously, working as a team with dignity, supporting and enhancing new techniques , skills, training, recognized for better productivity and task accomplishment.

The level of engagement is rely on trust, motivation, recognition, equity, role , work assignments clarity, right compensation structure, integrity, two way communication and commitment between an organisation and its employees. It is a proactive approach that enhance the chances of organizational success, contributing to organisational and individual productivity and well-being of every member. Employee engagement can be measured in terms of from poor to great level. It can be created, nurtured, enhance and dramatically improved but on the same time it can flew away if not managed accordingly.

1.11 KNOWLEDGE WORKERS RETENTION

KW retention is the capacity or ability of an organization to hold its employees. For example a retention rate of 90% means the organization kept their 90% of employees in given period of time. Employee retention is about to the different practices and policies which motivate the employee's stay back to an organization for a long time. Every organization makes huge investments in terms of time and money to develop a new employee, turned him into a corporate asset and bring his competencies at par with the current employees. The organization suffers with loss when the employees leave their current job assignment once they get fully trained. Employee retention takes into different policies and procedure and correctives measures, so that an employee stays in an organization for longer period of time.

It is the goal of an organisation to retain their talented workforce by various policies such as positive work environment, conducive work culture, competent salary structure, team building, supervisors behaviour, leadership , no communication gap, role clarity, stress free working policies, good leave polices, flexible assignment, non-monetary benefits, health benefits etc.

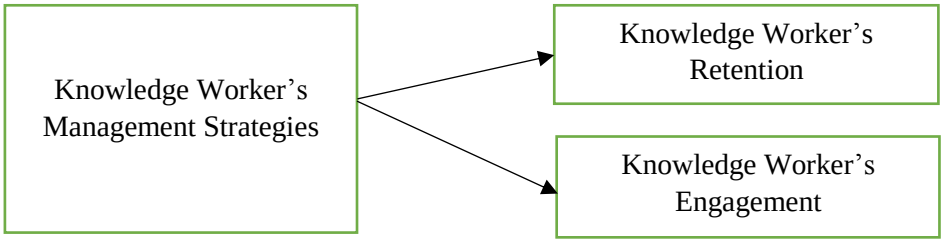
1.12 KNOWLEDGE WORKER'S MANAGEMENT STRATEGIES

It is a fact that knowledge workers execute their work assignments on the base of their intellectual quality and competencies, the top management has to ensure that these intellectual workers remain agile for strategic work, always fit to cope with the current demands of their work profile. Therefore, in contemporary years, the researchers as well as the practitioners and professionals in the strategic HRM area, have focused that knowledge work and knowledge workers must be retained in the organization and should be treated in a way that makes them crucial to the organizational goals. In other

words it be said that the knowledge workers are the key performers for the companies in terms of their profitability. These workers are the corporate asset and can't be replaced by the money, plant, machinery or buildings. The professionalism of these workers is vital for the long terms success for the organization on, therefor top management has to make polices in a way that these workers feel good and strive for the success of the goals of the organization.

To manage the knowledge workers, the management has to be aware by the contribution a knowledge workers provide to the organization, top management has to recognize the contribution of them in task accomplishment. The main factors which affects the management of knowledge workers includes; employers responsiveness and willing to make changes needed to acquire new techniques and skills, leadership development activities, motivation and encouragement by the management to upgrade their current skill set and knowledge, provides flexible work arrangements, Care for well-being, Mentoring relationships going on to build motivation and loyalty, concern about the career development and growth opportunities, planning for right pool of knowledge workers reduce the job stress, provides ongoing developmental feedback to support, Maximizing the value and potential of knowledge workers etc are some the top strategies followed by the top management for knowledge workers management in Indian IT sector. Therefore, it can be said that engagement and retention of KW are not the only factors which affects level of engagement and retention but the top management strategies exercised for knowledge worker's management are having equal importance for understanding in the context of this study. It can be shows in the following manner:

Figure 1.2 Impact of Knowledge Worker's management strategies on knowledge worker's engagement and retention



Designed by the researcher on the basis of literature review

1.13 SUMMARY

After analyzing definitions of the knowledge workers, their characteristics and roles played by them in the organizations are significant. It can be stated that the worker whose main asset is knowledge can be called knowledge workers. They use their knowledge in the enhancement of the productivity of the organization. Knowledge workers has the high level of commitment, special knowledge about the fields, high morale, strategic understanding, decision making skills, information processing, communication level etc. It is concluded from the study that a good knowledge workers management system leads to increased operational execution, higher development rate, and sustainable change management. Knowledge workers plays a very divergent role in the organization by analyzing important information, solving complex problems, studying the trends of business, making strategic alliance with strategic partners, thinking divergently and creatively solve the problems. Therefore these vital employees should be given a free hand in their operation in the organization and on the same time, management has to implement various engagement and retention strategies. However after studying various aspects of knowledge workers engagement and retention, it is also pivotal to know what the knowledge workers think about the management strategies which may be varied from core engagement and retention strategies. The role of management strategies plays a very pivotal role in growth and retention of these workers, therefore top management has to ensure the awareness about the work of KW, their contribution to achieve goals, provide constructive feedback, build up group cohesiveness, flexible work schedules, training and development programmes, job autonomy, encouragement motivation etc. are some of the important aspect of strategies exercise by the management for engagement and retention of knowledge workers.

CHAPTER -II

TREND & SCENARIO OF INDIAN INFORMATION TECHNOLOGY SECTOR

This chapter will, explain the Indian Information Technology sector, background, recent trends, and its contribution to India's Gross Domestic Product, employment opportunities, challenges faced by the industry, trade association roles and future of this industry. The reason for selecting Information Technology sector is due to its major contribution in the GDP of India, a big source of employment from early 2000', a big boost to foreign reserves in India and this sector increased the goodwill of India worldwide in terms of ease of doing business and financial strong nation.

2.1 INDIAN INFORMATION TECHNOLOGY SECTOR

The Information Technology (IT) administrations and IT empowered administrations enterprises in India have turned out to be exceedingly unmistakable hubs of the worldwide economy, drawing in generous consideration from global media and business interest as a prime goal for outsourcing and off shoring. The accomplishments of these enterprises, as well as the current hostile to outsourcing reaction in the U.S. have delivered another worldwide picture of India as a rising financial power. IT sector has come to be viewed as a model for India's future monetary development and improvement, in view of the approaches of advancement and globalization.

While much has been composed about the history, development and structure of India's IT industry, there has been couple of basic examination of its criticalness or suggestions for India's general social and financial improvement. There has been couple of sociological thinks about the 'work' in these outsourcing ventures, or of their generally critical 'asset', the workforce.

Work in IT industry is taking into account the worldwide market as opportunity to societies, and business issues. Before the financial progression arrangement of the Congress Government, (1991) in India, the situation in associations was totally not quite the same as that which now as far as steadiness of workforce. In the 50's and 60s greater government/semi-government associations and not many private players existed. Individuals liked to work in government/semi-government associations, it gave professional stability and nature of work life. The individuals who entered the activity

showcase regularly stayed with one business. In the 70's and later, outside portability expanded significantly representing an incredible danger to the associations. The administration is additionally promising business, helping numerous household players additionally to enter the Indian market. Wilful turnover has presently expanded radically, as the Indian market is opened to remote players too.

The IT sector contributed a noteworthy offer towards the GDP (6.4 percent in 2011, 9.3 percent in 2015, 7.7 percent in 2016) of India is looked with the test of holding individuals as the wearing down rate is high. In fiscal year 2017 the IT sector contributed 7.7 percent to India's overall GDP. According to a current industry particular research completed by the Associated Councils of Commerce and industry of India (ASSOCHAM). (Source:https://www.ibef.org/industry/indian-iT-and-iTeS-industry-analysis-presentation)

2.2 INDIAN INFORMATION TECHNOLOGY SECTOR AND KNOWLEDGE WORKERS

The main body of Indian Information Technology industry National Association of Software and Services Companies (NASSCOM) predicts that the Indian IT sector will grow by 12- 15% in the upcoming 2017. India is the huge sourcing place for the (IT) industry counted to nearby 67 percent of the US$ 124-130 billion market. The industry recruits about 10 million workforce. So talented workforce is required to perform the intellectual work and that is to be managed by knowledge workers.

A very young workforce and its management but Managers has become a challenge for employers. The rapidly changing technology / services / solutions etc. the organizations focusing on ‘outcomes’ and not worrying about the means. Therefore lack of long-term mentoring and coaching approach in most IT organizations are missing Job Segmentation as ‘pure Knowledge’ work or ‘Knowledge + Physical’ or creative work. Therefore there are other issues upcoming regarding their management. Organizations using of ‘employee cost’ – by ‘low cost’ resources to do the knowledge tasks.

The year 2012 was a landmark year – while the Indian IT industry weathered uncertainties in the global business environment, which was also the year when the industry is set to reach a significant milestone – aggregate revenue for financial year 2012 was crossed USD 100 billion. Aggregate IT software and services revenue (excluding hardware) was estimated at USD 88 billion. Milestone year for Indian IT-

Business process outsourcing (BPO) industry-aggregate revenues cross the USD 100 billion mark, exports at USD 69 billion. Within the global sourcing industry, India was able to increase its market share from 51 per cent in 2009, to 58 per cent in 2011, highlighting India's continued competitiveness and the effectiveness of India-based providers delivering transformational benefits. Export revenues (including Hardware) estimated to reach USD 69.1 billion in financial year 2012 growing by over 16 per cent; Domestic revenues (including Hardware) at about USD 31.7 billion, growing by over 9 percent. Software and services revenues (excluding Hardware), comprising nearly 87 per cent of the total industry revenues, expected to post USD 87.6 billion in financial year 2012; estimated growth of about 14.9 per cent over financial year 2011.Within Software and services exports, IT services accounts for 58 per cent, Business Process Outsourcing (BPO) was nearly 23 per cent and ER&D and Software Products account for 19 percent. The industry continues to be a net employment generator - expected to add 230,000 jobs in financial year 2012, thus providing direct employment to about 2.8 million, and indirectly employing 8.9 million people.

As a proportion of national GDP, the sector revenues have grown from 1.2 per cent in financial year 1998 to an estimated 7.5 per cent in financial year 2012. The industry's share of total Indian exports (merchandise plus services) increased from less than 4 per cent in financial year 1998 to about 25 per cent in financial year 2012. While the global macroeconomic scenario remained uncertain, the industry exhibited resilience and adaptability in continually reinventing itself to retain its appeal to clients. Embracing emerging technologies, increased customer-centricity, deepening focus on new markets, adopting new business models are some successful growth strategies followed by the industry. The Indian IT sector has grown at a rate of 12-14 per cent for financial year 2016-17 in constant currency terms. The sector is also expected triple its current annual revenue to reach US$ 350 billion by financial year 2025. (Source: Indian Brand Equity Foundation, 2012)

2.3 GLIMPSE OF INFORMATION TECHNOLOGY SECTOR OF INDIA

The worldwide sourcing market in India keeps on developing at a higher pace contrasted with the IT-BPM (Business Process Management) industry. The worldwide IT showcase achieved US$ 1.2 trillion out of 2016-17, while the worldwide sourcing market expanded by 1.7 times to achieve US$ 173-178 billion. India remained the

world's best sourcing goal in 2016-17 with an offer of 55 for each penny. Indian IT organizations have set up more than 1,000 worldwide conveyance focuses in more than 200 urban areas around the globe. All the more vitally, the industry has driven the financial change of the nation and modified the view of India in the worldwide economy. India's cost aggressiveness in giving IT administrations, which is roughly 3-4 times less expensive than the US, keeps on being the pillar of its Unique Selling Proposition (USP) in the worldwide sourcing market. Be that as it may, India is additionally picking up noticeable quality as far as scholarly capital with a few worldwide IT firms setting up their advancement focuses in India. The IT business has likewise made critical request in the Indian training segment, particularly to engineer and software engineering.

The Indian IT industry is partitioned into four noteworthy fragments – IT administrations, Business Process Management (BPM), programming items and building administrations, and equipment. India has dominated the competition with the most elevated extent of computerized ability in the nation at 76 for every penny contrasted with the worldwide normal of 56 for every penny.

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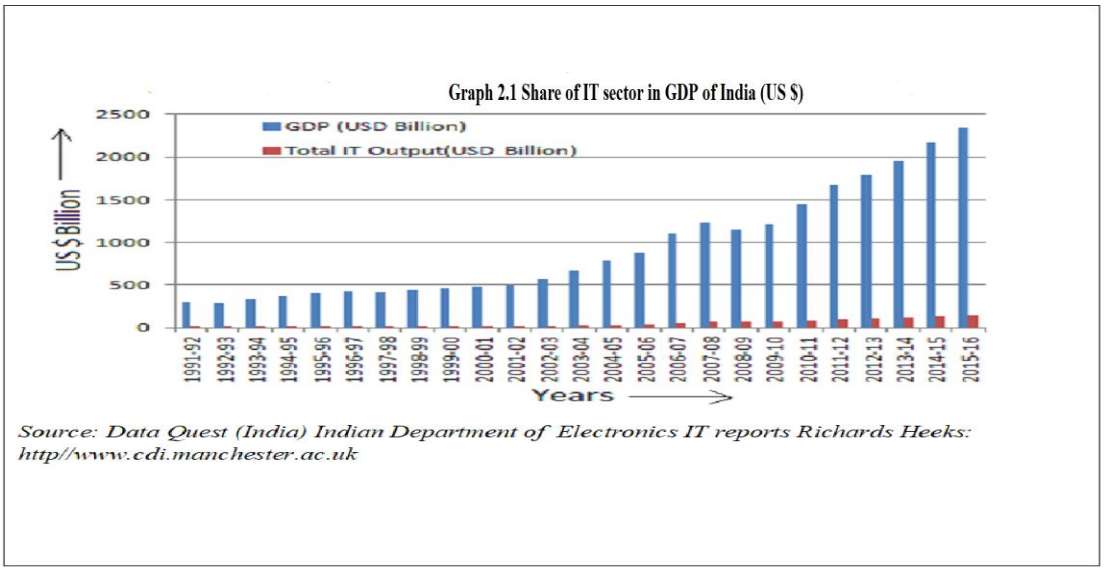
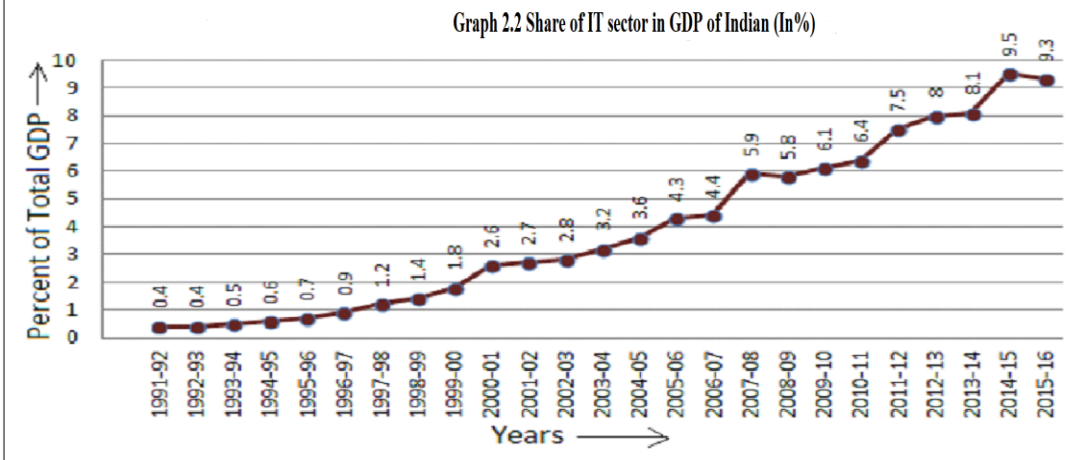
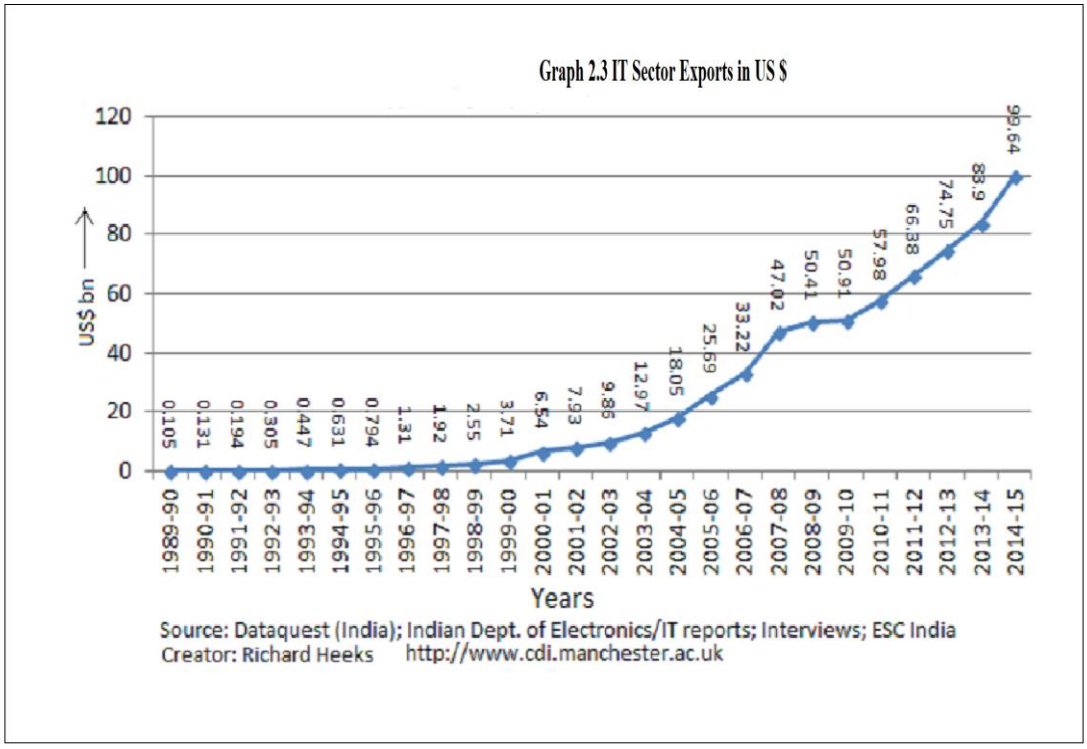
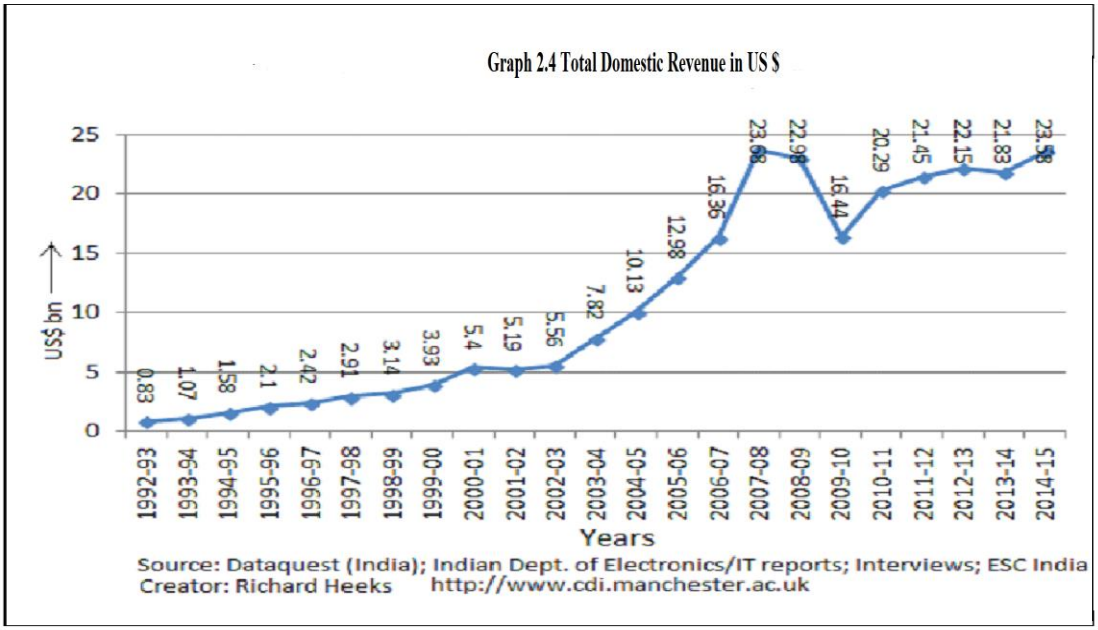
(Source: https://www.ibef.org/industry/information-technology-india.aspx)





Source: Data Quest (India) Indian Department of Electronics IT reports Richards Heeks: http//www.cdi.manchester.ac.uk





2.4 CREATING EMPLOYMENT OPPORTUNITIES

Table 2.1 Employment in IT Industry (In Millions)				
Year	**IT Services**	**BPO Export**	**Domestic**	**Total**
2001- 02	0.16	0.12	0.26	0.54
2002-03	0.20	0.19	0.30	0.69
2003-04	0.30	0.21	0.31	0.82
2004-05	0.38	0.32	0.34	1.04
2005-06	0.50	0.42	0.38	1.30
2006-07	0.70	0.55	0.40	1.66
2007-08	0.86	0.70	0.46	2.02
2008-09	0.90	0.79	0.60	2.29
2009-10	0.99	0.77	0.51	2.27
2010-11	1.14	0.81	0.55	2.5
2011-12	1.15	0.82	0.55	2.5
2012-13	1.30	0.87	0.57	2.54
2013-14	1.5	0.99	0.62	2.79
2014-15	1.72	1.02	0.69	3.18
2015-16	1.86	1.08	0.73	3.47
Source: NASSCOM http://www.mit.gov.in/content/employment				

From the above mentioned table it is clearly stated that from the year 2001-02 the employment opportunities has been raising on a regular pace. From 0.54% in the year 2001-02 to 2.02 in the year 2007-08. The share of employment in IT services, BPO

export and Domestic is raised to 1.14, 0.81 and 0.55 respectively in the year 2010-11. In the year 2015-16 the employment share in IT services reaches to the highest ever rate of 1.86.

2.5 CHALLENGES TO INDIAN INFORMATION TECHNOLOGY SECTOR

At currently there are various difficulties that are confronting the Indian IT Industry. One of the real difficulties was to continue keeping up its astounding execution guidelines. The opportunity has already come and gone to make a situation for advancement in plans of action, biological systems and information that are associated with the IT Industry and could be conveyed for quite a while. The IT segment of India additionally needs to spread the scope of its exercises and furthermore take a gander at the open doors in different nations. The change be that as it may, likewise should be subjective as opposed to simply being quantitative. The ability level of the data innovation experts is one zone that needs change and introduces a lot of test before the Indian IT industry. It likewise needs to co-ordinate with the scholastic circles and additionally other enterprises in India for better execution and enhanced efficiency. The BPO benefit suppliers in India need to change their tasks to a way that is more arranged to the learning process outsourcing.

The IT experts who go for working in the nation are likewise prone to be upset by the enactment as a lot of these experts have been will work in the USA for quite a while. If there should be an occurrence of falling Dollar, the business advantage in India will be lost due to the high pay rates of IT experts. India's cost preference will likewise vanish soon, on account of the high rate at which the wage are rising. Since pay rates have crested, at the point when different divisions offer comparable compensation, the activity searchers tend to alter their course what's more, inclination towards them. There are issues with distinction in time zones including an absence of continuous correspondence since dominant part of group on outsourced ventures are at diverse areas. The quality and skill of new-age Indian Engineers, but those delivered by IIT and a chose couple of Institutions, is dependably a question mark in the universal work advertise. Expanding mindfulness on the dangers to secret information and individual information is another test. At last, the expansion in worldwide rivalry is genuinely testing the Indian IT industry. A few Indian organizations have officially opened their workplaces in different nations where the cost of working together is less expensive. In

not so distant future the IT businesses may migrate to nations like China, Vietnam, Philippines or different nations.

2.6 SUMMARY

This particular chapter builds up that the IT business has been fruitful in India decisively in light of the fact that it has possessed the capacity to tap the current social and social capital – counting instructive achievements, learning of English, and some level of westernized social introduction. The workforce that has been made for the business, and that is its essential asset, is drawn from this social section – a reality that tends to strengthen the current class structure. The white collar class in India is positively extending in size and assorted variety, and is likewise being changed by powers of globalization, and new worldwide ventures, for example, IT are adding to these procedures by giving new sorts of employments for exceedingly taught laborers and pulling at any rate a few people from other social strata into the 'new white collar class'. However eventually the IT business can't be said to have added to defeating the profound social and monetary divisions that keep on describe Indian culture, in spite of its adherence to the philosophy of 'justify' that cases that anybody can prevail in this industry by excellence of diligent work and local insight. Like some other industry, IT industry is likewise about request and supply. At show both go as an inseparable unit. The Indian IT industry has been confronting a few difficulties. However, it remains and will stay focused later on too. A few conceives that the development of IT Industry is manageable. Others think in long haul it isn't conceivable. In spite of the fact that rivalry is required to increment and compensation development gets slower, the Indian IT industry, with its parcel numerous favourable circumstances will stay solid. The PC world is extending and it requires qualified individuals to keep up its movement. India stands prepared to keep up its situation as the best IT specialist organization for a long time to come.

CHAPTER III
REVIEW OF EXISTING LITERATURE

This particular chapter reviews the several research papers and articles which provide the evidence and creates not only a theoretical frame work but also a practical approach for this study. The researcher has studied various research papers in detail related to knowledge workers engagement and retention level in the organizations.

The important research work is available in the field of employee's engagement, recognition and retention in general or other related areas but in Information Technology sector, less specific studies have been found and it is either mixture of another aspects or only one area. About 130 papers have been studied and out of which 77 papers have been found relevant with the present study. In this chapter the literature review has been divided into three segments: Knowledge workers (KW) engagement, retention and management strategies towards KW. The objectives of making segment are to make clarity about the research. After reading various papers and discussions, the researcher has come to know that without taking into consideration management strategies with engagement and retention, no fair conclusion can be drawn about this research.

Knowledge workers engagement and retention is the toughest challenge that organizations are facing in the current era of global business. Employee's engagement, retention and attrition are the whisper words in the Information Technology sector across the globe and particularly in Indian organizations. The Information Technology Industry deploys highly competent professionals who have specialized knowledge at top and operational level referred to Knowledge Workers. Knowledge workers are the vital assets of the organizations due to their greater knowledge and strategic decision making and this phenomenon would leads to productivity and efficiency in operations that enhance long term sustainability. Therefore to retain and to engage knowledge workers are very important for organizations in today's dynamic business environment.

3.1 KNOWLEDGE WORKERS ENGAGEMENT

Employees Engagement is a developing zone of centre for the both researchers and business professionals. Numerous books and articles are published regarding this matter. This pivotal area has taken an attention during numerous conferences, courses,

trainings and workshops. Employee's engagement is of unique significance with reference to knowledge workers whose efforts are directly connected with effectiveness and accomplishment of organisations objectives.

Kahn's, (1990) describe in his study of employees engagement and disengagement at work place consisting in linking the individuals to work stations. The author also postulates different psychological needs conditions, such as safety measures, availability of resources and meaning fullness of work role, required to employees engagement at all levels. As per May, Gilson, and Harter (2004) conclude the term engagement can be condensed as the execution that worker appear in their activity and sort of conduct and feelings they relate to in the organization.

Jeffrey Pfeffer , John F. Veiga, (1999) state in their research about the factors affecting employee engagement as: Selective Hiring, Extensive training Sharing information, Employment security, Reduction of status, Difference, Self-managed team and decentralisation as basic element of organization design. J .W. Jonshon, (2000) concludes various drivers of engagement such as inspiring leader, manager who recognize employees, emphasize quality and improvement, exciting work and opportunity to grow, organizations demonstrating genuine responsibilities to their employees.

Harter, (2003) states that some of the factors responsible for employee engagement such as senior management's interest in employees well-being, challenging work, decision-making authority, career advancement opportunities, clear vision from senior management about future success. May, Gilson & Harter, (2004) states that Job enrichment, Work Role fit, Co-workers relation, Supervisor relation, Co-worker norm, Self-consciousness, Resources, Outside activities are some the vital factor responsible for employee engagement.

Davenport, (2005) defines knowledge workers typically as workers who have high degrees of aptitude, training or experience and paid for effectiveness of reasoning. They are highly educated, dynamic and capable, mindful of their part and self-esteem, free members of the organization, who work with learning and data. The most noteworthy objective of knowledge workers is dynamic investment in information administration forms. A. M. Saks, (2006) emphasizes various factors accountable for employee engagement. Such as job characteristics, perceived organizational support, perceived supervisor support, rewards and recognition procedural justice, distributive justice.

Richman, (2006) suggests that good employee engagement strategies increase work effort of employees, higher productivity Volumes, less employee's turnover and increased customer loyalty and satisfaction, all of them translate into more shareholder value and goodwill for the organization. Jack and Suzy Welch (2006) suggest that employee's engagement goes without expression that no organization, tiny or huge, can win over the lengthy run without energized employees who believe in the charge and realize how to succeed and achieve it.

Robert J. Vance, (2006) explains job enrichment, recruitment by extolling attractive job features, effective employees' selection, training and development, strategic compensation, effective performance management are some of the main factors which influence commitment and engagement of employees.

Gerard H. Seijts and Dan Crim, (2006) states that employee's engagement is the most important issue that is dragging its consideration towards progression of an organization. It has been understood that the organization with exceedingly drew in good employees engagement, leads to success. Konrad, (2006) concludes in his study that power to make decision important to their performance, proper information system, knowledge or enhancing employee's skills and ability, reward system play a big role in employee engagement.

Penna research report, (2007) concludes that benefits and pay, opportunities for self-development, options for promotion in position, effective leadership style, shared sense of meaning at work are very decisive factors of employee engagement. Macey and Schneider (2008) postulates that employee's engagement is comprehended as the degree to which employees are enthusiastic about their work. Engagement of knowledge worker's mirrors their organizations with the association crosswise over three measurements: judicious; indicating how well representatives comprehend their parts and duties, passionate; displaying how much enthusiasm and vitality they convey to work, and motivational; reflecting how well they perform in their parts.

Latusek, (2009) state that the way of life of the organization has huge effect on different parts of its working: institutionalizes individuals' examples of conduct, expanding their consistency and replaces transitory control, communises employee's desires, objectives, expectations and worries and additionally empowers individuals to translate and survey the encompassing reality correspondingly.

Hewitt, (2009) state that the needs of knowledge workers, which prompts an expansion in both their activity fulfilment and their commitment to work. A few needs of knowledge workers are general for all workers (eg. the requirement for security or regard); while others are particular to these specific individuals, or this group of people, shows themselves with more prominent force (eg. the requirement for self-satisfaction). The relationship can emphatically impact the level of specific workers needs fulfilment by moulding the appropriate authoritative culture. S. Rothmann and S. Jr. Rothmann, (2010) states in their study that work role fit, co-worker relation, supervisor relation, resources, facilitative norms, and self-consciousness are important factors for engagement.

According to Towers Perrin Global Workforce Study, (2010) Employees engagement with the organization crosswise over three measurements:

- Rationality which elaborates how well employees understand their roles and responsibilities in the organization.
- Emotional Intelligence which shows how much passion and energy they bring to their work roles.
- Motivation which states how well employees perform in their working roles. Full employees' engagement presents an alignment of maximum job satisfaction and value.

From the perspective of managing knowledge workers, it is worth considering whether the employee's engagement is a steady element, or is it conceivable to impact it? Numerous managers are persuaded that the level of worker commitment is his steady inclination. Making such assumptions states that practically speaking a few employees have higher power of this element and will dependably give of themselves more than different workers, who will give of themselves less independent of choices and move made by the administrator or the business.

Bernstein, (2010) state that knowledge workers' engagement has been distinguished and assembled in particular regions, as takes after:

- Working conditions – hierarchical conditions, specialized conditions, work performed versus capabilities;
- Acknowledgment - seeing and acknowledging representatives triumphs, considering worker's sentiment in proficient issues, interest in basic leadership;

- Worry about representatives - work-life adjust conservation, representatives' suspicion that all is well and good in the association, pay level versus commitment to work;
- Trust - regard for employees, freedom in choosing how to work, abilities of bosses and associates;
- Collaboration - criticism at work, stream of data, air at work;
- Advancement - chances to learning and abilities advancement, testing work (requiring constant change of specialists), advancement openings;

Klynveld Peat Marwick Goerdeler, (2011) states that for knowledge workers engagement require the reception of two fundamental presumptions:

- Employee's engagement is gradable that can be of high, medium or low level.
- The level of the worker engagement can be affected, what implies that engagement can be a subject of administration. Justifications for administration of knowledge workers engagement are benefits it conveys to employees and organizations in which they work.

Rama J Joshi and J.S. Sodhi, (2011) concludes that job content, compensation of financial benefits, work/life balance, top- management, employees relation, scope of advancement, career growth, team orientation, welfare facilities, union management affects the level of engagement.

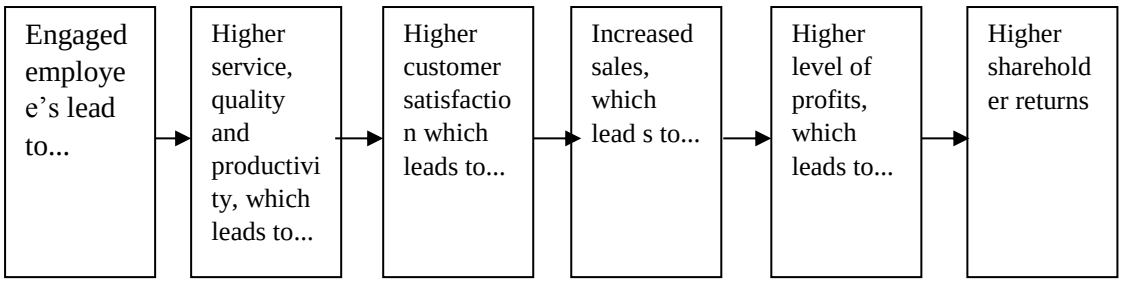
Klynveld Peat Marwick Goerdeler, (2011) records the accompanying advantage of a knowledge worker's engagement:

- Increased operational execution;
- Higher benefit development;
- Reduced dependence on money related impetuses for employees engagement
- Reduced wiped out days and non-appearance
- Stronger managers who prescribe the organization's facilities, policies and administration.
- Reduced enrolment costs because of higher performance standards and better working facilities
- More dedicated staff who readily go past their activity determination to convey extraordinary performance to profit the business;
- Sustainable change because of better recognizable proof and arrangement with the requirements and inspirations of representatives;

- Realization of business systems by enabling individuals.

T. Walk, (2012) describes it in different words; one might say that employees' engagement cares of something that individuals anticipate from an association when they begin with their new activity. The workers want to work in ought to be proactive and inventive with the goal that they can be engaged, energetic and need to be a piece of it. Figurska, (2012) concludes in his study that authoritative culture is additionally an essential wellspring of data and information about the organization and its working. In organizations fabricating their upper hand on learning, organizational culture shapes supposition about what information is and what information merits overseeing, intercedes the connections amongst individual and association level learning, makes a setting for communication that decides the esteem got from learning, shapes the procedures by which new authoritative learning is caught, legitimated, appropriated, and in addition shapes the association's response to new information.

Figure 3.1 Engagement-profit Chain



Source: Kruse, 2012

Sundaram Priyadarshinie and Radhika Bhutani, (2013) suggest that employees engagement initially abandons the saying that no organization, small or big, can prevail upon the long keep running without engaged employees who believe in the mission and see how to accomplish it. S Robbins, (2013) concludes that engaged employees dependably prompts better efficiency in an organization. Moreover efficiency does not exclusively intend to enhance the production but rather it additionally refers to smart working of individuals and consequently expanding inventive practices in organization. S. Dwivedi and S. Kaushik, (2014) concludes a study on BPO division, it was discovered that employees engage themselves more, when they get a reasonable delineation of work as fun and workplace as yet another campus. Sundaram and Bhutani, (2014) states that job content, interpersonal relations, career opportunities,

objectivity, benefits Pay affects the level of empowerment of knowledge workers engagement.

Mauborgne, (2014) postulates that an engaged employees indicates proactive response towards the challenges and threats, carry on in more persistent ways, expands his extension at work and is more prepared to adjust the changes. C. W. Jeung, (2014) states in relation to the work related context, stated that employees engagement as a "research based, measurable, psychological and cognitional state like aspect that delivers a vital impact on employees performance and improvement through utilizing the positive aspects of individuals for longer periods of time.

G. J. Hotz, (2015) concludes that reward framework has a dynamic participation and role in employee's engagement and throughout the years. The other non-financial benefits are additionally given in order to motivate them for higher execution, higher engagement and duty. R.K. Jaiswal, S. Dash, J.K. Sharma, A. Mishra, S. Kar, (2015) concludes a study on army personnel, it was revealed that better career path and good opportunities like promotion , salary enhancement, recognition, new challenging task, autonomy and key responsibilities, leadership options leads the employees to engage more precisely.

Hammad Alshammari, (2015) emphasizes that co-worker relationship, rewards & recognition, working conditions, work-role fit, career advancement, job satisfaction affect the level of engagement. Neha Gupta and Vandana Sharma, (2016) concludes that Individual outcome and achievements as self-efficiency, self-Control, health and wellbeing, less turnover, less absenteeism, positive attitude motivates the employees to engage at highest level, in the same time organizational outcomes as Productivity level, profitability ratios, employees turnover, optimum utilization of resources, employer recognition, and customer loyalty improves the sense of belongingness.

Cambridge Dictionaries Online, (2016) describes the employees' engagement as the inner state of being involved and engaged with something, and especially in relation to organizational work, as the process of motivating and encouraging employees to be engaged and interested in the work of an organization diligently.

I. Gözükara and F. O. Şimsek, (2016) state in their study that the meaningful employees engagement can only be fruitful if the responsibility sharing exist between employees and their supervisors/managers over important issues is genuine and the employees saying, i.e. the options of employees to have a view about decisions affecting their

nature of work is permitted in the organizations. The freedom to make decisions is one of the vital factor of managerial capability which is positively associated employees engagement and affects it in a good manner.

Machuca and Mirabent, (2016) research shows that work life balance plays a huge role in development of employees' engagement. It brings the autonomy in work life, which is a fuel that empowers the work and its balance. Power to choose, how to do, when to do and where to perform the work role provide a sense of belongingness to the employees, its work like a s driver which induce the employees to perform tasks with sense of authority and autonomy.

Arti Chandani, Mita Mehta, Akanksha Mall and Vashwee Khokhar, (2016) the findings shows that various factors have been examined and discussed of employees engagement at macro i.e. at organisational level and micro level i.e. at individual level. These differences in factors may arise due to variations in individual and job nature and characteristics, gender, ethnic groups etc. Suggestions represented in this study include various employee's engagement approaches for new employees like good induction programs, multilevel training and development programme, refresher programme and giving them a realistic job condition preview.

The findings of this study will be very beneficial to any organisation, irrespective of the type of business activity they are indulged in, to make strong employees engagement policy with mix of all these vital factors of employee's engagement. Top managers can reframe the work and policy matters on the basis of the factors presented those are crucial of employees engagement at both level, it will lead to happy employees which result in good level of engagement with organization.

3.2 RETENTION OF KNOWLEDGE WORKERS

Retention of employee's refer to the ability and competency of an organization to hold its employees within the organization. The companies implement various policies and strategies which let the employee's to stick to the current organization for long period of time. Every concern invest huge on its employees to make him/her a corporate ready material. The organization is completely in loss, when the employees leave their job once they are fully trained.

Graddick, (1988) state that everybody needs change and improvement in life, particularly, the knowledge workers. Knowledge workers are phenomenal and they anticipate in the administration and have the capacity to perceive every single diligent work and appropriately get ready for vocation advancement. Other than attributing their individual endeavours for the development of the organization, knowledge workers expect that their activities encounter ought to challenge and furnish them with the essential open doors for profession improvement.

As per Lawler, (1990) states that the simplest method for keeping up and expanding the dedication level of employees is by offering prize and acknowledgment, rewards, growth, co-ordination etc. By and large, employees hope to be acknowledged for endeavours inputs towards the development of the organization and the least demanding method for valuing them is through embracing reward methodologies that mirrors their general execution in the organization.

Williams and Dreher, (1992) emphasise that wage is key powerful factor for both pulling in and holding knowledge workers and they likewise assume noteworthy part on the enlistment procedure. Accordingly, it will be deduced in this feeling the reward and acknowledgment settings of an organization impacts workers' dedication, as it were, as in the more positive such framework is, the more steadfast employees will be for future. Greenhaus and Callanan, (1994) concludes the level of relationship that employees keep up with their organization and management has a direct effect on their maintenance in the organization. This is on the grounds when top officials give workers required backings, they are opened to impart and take part in remunerating with these representatives, and such will diminish the level of employee's turnover since they turn out to be more occupied with the association.

As per Cable and Judge, (1997) workers job dedication and determination strategy might be founded on the degree that they can have the capacity to adjust their individual objectives to that of the organization and perceive the need to build up the organization and also apply essential endeavours over the span of making such needs a reality. Along these lines, it can be seen that employees esteem and acknowledgment of their activity settings impact their general execution in the organization. This is on the grounds when an employee's perceive their activity settings and adjust them to their individual objectives for self-realization, they will have the capacity to work towards the corporate development and furthermore be more faithful to the organization.

Becker et al, (1997) states that HRM practice aspect, the knowledge workers perspective indicated the unique features of so called knowledge workers, suggesting knowledge workers to be regarded as privileged group of workers who are termed as the main asset of the productivity and competence of an organization for longer periods of time. Therefore, more focus should be laid on the recruitment, training, development, retention and engagement of knowledge workers.

Drucker, (1999) the study shows that the most vital asset of a 20th century concern was its production capacity, Volume, equipment's and forecasts that the most important strength of a 21st century organizations would be its knowledge workers and their productivity, decision making and non-routine function for gaining competitive advantage. He was on the spot knowledge workers who become the crucial key to an organization's competitive advantage and productivity. Knowledge workers use their high level of expertise, quality education level, and work experience to create, share and apply knowledge in their job assignments so that they can contribute to their organizations. The count of knowledge workers has enhanced because of new industries of knowledge management, creation and production within the emerging economies, new technology driven and highly automated industries minimize the requirement for routine work and a more customized market.

Scarbrough, (1999) concluded that Knowledge workers utilize their skill set, education level or working experience to generate, share the knowledge or apply knowledge in their work roles, so that they can contribute and devote to their organizations. The work of knowledge workers is non-routine, intellectuality to rectify new problems in day to day affairs, make strategic decisions and fulfil the needs of customers and other stakeholders concern to the organization.

Patriota, (2000) postulate in his study that good HRM practices and their role in organizational functioning and perceived support from organization is the key to employees engagement and retention, this study created a model that was explored and analyzed through various case studies. The results interestingly conclude that salary and the relationship between Research & Development professionals and employees indicates to be relevant in the process of retaining and engaging key talent. There are other crucial indications for the top management style signalled to be a decisive factor for the productivity and efficiency of such HRM practices in creating job satisfaction for retention of employees.

Bussin, (2002) conclude that the issue of increasing value of retention and increasing turnover has become very important in organizational working life. Employees retention schemes attract and they are helpful in retaining key workers for a longer time and crucial for organizational competency and productivity. Newell et al., (2002) focus on the significance and vitality of the knowledge workers competencies in strategic decision making and analysis of required skills which could be generally employed with technical, informational, marketing and financial perceptions. This point of view reflects the significance of economic and monetary worth that could be created and enhanced through the creation, application and implementation of knowledge base in a customer centred economy.

Zhao et al., (2003) states that the economic reasons are possibly the major factor that leads to employee's attrition. They have used the economic model to anticipate the employee's turnover in the market. Some factors like socio-economic profile, level of economic development, condition of employees market, structure of employment, opportunities for getting jobs, position of organization in the market, enterprise goodwill, communication level, accommodation facilities and other welfare schemes for employees, education and medical benefits, quality of work life and so on so forth, all have a major influence on the employees turnover/attrition.

Horwitz et al., (2003) reveals that recruitment/selection and retention of knowledge workers is usually worried with shortage in the supply of knowledge workers, tough competition for knowledge workers and high reemployment costs hinder the organizational productivity. Robertson and Swan (2003) concludes that knowledge-concentrated companies may intentionally create a working culture aspects with ambivalence to successfully balance the prediction of attrition from the key employees side and the requirement for control from the top management.

Margie Sutherland and Wilhelm Jordaan (2004) states that one of the major aspects of knowledge workers is their high level of productivity and mobility. The cost of key employee's attrition /turnover of these highly skilled resources are high in monetary and non – monetary terms. Therefore there is an urgency to figure out what are the major factors are and they decides the retention intentions of knowledge workers. The study comprised of 306 knowledge workers. Those were in full time employment representing a wide range of demographic profiles. The results conclude that job satisfaction and commitment to organization do not anticipate knowledge workers prospective length of service. The factors revealed were nature of job, boost behaviour,

peer relations, pay structure, promotion opportunities and overall satisfaction were the major factors which affects the knowledge workers retention.

Jamrog, (2004) suggests that shortage of good working skills of knowledge workers may wake for different reasons. Firstly, knowledge workers are generally owns high skills and highly educated and it takes more time to harvest and develop such a specific and efficient taskforce. Secondly, the urgency for knowledge workers has enhanced dramatically and dynamically over a period of economic and industrial development.
Davenport, H. Thomas, (2005) concludes that Knowledge workers are those workers whose main asset is knowledge and strategic decision making. Examples consist of software engineers, physicians, pharmacists, architects, engineers, scientists, design thinkers, public accountants, lawyers, and academics, and any other non-routine workers, whose job roles requires the one to think for a living always. Knowledge workers on an average spend 39% of their job time exploring for relevant information. Knowledge workers are also often worked from their supervisors, working in different departments and time slots or from virtual places such as work at home. As productivity increase their significance and dependability on information technology, the number of areas in which knowledge workers functioned has enhanced dramatically and dynamically.
Haesli and Boxall, (2005) examine and explore the association between knowledge management and human resource management practices. The organization that implemented personalization knowledge management policy is by using a society based approach to create and develop a society to distribute mutual cognizance, individual knowledge and make efforts to retain their best employees for long time.

Huang, Lin, and Chuang, (2006) conclude that particularly now all information and data are not fixed any longer, they are uncovered to the world. A brilliant knowledge workers may have contrasted their present advantage with the others. This is the most compelling variable with regard to drawing in and holding knowledge worker's since, it is an immediate method for estimating development for each person what's more, the want of all employees is development from the monetary sense. As far as maintenance, the need to remunerate performing employees abundantly as their yield characterizes depends on the understanding that they will be energetic about the organization for such endeavours and turn out to be more steadfast. Furthermore, the cost of holding workers

are much lower when contrasted and the cost of enlisting and preparing new arrangement of representatives are to build up a similar level of aptitudes that the more seasoned ones have.

Garg and Rastogi, (2006) emphasize that preparation furthermore, improvement programs such as, bonus, leaves, compensation structure, job autonomy etc, are important to expand the general competiveness of the organization since employees are outfitted with new and propelled aptitudes all the while, and such abilities will build their general occupation conveyance with an ensuing increment the execution of the organization.

As indicated by Shuaib, (2006) shows that good top management policies and HRM practices regarding knowledge workers with the mean to build their retention rate include:

- Design work (collaboration)
- Having the expert and self-sufficiency at working environment
- Loyalty to the association
- Training and Development
- Motivation (focused prizes, extra bundles and other Applause)
- Communication channels
- Monitoring and assessment
- Balance work cycle

Bhatnagar, (2007) conduct the study to investigate the key talent management strategies and its relation to levels of employees engagement. The results are in the direction that was expected. The outcome of the study stipulates low level of employees engagement scores at the beginning of their respective careers, generally at completion of 15 months with the concerned organization. High factor scores at earlier stage of employment are expressive of high employee's engagement levels, but the observation data indicated that this may mean high job and organization loyalty, but only for a shorter period of time. In the second stage factor loadings reflects three major factors, like of overall culture of organization, career planning and growth along with monetary and non-monetary benefits and support from organization.

Xanthopoulou (2007) concludes that employee's engagement is a strong and vital element for organizational performance and productivity. It could lead to overall success, as it seems to have a notable prospective to affect employees retention in long run, employees loyalty, efficiency and productivity level , and also with some link to customer and vendor satisfaction, organizational goodwill and the overall stakeholder value and wealth. The findings of this research advocates that social exchange theory (SET) could be used as a conceptual substructure in understanding the build-up of employees engagement. It illustrates that the employees who have perceived organizational and support from the co-workers are more likely to requite with high-level job and organization engagement. Employees who are provided with sufficient development options like training, skills and learning are more likely to be more engaged and attached in their work role and organizational roles and would pay back with greater organization engagement and commitment. Therefore engaged employees have positive and motivated work and personal behaviour, attitudes, good intentions derived from a high level mutual understanding and relationship with their peers and their supervisor.

Kelley, Blackman and Hurst, (2007) shows the emphasis on try to obtain and identify the relationship between learning organizations and retention of knowledge workers in IT companies. There are majorly nine facets level of job satisfaction, comforts, work challenges, reward, recognition, employee's development, relation with peers, resource adequacy and allocation and promotion opportunities.

Nancy R. Lockwood, (2007) concludes that those days were out when employee's retention was not a key source to reach success, new era now demands fully engaging and retained employees. The need of the hour states that capturing their minds at every move of utilise work lives. Employee's engagement does not exclusive results into higher productivity, talent retentiveness and enhanced loyalty but also it can convey client spirit and reputation of organization.

Landsman, (2007) also has consider the supporting family and child welfare to increase employee's retention. This study concluded the implementation of a combined funded family and child welfare training initiative designed and administered to improve employees retention on large basis through strategic planning, developing, implementing, and evaluating a dedicated training program in a Midwestern state. The distinct to this collaborative effort was involving all family and child welfare officials in identifying and assessing needs, main elements, developing competencies

holistically and conducting self-assessments programmes. This approach suggests and argued, that individual workers are affected and influenced by the environmental factors in which the organization exists and operates. Social exchange ideas and views like of: intra-organizational relationships, such as those between employees and their supervisors. Empowerment is described as a multi-level element, applicable at the individual, organizational, and community levels for good level of motivation which leads to commitment and retention. Sociological research on job roles and organizations has made significant contributions to understanding the modes in which organizational structures influence the level of job satisfaction, level of commitment to the organization, retention and intentions to stay longer periods of times in the organization

Benson and Brown, (2007) suggests that the knowledge workers could leave the present position in the organization because they sense that the top management don't acknowledge their hard works and achievements. This negative response would influence them to feel priceless, in this manner, they may have the prospect of moving to other association who truly esteem and welcome them more than the present one.
Benson and Brown, (2007) concludes that knowledge workers has an essentially higher sense of duty regarding the organization than different workers. Their goals are so much high that require commitment, hard work and dedication. These workers will stay for long time if organization provide them a sense of job autonomy, free hand on decision making, adequate compensation and conducive learning environment.

Cheese et al., (2008) states that retention of knowledge workers becomes more crucial and vital for Organization in current span of time. The biggest challenges regarding the retention of knowledge workers is full integration, engaging and motivating key talent to give of their best of working efficiency. The most talented and smartest employees are most likely to evacuate, this situation results in an organization losing its key talented employees. As a result of it, the organization bearing several costs, some of which consist, the costs related to, advertising, recruitment, selection, orientation, bonuses schemes, relocation and training& development .
Mohammed Ali et al., (2009) states that the organizational pool of knowledge and its employees merge through collective conception among employees of the organization during the phase of performing the assignments at their work place. The organizational

knowledge is the ability that employees of an organization have created and developed to draw divergence in the particular concrete contexts.

Perryer, Jordan, Firns, and Travaglione, (2010) states that the cost of a worker who left the organization is around 3 times the pay of the person. The normal turnover may cost in a scope of 1.5 times a worker's yearly pay. Organizations additional cost will bring about on enrolment what's more, choice process, reassigning workloads, lost authoritative learning and preparing. In this manner, employee's retention is critical to the business and association. Delfgaauw and Dur, (2010) stated that good management practices in the organization motivates the employees to do well. Work culture can provide specific situation and ground to self-direction and inspiration of workers to increment execution level and more support.

Markos and Sridevi, (2010) suggests in their study that employees engagement is a big factor that adjoin nearly all the branches of human resource management and their policies. If every Policy and ingredient of human resource are not well addressed and accompanied with proper reciprocal based approach, employees would fail to work with full integration and dedication and not able to engage fully themselves in their working roles can be lead to mismanagement and employees attrition.

Raveesh et al., (2010) concludes in their study that employee's engagement has become a critical and vital element in organizational business and its success. With the enhancing consciousness that the greatest wealth of any organization is its human resource. Organizations are now setting up and turning to good HRM practices. Organizations are setting up strategic schedules for the enhancement and betterment of employees' engagement and organizational commitment. In addition to this, the creeping need for work-life balance and the changing environment and its relationship between employers and employees, the technological advantage and advancements, are among the driving factors behind the demand for employee's engagement.

Sharma & Raina, (2010) conduct a study that was based on 151 sale personnel in a private concern described that have opportunity of good career which is important factor of employees engagement. If the employees have a bright chance to develop their set of skills and add some technical aspects in their career in an organization, it will lead them to engage in organization for longer periods of time.

Gallup, (2011) shows that only 12 percent of highly talented employees are globally engaged with their companies. Furthermore observation from research indicated that for instance, in Japan the level of employees engagement is as low as 10 percent, while the level of disengagement of employees are on higher side of high as 49 percent in India. Nation-level deviations such as these are likely due to variances in culture, ethic -values, power and politics, management/leadership styles, individual level differences, group and motivation policies etc.

C. Kelliher and J. Richardson, (2011) concludes that the changing nature of work and its context needed a positive move from fixed knowledge and skills to highly dynamic flexibility and continuous change where long term employment relationships are few. For achieving this, employees require collaborating and adjusting and becoming important part of vital virtual teams and even adopt several concurrent job roles which can have notable effects on employee's engagement and warmth of belonging to a team. Taheripour, (2011) concludes the trust as factor of HR's procedure and hierarchical culture. It can be foresee a critical level of changes in knowledge workers upkeep and maintenance. The level of trust plays a good role in relationship between employees and employer which decides the level of retention.

K. A. Merchant and W. A. Van der Stede, (2012) concludes a research paper that the rewards, recognition and growth must be valued and gained by the employees aiming to the employees different preferences and choices based on the organizational level and individual level. The package of potential monetary and non-monetary reward should be made with planning and implemented and its impacts have to be monitored. Paton, (2013) states the urgency of knowledge workers faded the need of manual workers. It is possible because manual workers utilize their skills and abilities to execute routine job tasks which do not need constant and creative problem solving and decision making options. On the other side, knowledge workers is only important if he possess his knowledge as his asset, to contribute in the success of the organization he needs to penetrate relevant information with strategic decision making and creative problem solving skills and proactive reflection which makes the knowledge created inseparable from the individual. The knowledge workers must be able to act with autonomy in power and decision making and manage himself and others to strive for the good of the organization with help of knowledge.

H. Aguinis, et al., (2013) states in the research that in today´s tough and competitive business environment an organization cannot just rely on buy the good competence workforce and expect them to work hard and Stay for long time within the company. Monetary and non-monetary rewards can be powerful tool to put them charged but may not bring the expected outcomes if not being properly designed and implemented.

Aiza Hussain Rana, Abdus Sattar Abbasi, (2013) analyze the influence and impact of talent management and employees turnover intention on organizational efficiency and productivity in IT/telecommunication sector of Pakistan. It is concluded that by minimizing and employee's turnover intention organizations efficiency can be improved and enhanced. The results of research shows quite interesting aspect of talent management which shows inverse relationship with organizational efficiency in IT/telecommunication of Pakistan. The finding of the study reflects that talent management often elevates employee's turnover intention and maximizes the organizational efficiency. IT/telecommunication of Pakistan requires minimizing employee's turnover by optimizing the talent properly to enhance organizational productivity.

Kanwal and Muhammad, (2013) states that this study was based on the retention level of employees in banks in Pakistan. The Research emphasizes on the various factors like the bonus schemes and rewards and recognition, level of satisfaction of employees with the job, sessions of training as a career growth, team work and co-ordination within the organization are the major contributors towards the employees' retention in an organization. It is extracted that training and development activities has a huge impact on the level of employee's retention in banks. Other elements that have been itemised in the review of literature had a meaningful effect on the employee's performance. Therefore it is postulated that both the employees and the management should work in tandem and like a team and had an effective and efficient co-ordination with each other while executing the tasks.

Mathur, Atul and Agarwal, P. K., (2013) study analyze the impact of employee's retention strategies on turnover in sugar industry in India. The emphasis of this research was on impaired turnover. The variables such as welfare schemes, overall satisfaction and organization working culture, which are bonded with the employees turnover and intentions of the turnover as well. These are also explored and analyze as an ingredient

of this study. It was revealed that the vital factors for leaving the concern by employees were mainly, poorly administered compensation structures and lack of good working condition. As per the research employees retention strategies have direct relationship with employees' turnover. The researcher concludes that by using various efficient HR practices like effective compensation structures, good performance appraisal schemes, training and development facilities, employees feedback, assigning of competitive work with autonomy, good working culture and conditions, welfare activities can raise the employees retention.

Balakrishnan and Masthan, (2013) conducts a study to explore the drivers of the employee's retention and also analyze the relationship between employees engagement and employees retention. It is observed and analyzed that employee's engagement forward to the level of commitment and psychological bonding which reflects in the results of high rate of employee's retention low rate of employee's attrition. The Statistical methods in the study executed in the study, confirm that the level of employees retention can be enhanced by focusing on non- financial motivating drivers of employees engagement like good communication level, rewards, recognition and growth, supervisor relationship, work engagement, working conditions, culture for work, team work and role specification.

O. D. Kwenin, S. Muathe, et.al., (2013) shows the impact of employees reward & recognition, job satisfaction level, human resource policies and strategies on employees retention in Vodafone Ghana Ltd. The outcomes postulated that organizations with a policy of equitable reward system lead to fair implementation of employee's retention. The results shows that level of job satisfaction and commendatory human resource policies and strategies have positive influence on retention. The study also extracts that employee's job satisfaction level reflects a strong sign for employee's retention. Accordingly, the research suggested that top management of the organization should induce more intrinsic values in the job roles to influence them to more favourable for the employees to stay for longer periods of time. Human resources policies and strategies were also explored and identified to link directly with employee's retention.

Appiah, A. F. and David A., (2013) explains that human resource management activities plays a crucial role in employees retention. This study focuses on activities

that are commonly applied in the mining industry in Ghana and to explore their impact on employees' retention. The principle findings of the research were that mostly of attrition intentions within the organization were inferable to human resource management and its policies. Employees training and development programmes, clarity of communication and information sharing within the organization, health and safety of employees, welfare schemes, incentives and rewards, compensation structure and level of job security factors were very vital in accompany about employees turnover intentions within the Ghana mining industry. The study furnish in understandings into the effects of human resource management policies and practices on employees intent to leave the organization.

R. Lakshmi Devi, R. Amalraj et. al., (2013) aims to explore and understand the employee's turnover ratio in Indian pharmaceutical industry. It is analyzed that the mean of the pull factors was greater owing to greater turnover intention of the employees to leave. In this research, factors are split into two groups using organizational congregate method namely push and pull retention factors. The push factors are explored in case study were mainly: Health facilities, family issues, pursuance of higher education facilities for children, behaviour of immediate boss, conflict between employees and management, encouragement and motivation of fair work, size of the concern, worth of job and social status. The pull factors include, high salary expectation, promotion opportunities and goodwill of the organization was the most vital reasons for which the employees leave. Family related issues are the most crucial push factor inducing to employees quit.

K. Shukla, K., Somesh and Deepti Sinha, (2013) devotes to comprehend the crucial matters related with the employees retention of the pharmaceutical employees in Uttrakhand India. The objective of the study is to explore the major reasons of the level of employee's attrition. The study also explores the impact of HR policies, compensation and rewards, pressure of work and relationship with the superiors and colleagues employees' retention. It is extracted that due to higher expectations between employees at all management levels, most of the employees wish to have an enhance quality of work life and personal balance with the job.

Uma Narang, (2014) the study is aimed to analyze the influence and impact of HRM practices and policies like employees career development opportunities, boss support, working environment and culture, rewards, recognition and growth and work-life balance policies on employee's retention in the banking sector. The retention of talented employees has been shown to be significant to the overall development and the achievement of the organization's goals and objectives. The outcomes of the research study postulates that there is a strong relationship between the employee's retention and the HRM practices and policies. The practices of career development option, rewards for good work done, work environment and culture revealed the highest mean values in relation to their perceived level of employee's retention with the organization. It is recommended and suggested that organizations should procure their employees with the best career development and growth opportunities, good working environment, working culture rewards, boss's support and work life balance.

Yiu Lichia, Saner Raymond, (2014) concludes that studied HR function of a survey of employee's attrition in Indian organizations and describes the possible tactics adopted by Indian concerns to counter strike on costly employee's turnover. Higher employee's attrition rate can be reduced through the competent and efficient compensation structures. They postulates that Indian organizations should do more focus to build and strengthen the relationship of internal networks of co-workers and individual job satisfaction level and commitments to organizations and to safeguard talent retention rate through holistic development and career succession planning.

S. Batty & Dorance Jeen, (2014) aims to the components which may be the possible rationale for an employees to evacuate an organization. The intention of employee's turnover and its impression on organizational results are inspected and that is acquired by questionnaires from the middle and lower level employees in selected organizations over a period of time in retail stores at Bengaluru. With the help of econometric analysis, it is revealed that employee's turnover intention has affected attrition elements such as Work Life Quality, growth of career, working schedules, personal factors, and relation with internal matters like of behaviour of co-worker, welfare schemes, working environment and salary structure. The presence of these factors can lead to low employees retention rate in an efficient way.

E. Matuska, (2014) concludes that employee's retention of highly skilled employees whose asset is knowledge, can easily create and innovate the innovation, efficiency, enhance productivity because there are many resemblance between the innovation and HRM strategies. Both are oriented and focused on higher level of organization productivity and better and efficient competitiveness, both are based on engagement of highly creative and most dedicated employees, including managers and supervisors.

Sadoughi, (2014) stated that every one of knowledge workers is an expert in their domain. Top officials know achievement on account of this issue. The case which, causes supervisors concern is that don't lose these capable individuals. Directors realize that skilled employees can go wherever they need. There is nothing more imperative than contracting gifted and created powers. This is the as a matter of first importance activity.

Soheili, (2014) in his exploration researcher discovers that authoritative culture has a critical and positive effect on information stockpiling. Authoritative culture has a noteworthy and positive effect on hierarchical responsibility. Information sharing has a critical positive effect on workers' retention. Authoritative duty has a critical positive effect on employee's retention. Hierarchical culture has an effect on support and maintenance of knowledge workers. G. J. Hotz, (2015) the study reveals that a good reward and recognition system has an actively Participation and contribution in employees engagement and over the years it is not only about some financial schemes for employees but some other non- monetary benefits are also provided to employees in order to motivate them for higher performance, productivity and efficiency higher level of engagement and organizational commitment.

Gambardella et al., (2015) states in his study that in organizations where the challenge of employee's motivation level, job engagement and health and welfare comes in, the productivity and retention of knowledge workers may hinder the concerns badly. Knowledge workers needed the freedom and autonomy to use their skills, knowledge, capabilities and feel competent all the way. The work and decision based autonomy has been identified as a significant factor in motivating the knowledge workers and increasing and enchaining their level of commitment to the organizations. The knowledge workers level of engagement has directly associated with his performance. The other factors which can affects the performance of employees like of time management, conflicts, personal issues with boss, work place boredom, mental and

physical health of employees, conducive work environment, work culture leads to better performance of employees.

Figurska, (2015) state that the knowledge workers with the help of his knowledge takes knowledge based strategic decisions and required actions, actively interacts and participates with the organization and may influence its external environment as well in a greater way. The knowledge workers provides an innovative solution to a specific problem weather its organizational, technical encountered by the organization. It can be good enough to become a benchmark in the industry to give the organization competitive advantage on the market share and growth. N. Kinnie and J. Swart, (2015) according to their study, high levels of energy and flexibility, work dedication, strong inVolvement and passion for work, and a pleasant state of work awareness leads to employees retention.

J. Van Wingerden, D. Derks and A. B. Bakker, (2015) conclude that on the basis of the interview analysis, the role of personal characteristics and kinds of behaviour as predictors of employees retention development was highlighted, in particular in independent expert activities and tasks. In inclusion to recognize factors mentioned in research literature studied, many new precursor such as job flexibility, aspire for excellence, supportive attitude, and autonomy and balance emerged from the data collected indicated towards retention.

Kumar and Pansari, (2015) describe the employees retention as "a multifaceted construct that includes all of the different surfaces of the attitudes and behaviours of employees towards the concern". They revealed, there are five extent of employees retention, mainly named as:- Employees satisfaction (the Positive response of employees to overall job situation) - Employees identification (Employees identify as part of the organization) - Employees commitment (Employees are performing more than what is in their job description and specification) - Employees loyalty (Positive attitude and behaviour towards the organization.

J. Ruostela, A. Lönnqvist, M. Palvalin, M. Vuolle, M. Patjas and A. M. Raij, (2015) concludes that the, flexible job policies are normally formed to provide employees a degree of choice and freedom over how much, when and where they want to perform their work and to help them getting a more satisfactory and desired work-life balance". Job Flexibility can be related to content flexibility, time and motion flexibility, and location flexibility. There are many possibilities for flexibility in work disposition such

as reduced hours of work, non-standard working hours, many forms of remote job performance, and flatten working time motivates the feeling of retention.

L. Mládková, J. Zouharová concludes that With respect to knowledge workers six motivators were identified by Mládková et al. as: Autonomous work and working environment, Ambiguous and key focus of career development, Accomplishment driven, High response from praise and peer-group assessment, Requiring continuous learning and improvement, Manage their own time, Creativity, innovation and problem solving skills are essential. As research describes that these all factors motivate the employees and help the organization in achieving the desired level of employee's retention.

C. George, (2015) suggest that the employees retaining factors to be more concerned to fair wage and salary structures, transparency, performance indicators, efficient promotional schemes, work life balance programmes, job autonomy, work culture, mutual relationship with colleagues, motivates the employees to remain engaged. Kalman, (2015) states that hierarchical culture; representatives' authoritative duty, seen hierarchical help, and word related fulfilment influence the support and maintenance of representatives, separately. Rasouli and Rashidi, (2015) additionally have discovered that HR's projects, including abilities improvement, pay and advantage, the chance to take an interest, hierarchical help, and procedural equity can foresee the expectation to remain in the association through factors of word related fulfilment, hierarchical responsibility, and trust to directors. Among them hierarchical help have the immediate impact and most grounded circuitous impact on information specialists' expectation to remain. Sibson consulting, (2016) state in their research that "Employees commitment to objectives is a directly affected function of the rewards and benefits associated with employees achievement" and in the past decade as well the reward, recognition and compensation benefit package have a great impact in diverse management consultant firms and for HR professionals and strategy makers. The strategies should be made in accordance with a concept of total satisfaction, total rewards and basically implementing bringing an overview containing all monetary and non-monetary rewards for the employees for the betterment.

J. Hakanen, (2016) state that the pay scale cannot provide any help in addressing the issue of significant factors in the process of work related retention activities provides a significant tool which supports the mechanism of work related retention and

engagement factors such as, freedom to work, support from management, rewards, recognition and praise in the context of newly assigned work. This is a research gap and has identified by many prominent researcher with the help of a personal interview with Hakanen in February 2016, with knowledge quantitative data on retention and engagement factors in atypical job roles.

S. Siebert, G. Martin, and B. Bozic, (2016) states that employees trust plays a very crucial role in employee's engagement and employee's retention. It may be between employers and employees, between employees and supervisors, employees and top management or between leaders, and also between employees and the organization as full.

G. C. Kane, D. Palmer, Phillips Nguyen, A., Kiron and N. Buckley, (2016) states that the changing nature of work and its environment affects the employees' engagement in an effective manner. Therefore today speed of digitalization and globalization in the form of technical aspects progress in the form of the virtual work places, context place new demands on knowledge workers and their level of productivity desired. Personal characteristics such as flexibility, responsiveness, creativity, adaptability and level of communication skills are becoming more precise and decisive determinants of good employees. K. Vogt, J. J. Hakanen, R. Brauchli, G. J. Jenny, and G. F. Bauer, (2016) their study concludes that there is a strong and positive association between job crafting and employees job fit of which organizations may expect crucial and vital results if employees -job fit is assessed and analyzed on regular basis. A study showed that a suitable fit between employees and their concerned jobs be a route to encounter work as personally more significant which in turn moves to more improved job performance, job -satisfaction, and retention of them in the organization for long period. The Job crafting may best aid by providing sovereign job support and resource to the employees and by stimulate them into proactive behaviour. Some other prominent personal traits which seem to predict a like hood towards readiness to job crafting are self-competence, self-esteem, and flexibility.

Sibson consulting, (2016) states that the, rewards is associated with employees achievement and in the past decade(s) the reward and compensation package have become vital ingredients of employees engagement and retention. HR strategies been transformed to a concept of total rewards and efficient compensation package , basically bringing an overview containing all financial and non –financial rewards for the

employees and this will turn them towards satisfaction, which ultimately move them towards engagement.

Nirmala Chaudhary, Bhawana Ahuja, (2016) their study is about to measure the level of 6 access of employees retention and perceived HRM policies and practices of selected Private Sector Banks in Haryana state. With the help of one-way analysis (ANOVA), the study postulated that there is vital variance in the level of constituent of employee's retention. The extracted factors were, Organizational culture and climate, level of Job Satisfaction, choice of employer, tendency to stay or leave, employees well-being schemes and level of Organizational Commitment were the components which were contemplated to research the level of employees retention. Among these variables, Job satisfaction and choice of employer were having significant value i.e. less than .05.Overall level of employee's retention is significantly different as Sig. value (.025) which is also less than .05. The employees of AXIS and HDFC bank having high level of employee's retention than the other competing banks.

Caballer et al., (2016) shows the emerging concept of new work theories changed the world of work specifically and it affects the employee's retention in a significant way. The enhancement of new autonomous work, job designing and crafting, continuous productive learning, automation of work, need for entrepreneurship all together with a blend of globalization and digitalization of economy are rapidly changing the modes of work is being done in different ways. The value of work performed virtually will increased, introduction and adoption of new methods of performing tasks such as virtual platforms for employees co-creation and co-ordination of work teams. The traditional job role, types of employer's, employees and customers is becoming unclear, adding new partner's into the picture and new work challenges not only affect organizations but also employees 'and their development.

According to research conducted by European Observatory of Working Life, (2017) describe a typical work roles plays a major role in employees retention. These sort of roles provides greater work autonomy, freedom to work, decision making and self-prestige elements in job life. These are described as the just opposite of typical routine work roles, which are needed full-time, continuous work relationships with employer, supervisor's and colleague's and go over a longer time period.

Deloitte Nordic Millennial Survey, (2017) the survey conduct by Deloitte's Nordic Millennial it already shows various elements for vital changes in the level of retention

such as profit sharing, non-monetary benefits, role meaningfulness, security of job, higher salary structures etc.

3.3 KNOWLEDGE WORKERS MANAGEMENT STRATEGIES

Raelin, (1997) suggest that the top management should develops a feasible model for work based organizational learning on both individual and team ground. The model explores and analyze how individuals and teams learn and act in different organization work settings. Work based learning enhance the tactical and behavioural knowledge of the knowledge workers, which motivates them to work effectively and efficiently with specialization.

Osterloh and Frey, (2000) the study looks at the motivation in two ways, intrinsic and extrinsic motivation in relation to management of knowledge workers. The findings of the study shows that proper transfer of knowledge, communication, work flexibility, work culture, interpersonal relationship, co-ordination with peers, participation in strategic decision, better rewards for good performance, timely appraisals lead to motivation of knowledge workers which create a sense of belongingness. This helps in management of these key resources in a good manner. The vision and mission of top management ensure it success or failure.

Miller, (2002) states the competencies a knowledge workers has such as vision, direction, impact, challenge of going beyond the capabilities, listening, validation of skill and contribution, learning, the power to act and values. The researcher concludes that the organizations which care about these abilities, the rate of the success of the organization becomes higher.

Awad and Ghaziri, (2004) concludes that the organizations should recognize the contribution of knowledge workers. It helps them to develop the core interest in the organization as a whole. Mere financial recognition is not the only thing an employee demand; it is the level of contribution he/she provide to the organization. The result of the study shows that the top officials who care about the contribution of workers at most lead to engagement and retention.

Laycock, (2005) the study concludes that for knowledge worker's management the co-ordination with team, supervisor is very essential. The top management plays a crucial role in tit. Collaboration with in the organization make the work place pleasant, create a sense of empathy and reduce the differences, for to make it happen top management actively govern this approach.

Johnson, (2006) the study shows that knowledge workers follows a tag line 'Thinking for a living'. The working environment is too dynamic, therefore top management need to know the wide context of work means. Top management take initiatives for improvement of the technical and strategic skills time to time. Industry specific programmes, courses and workshops shops needs to be exercised.

Johnson, (2006) the study shows that motivation, encouragement and ease of working is very crucial for knowledge workers productivity. The stress at work hamper the performance of the workers. It is the time to overlook the boss- worker relationship. Need of the hour is to make player-coach relationship, this creates a tension free environment in the organization. Encouragement from the top management and strategic planning in the right direction lead to better management of these talented d employee.

Davenport (2007) states that knowledge workers influence the growth of the organizations in which they work. These workers are highly specialized in strategic decision making, planning execution of policies, leadership, communication etc. They seek value from the top management for their work. These workers expect from management that they value their potential and regard their work in organizational work setting.

Bernstein, (2010) concludes that knowledge workers feel engaged and retain when the top management provide them options to indulge in new projects on a continuous basis because due to their potential specializations they wish to perform efficiently and diligently with a sense of more autonomy. Leadership development programmes motivate the knowledge workers to perform well. A proper planning for employee training and development schedules help the potential workers to perform well within given resources.

Liu, (2012) concludes that motivation and loyalty among knowledge workers beat the attrition. Knowledge workers are highly skilful and have strategic knowledge with them. Non- monetary benefits can create wonders for the management. Empowerment, flexible work timing, free team development and recognition for achievement motivate the knowledge workers in a significant way. Value for self-actualization and career advancement by the management help to remain these workers motivated and engaged.

Martin (2013) concludes that knowledge workers seek from management that they should be treated as the asset for the company not altogether the liability. These professionals performs good work in extreme competitive conditions and give the desired results. The compensation is not the only factor which motivate them to perform well but treatment in the organization is also very important. They seek value for their work from the management and need continues support and encouragement.

Kwon et al., (2014) concludes that knowledge workers are high in skills and dynamic in nature. They perform strategic function with the help of teams. The developmental feedback system prevailing in the organization shows them the direction in which they work. It shoes the ways of improvement if someone is lacking behind the targets. Top management has to ensure the culture of constructive feedback system in the organization. It tells the management and the knowledge workers about the shortcomings in the system and approach of working, it opens up the option of new techniques and procedure of working for these potential workers.

Figurska (2015) concludes that knowledge workers are highly skilled and dynamic in nature. They perform non- routine functions, creatively solving the problems with high degree of specialization. Flexible work culture affects the performance of these workers. They wish to work freely and with autonomy. Flexible work arrangement improves the efficiency of the team and lead to achievement of objectives in cost effective manner.

Lai, (2015) states that knowledge workers contributes to the organization significantly. Therefore they seek attention and awareness from the top management to recognize and value them in a proper way. Knowledge workers execute non-routine function that affects the level of productivity of the organization. These workers are the soul of the organization, therefore top management has to care about them, encourage, motivate, value for work, development programmes, leadership development etc. has to carry in a planned way to retain and engage these asset in the organization.

Gambardella et al., (2015) the research concludes that the job stress hampers the performance of the knowledge workers in a significant way. Unnecessary policy matter hinder the activities used for work accomplishment and assigned tasks. Least important work assignments waste more time, potential ability and energy of these professionals. Much more documentation and reporting also hamper the performance and it lead to

attrition. Therefore, work culture and task assignments has to be flexible and make the working condition easier for work.

Jayasingam and Young, (2016) research states that knowledge workers execute their expertise, experience, knowledge sharing, leadership qualities and creative thinking in the organization to achieve its goals or targets. These workers are key for customer retention and to create more stakeholder values, therefore proper planning for the desired number of professional requires to perform these strategic activities for future projects. Therefore, management has to ensure the right pool of professional for current and future projects.

3.4 RESEARCH GAP

From the above mentioned studies (Literature Review) and with the best knowledge of researcher concludes that there are not many studies done on knowledge workers management strategies and their impact on knowledge workers engagement and retention specifically. However various studies on employees engagement and retention on knowledge workers' have been done separately in past. So this study was taken place because IT sector plays a huge role in development of Indian economy and the due to the dynamic nature of this information technology sector management of knowledge workers become essential. So in the current study the perception of knowledge workers are analyzed in terms of their management, engagement and retention.

The main gap is that the two parameters: engagement and retention are being analysed but an impact of knowledge workers management practices on level of engagement and retention has never been analysed. The current study is therefore focused on studying the role of top management practicing regarding knowledge workers, which drive retention and engagement in Indian Information Technology Industry of India. It is significant to disclose the perception of knowledge workers about management strategies when engagement and retention policies are taken into consideration.

CHAPTER -IV

OBJECTIVES & RESEARCH METHODOLOGY

This purpose of this chapter is to discuss the research methodology applied in this research. This chapter also explains the objectives of the research and the hypothesis to be tested in the process of research. This chapter includes a clear description about design of research methods, sampling methods, data collection tools, statistical tools, etc. with reasonable interpretation of limitations of the present study.

4.1 OBJECTIVES OF THE STUDY

The objectives of the study have been determined on the basis of review of existing literature and thoughts and analytical process of researcher's mind on this particular area and the topic. After a long and reasonable thought process, the following objectives have been framed:

1. To investigate the Knowledge workers management strategies and its relationship to employee retention and level of engagement in IT organizations.
2. To examine the factors influencing the retention and engagement of Knowledge workers in Indian IT industry.
   i. To explore the current and proposed employee engagement and retention strategies in Indian IT industry.
   ii. To suggest Knowledge workers retention and engagement innovative strategies to IT companies.

4.1.1 Description of Objectives

After extensive literature review it has been revealed that not only engagement and retention strategies influence the bonding and stay of knowledge workers in the organization but the strategies adopted by the top management in regard of knowledge workers also affects the level of engagement and retention. Therefore, for more clarification of objectives and analysis, the study has been divide into three main heads namely, knowledge worker's engagement, retention practices and KW management strategies

Firstly, various factors has been explored and analyzed which affects the knowledge worker's engagement and retention strategies in Indian Information Technology sector.

Thereafter, various knowledge workers management strategies has been investigated and analyzed the impact of these strategies on the engagement and retention of knowledge workers in Indian Information Technology sector has been done.

4.1.2 Hypothesis Tested

For proving more justification of the research and its objectives, there are following hypothesis to be tested.

- H_{01}: The perception of the knowledge worker's working with different category of companies towards knowledge worker's engagement practices adopted by their employer is same.
- H_{02}: The perception of the knowledge worker's working with the current organization in terms of experience towards knowledge worker's engagement practices adopted by their employer is same.
- H_{03}: The perception of the knowledge worker's about the age and its impact on knowledge workers engagement practices adopted by their employer is same.
- H_{04}: The perception of the knowledge worker's working with different category of companies towards knowledge worker's retention practices adopted by their employer is same.
- H_{05}: The perception of the knowledge worker's working with the current organization in terms of experience towards knowledge worker's retention practices adopted by their employer is same.
- H_{06}: The perception of the knowledge worker's about the age and its impact on knowledge workers retention practices adopted by their employer is same.
- H_{07}: The perception of the knowledge worker's working with different category of companies towards knowledge worker's management strategies adopted by their employer is same.
- H_{08}: The perception of the knowledge worker's working with the current organization in terms of experience towards knowledge worker's management strategies adopted by their employer is same.
- H_{09}: The perception of the knowledge worker's about the age and its impact on knowledge workers management strategies adopted by their employer is same.
- H_{10}: There is no relationship between Knowledge workers management strategies and knowledge workers engagement and retention.

4.2 RESEARCH METHODOLOGY

The research methodology designs process for getting adequate results as per pre-determined objectives. This section of the chapter presents explanation the approach to the research problem to the procedure of its findings. With reference to the previous researches and the review of literature, as well as the opinions of prominent theorists, the researcher has contemplated the following key points to develop substantive approaches and direction to the research. The step by step process of the research methodology is as follows:

4.2.1 Research Design

Research design can be explained as a detailed outline of how a research will take place. This research study was exploratory as well as descriptive research based on a large measure on the collection of primary data from the respondents from the software professional in India. Exploratory research, as the name states, intends merely to explore the research questions and does not intend to offer final and conclusive solutions to existing problems. In the current study various variables were studied with the help of exploratory research various factors were extracted to gain more insight into the study. Descriptive research is a study designed to depict the respondents in an accurate way. More simply put, descriptive research is all about describing matter which is a pivotal part in the study.

4.2.2 Collection of Data

This study had collected data from various sources. There are two sources of collecting data. Both the sources are significant for justifying the research. In this study, both methods are appropriately used to find out better results.

The two methods of data collection are:

- Secondary data collection method
- Primary data collection method

The secondary data collection is a significant part of the research. This type of data is required even to finalize the topic. The review of existing literature is also feasible with collection of secondary data. For this research, the secondary data was acquired from:

- The National Association of Software and Services Companies (**NASSCOM**) annual reports.
- India Brand Equity Foundation
- National Institute of Financial Management, Faridabad
- International Labor Organization Library, Lodhi Road , New Delhi

- Others like: Wikipedia, Data Quest etc.

The secondary data regarding this area was available in various magazines, journals, newspapers, reports, etc. Sometimes the data was available mixed in nature. The researcher has attempted sincerely to segregate and take out the data regarding to the pre-decided topic.

The primary data was collected with the help of structured questionnaire. The questionnaire was framed with the help various variables found in literature review, thought process and discussion. In the questionnaire, 80 numbers of questions were asked from the respondents. The data has been collected for the study in the period during 2012-15.

4.2.3 Sampling

To adopt the right sampling method has been taken as a careful job of researcher. As per the title, IT companies of whole India are our population but due to time and money constrains, researcher has adopted the following methodology to take the positive results out of the research.

This section also explains about further sampling in the category of respondents as knowledge workers. The respondents have been selected for the study by keeping the two categories of knowledge workers in mind, the first is that the employees should be of software companies and the second one is that the Managers/Senior Executives would be taken as respondents to be filled the questionnaire.

In this research, under the head of Managers, the persons having the designations/positions have been taken for study: Senior Manager, Administration Manager, Executive Manager, Project Manager, Client Support Manager, Cluster Manager and Operations Manager.

Under the head of Senior Executives, the following have been considered: Desktop Engineers, Sr. Support Consultant's, Web developers, Associate SQA Engineer, Network Engineer, Software Developer, Language programmers, Software Engineer, Technology Engineer, Technical Lead, Sr. Tools Development Engineer, Systems Engineer, Operations Executives, SAP/ORACLE experts and technical analyst etc.

As per the topic of the research, samples have to be withdrawn with whole population of Information Technology professionals from India. It was a tough task, in this context researcher adopted the following sampling methodology. As coverage of India, Four

pre- determined zones have been taken. In each zone, the most popular area in regard of IT companies has been listed as per judgment sampling as, – North Zone: Delhi and NCR, East Zone: Kolkata, South Zone: Chennai and West Zone: Mumbai. However data has been collected from all four zones but it has been observed that most of the companies having their branches in Delhi and NCR.

When researcher approached for selected areas, there were many IT companies in each zone. For the study a total of 100 IT companies were selected, operated in each zone of India. In these companies, researcher had to make the strata's about IT companies. In total 3 strata's have been formed of 100 information technology companies. Strata were administered on the basis of the turnover of the concern. With the help of strata, these IT companies had been divided into three categories: (a) Top Level companies (b) Middle level companies (c) Lower level companies. It was difficult to judge the level of companies on the basis of turnover because after various studies no strong base has been found.

For more accuracy, advised from IT professional/experts has only been taken in reference to judge the companies in different categories on the basis of turnover, finally this strata has been found appropriate. The researcher assumed top level companies turnover above 3,000 cr., middle level company's turnover between 1,000 cr. to 3,000 cr. and lower level companies belonged to below 1,000 cr. Four IT companies were selected from each strata, which were based on the turnover of the companies and from each company 38- 44 respondents were taken for the study.

4.2.4 List of Companies selected for the data collection

On the basis of above mentioned sampling frame the following companies were selected for the collection of data presented in table 4.1.

Table 4.1 List of selected IT Companies for the research

S.No	Name of the Companies	Turnover (2012-13)	Group
1	TCS	81,809	**Top Level Companies**
2	Cognizant Technology Solutions	55,894	
3	Wipro	43,763	
4	HCL Technologies	31,200	
5	Cyient	2,406	**Middle Level Companies**
6	Hexaware Technologies	2,367	
7	NIIT Technologies	1,805	
8	Ricoh India	1,488	
9	Birla soft	939	
10	AMD India	499	

11	RS Software	382	**Lower Level Companies**
12	Huawei India	320	
Compiled by the Researcher			

501 have been taken as sample size from all 12 companies. The determination of the sample size was with Z- score, standard deviation and confidence interval.

The sample size was determined with the help of Z-score, Standard of Deviation, and confidence interval.

Necessary Sample Size = (Z-score) ^{2} * Std. Dev*(1-StdDev) / (margin of error) ^{2}

Here are the z-scores for the most common confidence levels:

90% – Z score = 1.645

95% – Z score = 1.96

99% – Z score = 2.326

So the equation is as under:

$((1.96)^2 \times .5(.5)) / (.045)^2$

$(3.8416 \times .25) / .002025$

$.9604 / .0020$

480.20

481 respondents needed

To collect the desired number of respondents a total of 550 questionnaires were distributed out of that 501 duly filled questionnaires were received back. The respondents were the knowledge workers (employees) working in 12 selected IT companies. From each company the questionnaire has been filled.

The data was collected by means of self-designed questionnaire for IT professionals. In the questionnaire, various statements were included like employers awareness, rewards, compensation structures, benefits programmes, training and development, leadership, supervisors behaviour and many more The questionnaire was developed as well as tested in the following stage:-

(i) Identifying variables and finalise with the help of literature review.

(ii) Pilot survey

(iii) Finalising the questionnaire

(iv) Reliability and validity check

The final structured questionnaire is prepared using mainly close ended questions based on the specified choice option with the help of Likert scale ranging on 1-7 scale, 1 for extremely dissatisfied and 7 for extremely satisfied with strategies of the employer on knowledge workers management and their engagement and retention.

4.2.5 Pilot survey

The pilot survey was carried out with a sample size of 50 respondents with a view to clarify questionnaire structure holistically and avoid any interpretation problems. Suggestions and were invited from the respondents. This helped in improving the quality and texture of the questionnaire to ensure smooth data collection. The reliability and validity of the questionnaire is measured of different stage to ensure that data collected is reliable and data can be analysed further with the help of Cronbach's alpha values all ranging above 0.7 which is acceptable.

4.3 DATA ANALYSIS TOOLS

For more clarification and accuracy of results ANOVA, Exploratory Factor Analysis (EFA) and Confirmatory factor analysis (CFA) were used with the help of SPSS 20 and AMOS 23.

4.3.1 Data Analysis

Descriptive statistics were broken down into measures of central tendency and measures of variability, or spread. Measures of central tendency include the mean, median and mode, while measures of variability include the standard deviation or variance, the minimum and maximum variables, and the kurtosis and Skewness. In order to analyze and explore the variables, exploratory factor analysis (EFA) statistical method is applied. The Kaiser-Meyer-Olkin Measure (KMO) as well as Bartlett's test of Sphericity is applied in the study in order to test the presence of required sampling adequacy and the correlation structure between different pair of variables.

The KMO value were significant and of also represents the adequacy of enough variations in the responses against the statements which is a necessary condition to apply EFA.

Confirmatory factor analysis (hereafter CFA) is used to test the construct validity of the scale developed (in order to measure knowledge workers management practices) in the process of applying EFA. Confirmatory factor analysis (hereafter CFA) is used to test the construct validity of the scale developed (in order to measure knowledge workers retention policies & practices) in the process of applying EFA .Confirmatory factor

analysis (hereafter CFA) is used to test the construct validity of the scale developed (in order to measure knowledge workers engagement practices) in the process of applying EFA. The composite reliability of all the constructs should be greater than 0.7 and average variance extracted should also be greater than 0.5. The results also indicate that the composite reliability of all the construct are found to be greater than 0.7 and average variance extracted greater than 0.5. Hence the convergent validity of the scale used in the study is ensured. The one-way analysis of variance (ANOVA) is used to determine the difference in the perceptions of employees working with selected organizations in India with respect to the different knowledge workers management practices adopted by the companies and results showed the significant variance required for the study.

Structural equation modelling is a multivariate statistical analysis technique that is used to analyze structural relationships. In the current study a model is developed which showed that there was a positive relationship between knowledge workers management practices and level of engagement and retention.

4.4 LIMITATIONS OF THE STUDY

After an application of sincere efforts and available knowledge, researcher has attempted to justify this research. However some limitations are occurred and they were out of control. So it is also an ethical duty of researcher to present the limitations of this research study. This research has adopted two methods of data collection. In this way, researcher observed the limitations in both the categories:

1. Limitations of Secondary Data Collection
2. Limitations of Primary Data Collection

4.4.1 Limitations of Secondary Data Collection

There are certain inherent limitations in secondary data collection. They are as follows:

1. Timeliness- The latest information of knowledge workers management strategies, engagement and level of retention could not be derived because no specific study regarding it is available.
2. Specificity of Purpose- The data published about knowledge workers and their productivity, retention and engagement separately in other countries and other industries, therefore it was a difficult task to make a relationship between them in Indian IT sector.

3. Relevance- During making of strata about turnover, no strong base has been found so on the basis of discussion with experts, base has been considered for the study.

4.4.2 Limitations of Primary Data Collection

4. Time Frame- the IT industry is so dynamic, study was commenced in 2013, therefore right fragments of new reforms, ups- and- downs are not taken into picture exactly.
5. The Information Technology organizations being relied on information, manipulation of facts sometime due to appropriate data has not been disclosed. However, the variables and the structured questionnaire prepared for this study give and fair and clear idea about knowledge workers management strategies and its relation to employee engagement and retention.
6. Cost- It is really expensive to go to the respondents and get filled the questionnaire. Cost has been incurred in reference to money and time beyond the reasonable limit, it was became a limitation of the study.
7. Not much of researches have been found those directly relate to knowledge workers management strategies to various factors as, Communication level, rewards and recognition, compensation structure, recreational activities and other benefit programmes in Indian IT sector.

CHAPTER -V

DATA ANALYSIS AND INTERPRETATION

This chapter focuses on the different aspects knowledge workers (KW) engagement practices, retention practices and management strategies in IT sector companies in India. This chapter deliberate the results of the statistical analysis done on primary data (qualitative and quantitative) collected from employees working with different IT companies operating in India. For clear presentation of the data presentation, analysis and interpretation, the chapter is divided into five sub sections named below.

a. Demographic Profiles
b. Knowledge workers Engagement Factors
c. Knowledge workers Retention Factors
d. Knowledge workers management Strategies
e. Impact of Knowledge workers management strategies on KW engagement and retention

After extensive literature review it has been revealed that not only engagement and retention strategies influence the bonding and stay of knowledge workers in the organization but the strategies adopted by the top management in regard of knowledge workers also affects the level of engagement and retention. Therefore, for more clarification of objectives and analysis the study has been divide into three main heads namely, knowledge worker's engagement, retention practices and KW management strategies.

Firstly, various factors has been explored and analyzed which affects the knowledge worker's engagement and retention strategies in Indian Information Technology sector. Thereafter, various knowledge workers' management strategies have been investigated and analyzed the impact of these strategies on the engagement and retention of knowledge workers in Indian Information Technology sector has been done.

5.1 DEMOGRAPHIC PROFILE

The first section of this chapter will present the demographic profile of respondents. It is an effort to present a brief data with help of diagrams and charts.

For the purpose of getting the questionnaires filled an attempt is to approach of knowledge workers. During a long time of this research, 550 respondents were

contacted from Information Technology sector throughout India, out of which 501 respondents completed the questionnaire. Therefore, the response rate was 92% which is really good and shows the sincerity and co-operated nature of knowledge workers in IT sector in India. The questionnaire consists of 80 statements related to knowledge workers engagement, retention and KW management strategies questions on a 7 point Likert scale. In this questionnaire, there are some demographic questions detailing about gender, marital status, education, age, number of years in current organisation. A precise summary of demographic profile is being presented in form of table in Table 5.1(a) mentioned below.

Table 5.1 (a) Demographic Profile of Respondents

Particulars		**Frequency**	**% Percentage**
Gender	Male	266	53%
	Female	235	47%
Marital Status	Married (266)	Male (152)	57%
		Female (114)	43%
	Unmarried (235)	Male (99)	42%
		Female (136)	58%
Age	Below 30 Years	130	26%
	31- 40 Years	240	48%
	41- 45 years	80	16%
	Above 45 years	51	10%
Experience in Current Company	Less than 3 years	140	28%
	3 – 5 Years	150	30%
	More than 5 Years	231	42%
Designation	Software Engg.	205	41%
	IT Managers	125	25%
	Web Developers	80	16%
	Programmers	61	12%
	Data Analyst	30	6%
Education Qualification	Graduate	346	69%
	Post Graduate	95	19%
	Others	60	12%
Compiled by the Researcher			

Table 5.1(b) Group of Companies			
Description of Group of Companies	Top	167	33.3%
	Medium	170	33.9%
	Small	164	32.8%
Compiled by the Researcher			

Interpretation of the table 5.1 (a & b)

In total respondents, 53% were males and 47% were females. As far as marital status is concerned, 57% of males and 43% of females were married, while 58% females and 42% males were unmarried. In education profile 69% of respondents were graduate, 19% were post graduates and other qualifications were possessed by 12 % of respondents. In regard of experience in current company, 28% of respondents had a tenure of less than three years, 30% having a time of three to five years and 42% of respondents have an experience of more than 5 years in the current organization. As far age of respondents is concerned, 26% of respondents were under 30 years of age, 30-40 years of age having 48% of respondents, 16% of respondent belong to age group of 41 years to 45 years and 10% of respondent were in an age group of 45 years and more. In regard of designation in the organization, 41% of respondents were software engineers, 25% of respondents were IT managers, 16% respondents were web developers, 12% were programmers and 6% were data analyst. The companies having a turnover of above 3000 cr termed as top companies which were having 33.3% of respondents, middle level companies having a turnover between 1000cr.-3000 cr. Which were having 33.9% of respondents and low level companies having turnover less than 1000cr were having 32.8% of respondents in the study.

The presentation of demographic profile in form of graph-wise is given below:

Figure 5.1 Gender

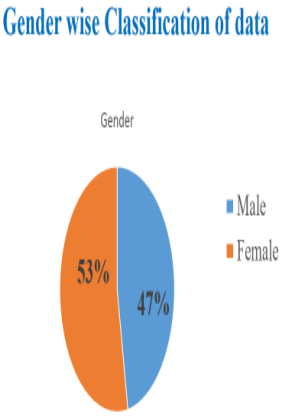


Figure 5.2 Marital Status

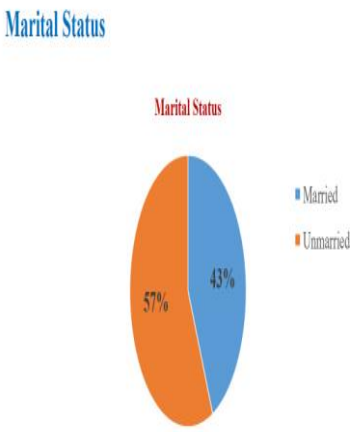


Figure 5.3 Age

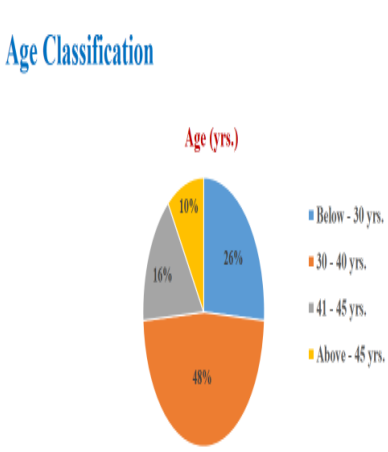


Figure 5.4 Experience with Current Organization

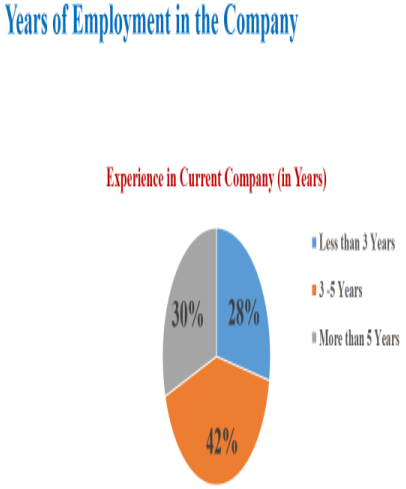


Figure 5.5 Designation

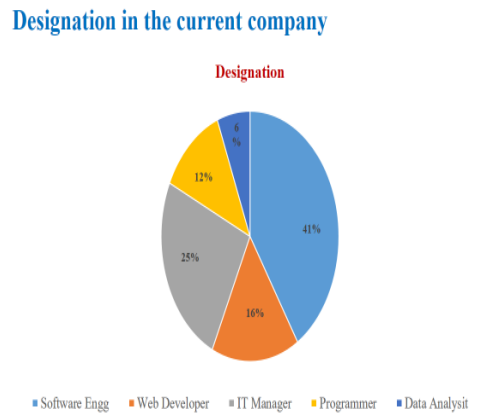
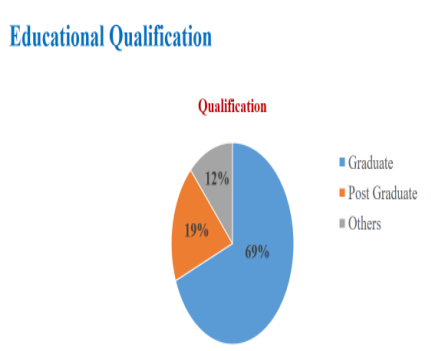


Figure 5.6 Qualification



In the demographic profile and group of companies, three parameters have been selected for the analysis with the help of ANOVA named as on the basis of group of companies, experience with current organization and age of the respondents.

5.2 DIMENSIONS OF KNOWLEDGE WORKERS ENGAGEMENT PRACTICES

This section will explain the theoretical background related on knowledge workers engagement practices in general. It will discuss the different factors affecting the knowledge workers engagement practices (KWEP) in IT sector. The factors are identified with the help of exploratory factor analysis applied on different variables used in the questionnaire. This section also discusses and analyze the reliability as well as the validity of the identified factors of knowledge workers engagement practices in IT sector. The validity analysis is done with the help of Confirmatory Factor Analysis.

This section also discussed the results of descriptive analysis done on various dimensions of identified knowledge workers engagement practices.

In order "**To examine the factors influencing engagement of Knowledge workers in Indian IT industry".** Following steps are taken. In the research study, the primary data is collected from the employees working with different IT companies is collected in order to study their perception towards different statement related to KW engagement practices. Thirty Three variables related to different knowledge workers engagement practices adopted by different IT companies in India are included in the questionnaire.

S No.	Table 5.2 Variables (Engagement Practices)
$V1_E$	I have the materials and equipment I need to do my job efficiently
$V2_E$	I know what is expected of me in my job
$V3_E$	Workload is distributed equally throughout our department or unit
$V4_E$	I feel competent and fully able to handle my job
$V5_E$	I am proud to say that I work at this company
$V6_E$	I am comfortable in my place of work
$V7_E$	I have a best friend at work.
$V8_E$	I am aware of the promotion opportunities in my company
$V9_E$	I have a clearly established career path at Company.
$V10_E$	In general, promotions are handled fairly at my company
$V11_E$	In the last year, I have had opportunities to learn and Grow
$V12_E$	Company provides me good transportation facilities.
$V13_E$	Company cares for my security and health.
$V14_E$	The recreational activities(Theme days, picnics, contests, etc) make me look forward to work
$V15_E$	Recreational activities play a major role in my choosing to stay at Company
$V16_E$	Recreational facilities provided by Company are as good/better than the other companies.
$V17_E$	Recreational facilities leads to employee engagement and retention
$V18_E$	If I do good work I can count on making more incentives
$V19_E$	My Company recognizes or praises me whenever I do a good job.
$V20_E$	I am happy with the benefits package offered at Company
$V21_E$	Recognition programmes done according to policies with transparency
$V22_E$	The people I work with help each other when needed.

$V23_E$	My co-workers and I share information and new ideas.
$V24_E$	My co-workers do their best.
$V25_E$	I enjoy working with my co-Workers.
$V26_E$	My Team Leader treats me fairly
$V27_E$	I can freely approach my Team Leader with problems
$V28_E$	My Team leader handles my work-related issues satisfactorily
$V29_E$	There is good communication between me and my superior.
$V30_E$	I can trust what management tells me about work practice
$V31_E$	I feel free to offer comments and suggestions & feedback
$V32_E$	Communication gap level
$V33_E$	All the communication done in a scheduled way and order.
By Researchers Analysis	

The data is collected with the help of self-designed questionnaire which was further validated. The IT employees selected for the study were asked to rate different variables related to organizational citizenship behaviour (OCB) in the scale of 1-7, where 1 stands for 'strongly disagree' and 7 stands for 'strongly agree'. In total, there were five hundred one responses are collected with the help of the questionnaire. Before doing the further statistical analysis the reliability of the variables is analysed. This study is focussed on the study of knowledge workers engagement practices adopted by IT companies in India.

5.2.1 Factors affecting knowledge workers engagement practices

In order to measure different aspects of knowledge workers engagement practices adopted by IT companies in India. Thirty Three variables related to different knowledge workers engagement practices adopted by different IT companies in India are included in the questionnaire. In order to analyse and explore the latent variables, exploratory factor analysis (EFA) statistical method is applied. The EFA helps in identifying the correlation relationship among the variable considered for the study. The EFA statistical method analyse the correlation relationship between all the pairs of variables

considered in the study and try to reduce the variables into few significant latent variables. These latent variables are known as factors. These latent factors individually represent a group of variables having significant correlation between them. Exploratory Factor analysis (EFA) requires the fulfilment of few assumptions. The assumptions of EFA include the availability of sampling adequacy and presence of significant correlations between the different pair variables considered for the study. The Kaiser-Meyer-Olkin Measure (KMO) as well as Bartlett's test of Sphericity is applied in the study in order to test the presence of required sampling adequacy and the correlation structure between different pair of variables. The statistical result of KMO measures of sampling adequacy and Bartlett test of Sphericity is shown below in Table 5.3.

Table 5.3 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.900
Bartlett's Test of Sphericity	Approx. Chi-Square	12684.987
	df	528
	Sig.	.000

The statistical result of KMO test indicates that the KMO statistic is found to be 0.900 which indicates the presence of required sampling adequacy in the data set collected in the study. The KMO value of ***0.900*** also represents the adequacy of enough variations in the responses against the variables which is a necessary condition to apply EFA. Hence it is confirmed that sample adequacy is present in the dataset. The Bartlett's test of Sphericity indicates the existence of significant correlation relationship between the different pair of variables selected for factor analysis. The null hypothesis of the Bartlett test assumes that the correlation matrix indicating the coefficient of correlation between all pair of variables is an identity matrix. The results of Bartlett test indicate that p value of Chi-square statistic is found to be less than 5 percent level of significance. Thus, with ninety five percent confidence level it can be concluded that the correlation matrix representing the coefficient of Pearson correlation is not an identity matrix. Hence it can be concluded that there exist significant correlations between different pair of variables which is required in order to apply EFA.

Table 5.4 represents the communalities of included variables before and after the factor extraction. The initial communality (before extraction) is always assumed to be 1. However, after factor extraction the communality will depend upon the amount of variance available for the analysis of the selected variable. Individually 100 percent variance is available for analyzing the variables/variables however after factors are extracted same variance is lost in the process. Hence it is required to analyze the remaining variance available for the analysis. The communality of the variable as shown in the table 5.4 indicates the proportion of variance explained by the variables after extraction by factor analysis.

Table 5.4 Communalities

	Initial	Extraction
I feel competent and fully able to handle my job	1.000	.791
I know what is expected of me in my job	1.000	.707
I have the materials and equipment I need to do my job efficiently	1.000	.652
Workload is distributed equally throughout our department or unit	1.000	.648
My Company recognizes or praises me whenever I do a good job.	1.000	.774
I am proud to say that I work at this company	1.000	.757
I am happy with the benefits package offered at Company	1.000	.865
If I do good work I can count on making more incentives	1.000	.788
I have a clearly established career path at Company.	1.000	.806
I am aware of the promotion opportunities in my company	1.000	.786
Recognition programmes done according to policies with transparency	1.000	.872
In general, promotions are handled fairly at my company	1.000	.889
In the last year, I have had opportunities to learn and Grow	1.000	.863
I enjoy working with my co-Workers.	1.000	.797

My co-workers and I share information and new ideas.	1.000	.659
The people I work with help each other when needed.	1.000	.701
My co-workers do their best.	1.000	.815
My TL handles my work-related issues satisfactorily	1.000	.754
My Team Leader treats me fairly	1.000	.709
I can freely approach my Team Leader with problems	1.000	.827
There is good communication between me and my superior.	1.000	.796
I feel free to offer comments and suggestions & feedback	1.000	.814
I can trust what management tells me about work practice	1.000	.799
All the communication done in a scheduled way and order.	1.000	.822
Communication gap level	1.000	.851
Company cares for my security and health.	1.000	.818
I am comfortable in my place of work	1.000	.729
I have a best friend at work.	1.000	.858
Company provides me good transportation facilities.	1.000	.850
Recreational Facilities leads to Employee Retention	1.000	.605
Recreational activities play a major role in my choosing to stay at Company	1.000	.896
The recreational activities(Theme days, picnics, contests, etc) make me look forward to work	1.000	.828
Recreational facilities provided by Company are as good/better than the peer companies.	1.000	.867
Extraction Method: Principal Component Analysis		

The result indicates that the initial communalities of each variable is found to be 1. However, the extracted communalities are less than 1. The result indicates that the extracted communalities of all the variables is found to be greater than 0.6. The extracted communalities indicate the goodness of fit of the factor analysis. Higher the value of extracted communalities of variables better it is. Hence, all the variables can

be included in the factor analysis. The factor analysis applies the process of principle component analysis in order to identify and estimate the Eigen value of principle components. After calculating the Eigen values of the components they are arranged in descending order with respect to calculated Eigen values. For the analysis the principle component having Eigen value more than 1 is selected for the study. The results of factor analysis after applying principle component analyses is shown in table 5.5.

Table 5.5 Total Variance Explained

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.776	29.625	29.625	9.776	29.625	29.625	3.580	10.848	10.848
2	2.811	8.517	38.142	2.811	8.517	38.142	3.320	10.059	20.907
3	2.510	7.605	45.747	2.510	7.605	45.747	3.307	10.022	30.930
4	2.434	7.377	53.124	2.434	7.377	53.124	3.277	9.930	40.860
5	2.214	6.710	59.834	2.214	6.710	59.834	3.263	9.887	50.747
6	2.200	6.667	66.501	2.200	6.667	66.501	3.174	9.620	60.367
7	2.041	6.185	72.686	2.041	6.185	72.686	3.081	9.335	69.702
8	2.003	6.070	78.756	2.003	6.070	78.756	2.988	9.054	78.756
9	.533	1.615	80.371						
10	.499	1.513	81.884						
11	.483	1.464	83.348						
12	.439	1.330	84.678						
13	.423	1.281	85.959						
14	.369	1.118	87.077						
15	.353	1.069	88.146						

16	.327	.992	89.138						
17	.312	.945	90.083						
18	.296	.897	90.980						
19	.293	.889	91.869						
20	.267	.810	92.679						
21	.257	.777	93.456						
22	.245	.743	94.199						
23	.237	.720	94.919						
24	.221	.670	95.589						
25	.212	.641	96.230						
26	.204	.617	96.847						
27	.190	.576	97.423						
28	.171	.517	97.939						
29	.162	.490	98.430						
30	.153	.463	98.893						
31	.143	.432	99.325						
32	.121	.367	99.693						
33	.101	.307	100.000						
Extraction Method: Principal Component Analysis.									

The results indicate that the thirty three variables considered for KW engagement practices can be reduced to eight principle components having Eigen values more than 1. These eight factors explain approx. 78 percent of the variance of the included variables. Assuming that the explained variance is sufficient, the extracted factors will be used for further analysis.

In order to modify the extracted components representing the thirty three variables/variables considered for the study, orthogonal rotation (Varimax) is applied.

The rotated component matrix (RCM) represents the factor loading of each variable to the extracted factors. The factor loadings can be defined as the correlation between the factors and the variables. It is assumed that every variable considered for the study must have significant factor loading to only one factor and insignificant factor loadings to all other extracted factors. The result of the rotated component matrix is shown below in table 5.6.

Table 5.6 Rotated Component Matrix

	Components							
	1	2	3	4	5	6	7	8
I have the materials and equipment I need to do my job efficiently	.782	.048	.067	.029	.014	.103	.050	.141
I know what is expected of me in my job	.800	.101	.077	.077	.118	.081	.133	.078
Workload is distributed equally throughout our department or unit	.763	.108	.057	.131	.127	.035	.089	.093
I feel competent and fully able to handle my job	.851	.129	.064	.106	.124	.096	.090	.053
I am proud to say that I work at this company	.818	.147	.101	.129	.159	.078	.079	.033
If I do good work I can count on making more incentives	.103	.121	.850	.088	.066	.104	.109	.073
My Company recognizes or praises me whenever I do a good job.	.095	.093	.842	.096	.068	.088	.122	.104
I am happy with the benefits package offered at Company	.090	.119	.890	.095	.042	.085	.100	.148
Recognition programmes done according to policies with transparency	.067	.156	.886	.066	.118	.101	.060	.163
I am aware of the promotion opportunities in my company	.144	.843	.126	.081	.059	.071	.127	.082
I have a clearly established career path at Company.	.117	.837	.138	.118	.132	.113	.119	.116
In general, promotions are handled fairly at my company	.143	.894	.120	.074	.139	.099	.069	.124
In the last year, I have had opportunities to learn and Grow	.131	.877	.121	.106	.126	.100	.083	.133
The people I work with help each other when needed.	.100	.075	.118	.026	.081	.078	.102	.804

My co-workers and I share information and new ideas.	.105	.122	.144	.133	.111	.096	.047	.745
My co-workers do their best.	.092	.069	.067	.035	.063	.090	.093	.880
I enjoy working with my co-Workers.	.084	.157	.136	.130	.049	.139	.062	.839
My Team Leader treats me fairly	.091	.144	.071	.030	.096	.062	.809	.077
I can freely approach my Team Leader with problems	.131	.084	.131	.106	.114	.095	.867	.025
My TL handles my work-related issues satisfactorily	.098	.074	.107	.124	.068	.148	.823	.085
There is good communication between me and my superior.	.103	.070	.078	.123	.137	.152	.837	.131
I can trust what management tells me about work practice	.153	.085	.104	.118	.845	.035	.111	.128
I feel free to offer comments and suggestions & feedback	.124	.146	.070	.101	.854	.125	.112	.062
Communication gap level	.147	.109	.054	.134	.867	.158	.136	.036
All the communication done in a scheduled way and order.	.113	.107	.071	.167	.858	.114	.076	.102
I am comfortable in my place of work	.137	.119	.044	.805	.135	.070	.138	.059
Company provides me good transportation facilities.	.080	.072	.100	.891	.126	.078	.068	.085
I have a best friend at work.	.122	.097	.069	.896	.096	.045	.096	.075
Company cares for my security and health.	.115	.072	.135	.856	.143	.102	.078	.106
The recreational activities(Theme days, picnics, contests, etc) make me look	.104	.098	.087	.079	.105	.875	.081	.105
Recreational activities play a major role in my choosing to stay at Company	.098	.050	.063	.053	.093	.919	.121	.094
Recreational facilities provided by Company are as good/better than the	.076	.082	.061	.047	.130	.899	.107	.105
Recreational Facilities leads to Employee engagement and retention	.113	.148	.187	.138	.088	.684	.162	.118

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

The result of rotated component matrix (RCM) indicates that the thirty three variables can be reduced to eight extracted components. It is also found that all the variables have significant factor loadings to only one factor and insignificant factor loadings to other extracted factors. It is also observed from the results that the significant factor loadings for each factor is found to be greater than 0.7. Hence it can be concluded from the results that structure of the extracted factors from the variables satisfies the assumptions of convergent as well as discriminant validity. Analysing the variables having significant factor loadings to different factors. These factors can be named as:

Table 5.7 List of Factors Extracted (KWEP)

Factors	**Name**
1	Work Assignments
2	Rewards and Recognition
3	Opportunities
4	Team Work
5	Immediate Supervisor
6	Communication
7	Quality of Work Life
8	Recreational Activities

Compiled by the Researcher

FACTOR 1 - WORK ASSIGNMENTS

The exploratory factor analysis (EFA) test was exercised and the factor is found **Work Assignment**. This factor concludes 5 variables and the result of these variables has shown the significant loading towards the factor work assignment. This factor tells about the job assignment given to the employees and employees think, the better the assignment allocation the better results come out most of the time. This factor consist the statement like materials and equipment's, workload, competent assignment etc. The level of internal consistency reliability was calculated with test cronbach's alpha and was measured **(0.895)** which is significant. This factor was also explained by the test of descriptive and shown in table no 5.8.

Table 5.8 Work Assignments					
Construct	Variables	Mean (S.D)	Skewness	Kurtosis	Internal Consistency Reliability
Work Assignments	I have the materials and equipment I need to do my job efficiently	4.09 (1.89)	-.144	-1.24	**0.895**
	I know what is expected of me in my job	4.16 (1.77)	-.16	-1.077	
	Workload is distributed equally throughout our department or unit	4.18 (1.78)	-.81	-1.129	
	I feel competent and fully able to handle my job	4.22 (1.77)	-.195	-1.019	
	I am proud to say that I work at this company	4.26 (1.82)	-.180	-1.046	

The descriptive test results indicated that "I am proud to say that I work at this company" has highest mean as compare to others in the factor work assignment" (4.26) and followed by the statement "I feel competent and fully able to handle my job" (4.22). The lowest score extracted was "I have the materials and equipment I need to do my job efficiently".

FACTOR 2 – REWARDS AND RECOGNITION

The second factor extracted from EFA is named as **Rewards and Recognition**. The second factor consists of four major variables as shown in table. The included variables in the factor are found to have significant loadings towards the factors. As found from the identified variables in the factor, reward and recognition is measure by the variables like opportunities to grow, challenging and training & development options available in the company. In case if the employers continuously reward the achievements of knowledge workers also indicate the policies of top management about the rewards, recognition and growth. In the study the internal consistency of the factor is estimated

with the help of Cronbach's alpha. The variables included in the factor Rewards and Recognition found to have the internal consistency reliability (as measured by cronbach's alpha) of **(0.927)** which indicates the presence of sufficient internal consistency reliability in the factor. The descriptive analysis of the variables included in the factor is also estimated. The results of the descriptive analysis of the included variables in the factor is shown below in table 5.9.

Table 5.9 Rewards and Recognition

Construct	Variables	Mean (S.D)	Skewness	Kurtosis	Internal Consistency Reliability
Rewards & Recognition	My Job responsibilities at Company allow me opportunity to do what I do best every day.	4.42 (1.69)	-.373	-.750	**0.927**
	At company I have opportunities to learn and grow.	4.49 (1.66)	-.233	-.774	
	My work is challenging.	4.63 (1.67)	-.383	-.762	
	Training and Development programmes are effective and schedule on time	4.72 (1.62)	-.450	-.758	

The descriptive test results indicated that "Training and Development programmes are effective and schedule on time" has highest mean as compare to others in the factor work assignment" (4.72) and followed by the statement "My work is challenging." (4.63) and the lowest score extracted was "My job responsibilities at Company allow me opportunity to do what I do best every day".

FACTOR 3 - OPPORTUNITIES

After applying EFA it is found that the factor **Opportunities** consists of four major variables having significant loadings towards the factors. The level of Opportunities is also perceived by their promotion opportunities, career path and learning opportunities. Opportunities in the organization hold the employees for longer periods of time and help the top management to retain them. In the study the internal consistency of the factor is estimated with the help of Cronbach's alpha. The variables included in the factor Opportunities is found to have the internal consistency reliability (as measured by cronbach's alpha) of **(0.935)** which indicates the presence of sufficient internal consistency reliability in the factor. The descriptive analysis of the variables included in the factor is also estimated. The results of the descriptive analysis of the included variables in the factor are shown below in table 5.10.

Table 5.10 Opportunities

Construct	Variables	Mean (S.D)	Skewness	Kurtosis	Internal Consistency Reliability
Opportunities	I am aware of the promotion opportunities in my company	4.42 (1.68)	-.336	-.783	**0.935**
	I have a clearly established career path at Company.	4.54 (1.67)	-.224	-.881	
	In general, promotions are handled fairly at my company	4.66 (1.64)	-.440	-.751	
	In the last year, I have had opportunities to learn and Grow	4.75 (1.61)	-.396	-.786	

The results of descriptive test results indicated that "In the last year, I have had opportunities to learn and Grow" has highest mean as compare to others in the factor work assignment" (4.75) and followed by the statement "In general, promotions are

handled fairly at my company." (4.66) and the lowest score extracted was "I am aware of the promotion opportunities in my company".

FACTOR 4 - TEAM WORK

The third factor extracted from the factor analysis is **Team Work.** This factor consists of four variables. These variables have significantly loadings towards the factors. After applying the EFA the result found that the consisting variables regarding Team Work is important to the proper functioning of the organization these variables also motivates employees to stay for longer periods of time which enhance the productivity level of the organization to the maximum. The statement consisting like of helping each other, behaviour of co-workers and enjoying with co-workers. These variable also have a significant of the retention and engagement of knowledge workers.

In the level of internal consistency for the factor was determined with the help of Cronbach's alpha test. **Team Work** factor variables were found internal consistency reliability of **(0.930)** which state and indicates that internal consistency reliability is sufficient and acceptable in the factor. The descriptive analysis postulated the following analysis of statement as under in table 5.11.

Table 5.11 Team Work

Construct	Variables	Mean (S.D)	Skewness	Kurtosis	Internal Consistency Reliability
Team Work	The people I work with help each other when needed.	4.52 (1.63)	-.453	-.608	**0.930**
	My co-workers and I share information and new ideas.	4.53 (1.61)	-.165	-.912	
	My co-workers do their best.	4.57 (1.60)	-.426	-.698	
	I enjoy working with my co-Workers.	4.62 (1.45)	-.382	-.582	

The results of descriptive test results indicated that "I enjoy working with my co-Workers." has highest mean as compare to others in the factor work assignment" (4.62) and followed by the statement "My co-workers do their best." (4.57) and the lowest score extracted was "The people I work with help each other when needed".

FACTOR 5 - IMMEDIATE SUPERVISOR

The EFA test extracted and it was found that the factor **Immediate Supervisor** consists of four variables and the result of EFA stated that the all three variables has a significant loading on the factor Benefits programmes. The factor is perceived by the variables like team leader, leaders approach, problem solving and the communication. These variables have to be managed properly as they are strongly associated with factor Immediate Supervisor. The internal level of consistency reliability is extracted with use of cronbach's alpha test **(0.904).** The factor Benefits programmes was also explained by the descriptive study in the table no. 5.12.

Table 5.12 Immediate Supervisor

Construct	Variables	Mean (S.D)	Skewness	Kurtosis	Internal Consistency Reliability
Immediate Supervisor	My Team Leader treats me fairly	4.54 (1.79)	-.437	-.866	**0.904**
	I can freely approach my Team Leader with problems	4.65 (1.73)	-.378	-.896	
	My Team Leader handles my work-related issues satisfactorily	4.45 (1.66)	-.280	-.993	
	There is good communication between me and my superior.	4.66 (1.62)	-.291	-.908	

The results of descriptive test results indicated that "There is good communication between me and my superior." (4.66) and followed by the statement "I can freely

approach my Team Leader with problems." (4.65) and the lowest score extracted was "My Team Leader treats me fairly".

FACTOR 6- COMMUNICATION LEVEL

The third factor extracted from the factor analysis is **Communication level**. This factor consists of 4 variables. These variables have significantly loadings towards the factors. After applying the EFA the result found that the consisting variables regarding Communication motivates employees to stay for longer periods of time which enhance the productivity level of the organization to the maximum. These variables also have a significant of the retention and engagement of knowledge workers.

In the level of internal consistency for the factor was determined with the help of Cronbach's alpha test. In factor Communication level, the variables are found suitable for internal consistency reliability of **(0.924)** which states and indicates that internal consistency reliability is sufficient and acceptable in the factor. The descriptive analysis postulated the following analysis of statement as under in table 5.13.

Table 5.13 Communication Level

Construct	Variables	Mean (S.D)	Skewness	Kurtosis	Internal Consistency Reliability
Communication Level	I can trust what management tells me about work practice	4.45 (1.69)	-.290	-.879	**0.924**
	I feel free to offer comments and suggestions & feedback	4.77 (1.45)	-.234	-.811	
	Communication gap level	4.75 (1.52)	-.423	-.588	
	All the communication done in a scheduled way and order.	4.79 (1.52)	-.441	-.68	

The results of descriptive test results indicated that "All the communication done in a scheduled way and order." (4.79) and followed by the statement "I feel free to offer comments and suggestions & feedback". (4.77) and the lowest score extracted was "I can trust what management tells me about work practice".

FACTOR 7- QUALITY OF WORK LIFE

After applying EFA it is found that the factor **Quality of Work Life** consist of four major variables having significant loadings towards the factors. The level of Quality of Work Life is also perceived by place of work quality, transportation facility, health & security and friends at work place helps the organization hold the employees for longer periods of time and help the top management to retain them. In the study the internal consistency of the factor is estimated with the help of Cronbach's alpha. The variables included in the factor Quality of Work Life are found to have the internal consistency reliability (as measured by cronbach's alpha) of **(0.921)** which indicates the presence of sufficient internal consistency reliability in the factor. The descriptive analysis of the variables included in the factor is also estimated. The results of the descriptive analysis of the included variables in the factor are shown below in table 5.14.

Table 5.14 Quality of Work Life

Construct	Variables	Mean (S.D)	Skewness	Kurtosis	Internal Consistency Reliability
Quality of Work Life	I am comfortable in my place of work	4.62 (1.70)	-.335	-.886	**0.921**
	Company provides me good transportation facilities.	4.65 (1.58)	-.214	-.876	
	I have a best friend at work.	4.72 (1.57)	-.410	-.767	
	Company cares for my security and health.	4.73 (1.58)	-.336	-.713	

The results of descriptive test results indicated that “Company cares for my security and health” (4.73) and followed by the statement “I have a best friend at work”. (4.72) and the lowest score extracted was “I am comfortable in my place of work”.

FACTOR 8 - RECREATIONAL ACTIVITIES

The third factor extracted from the factor analysis is **Recreational Activities**. This factor consist of 4 variables. These variables have significantly loadings towards the factors. After applying the EFA the result found that the consisting variables regarding Recreational Activities motivates employees to stay for longer periods of time which enhance the productivity level of the organization to the maximum. These variable also have a significant of the retention and engagement of knowledge workers. This factor consist of variable like facilities provided by the organization Theme days, picnics, contests etc. In the level of internal consistency for the factor was determined with the help of Cronbach’s alpha test. The variables in the factor, are found suitable for the internal consistency reliability of **(0.910)** which state and indicates that internal consistency reliability is sufficient and acceptable in the factor. The descriptive analysis postulated the following analysis of statement as under in table 5.15.

Table 5.15 Recreational Activities

Construct	Variables	Mean (S.D)	Skewness	Kurtosis	Internal Consistency Reliability
Recreational Activities	The recreational activities(Theme days, picnics, contests, etc.) make me look forward to work	4.38 (1.71)	-.293	-.745	**0.910**
	Recreational activities play a major role in my choosing to stay at Company	4.45 (1.66)	-.204	-.949	
	Recreational facilities provided by Company are as good/better than the peer companies.	4.65 (1.64)	-.345	-.929	
	Recreational Facilities leads to Employee Retention	4.79 (1.44)	-.241	-.909	

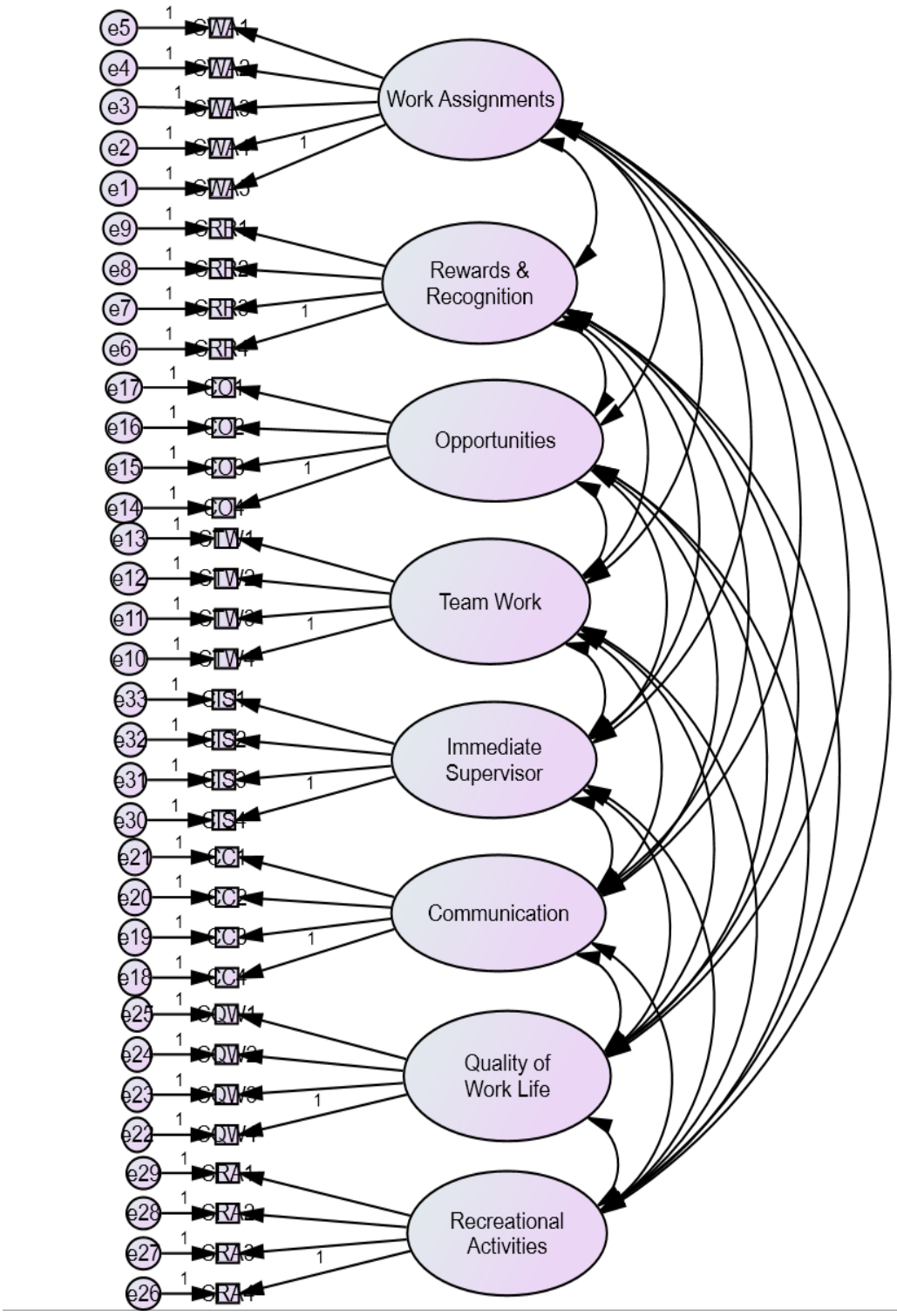
The results of descriptive test results indicated that “Recreational Facilities leads to Employee Retention” (4.79) and followed by the statement “Recreational facilities provided by Company are as good/better than the peer companies”. (4.65) and the lowest score extracted was “The recreational activities (Theme days, picnics, contests, etc.) make me look forward to work”.

5.2.2 Validity analysis of the identified factors using confirmatory factor analysis (CFA)

EFA is used in the study in order to identify the latent factors extracted from the variables used in the questionnaire. The EFA method is used for scale development in order to achieve the objectives of the study. The purpose of the study is to analyse the impact of knowledge workers management strategies on the employee’s engagement as well as their retention in the selected organisations. Before applying SEM to achieve the objective it is required to test the construct validity of the identified scale of knowledge workers engagement practices. Confirmatory factor analysis (hereafter CFA) is used to test the construct validity of the scale developed (in order to measure knowledge workers engagement practices) in the process of applying EFA. Construct validity which includes both convergent as well as discriminant validity of the construct used in the scale can be tested with the help of CFA. The convergent validity of the construct represent that how much the item/variables used in the study represent the construct (or factor) whereas discriminant validity analyse the level of cross loadings of the variables of one construct with the variables of other construct. The convergent validity of the constructs can be tested with the help of composite reliability (CR) statistics and average variance extracted (AVE) measure. The composite reliability of all the constructs should be greater than 0.7 and average variance extracted should also be greater than 0.5. In addition to this the composite reliability statistics of each construct should also be greater than its average variance extracted measure. The composite reliability represents of a construct represents the level of consistency reliability within the variables used in the construct whereas average variance extracted explains the variance of the used variables used which can be explained by the related construct. In order to ensure the presence of discriminant validity the average variance extracted measure of each construct should be greater than average shared variance

(ASV) measure as well as maximum shared variance (MSV) measure of each construct. The confirmatory factor analysis is represented by the figure and tables below:

Figure 5.7 Confirmatory Analysis



Compiled by the Researcher Analysis

Table 5.16 Discriminant validity												
	CR	**AVE**	**MSV**	**MaxR**	**RA**	**WA**	**RR**	**TW**	**OPR**	**COM**	**QWL**	**IS**
RA	0.9	0.7	0.10	0.94	**0.8**							
WA	0.8	0.6	0.14	0.96	0.2	**0.7**						
RR	0.9	0.7	0.12	0.97	0.2	0.2	**0.8**					
TW	0.8	0.6	0.12	0.98	0.2	0.2	0.3	**0.8**				
OP	0.9	0.7	0.13	0.98	0.2	0.3	0.3	0.3	**0.8**			
CO	0.9	0.7	0.14	0.98	0.3	0.3	0.2	0.2	0.3	**0.87**		
QW	0.9	0.7	0.12	0.99	0.2	0.3	0.2	0.2	0.2	0.35	**0.86**	
IS	0.8	0.6	0.11	0.99	0.3	0.3	0.2	0.2	0.2	0.34	0.28	**0.8**

Table 5.17 Measurement Model				
CMIN/DF	**GFI**	**RMR**	**CFI**	**RMSEA**
1.43	.925	.099	.984	.029

The table indicates the goodness of fit indices of the measurement model. The fitness indices of the CFA model indicates that the CFA is statistically fit and the different constructs can be used in the SEM.

5.2.3 Impact of demographic profile on knowledge workers engagement practices (ANOVA BASED)

In the IT industry the employees belongs to different category of companies, such as small, medium and top level companies decided on the basis of the turnover in the study. The employee with different category of companies may have different exposure, and working culture in the companies. Their understanding of Knowledge workers engagement practices (KWEP) by the companies may be different. In the study the efforts is done in order to analyse the difference in the perceptions of employees working with selected organisations in India with respect to the different knowledge workers engagement practices adopted by the companies. One way analysis of variance (ANOVA) is applied in the study to test the presence of difference in the perception of

employees of different companies. The null hypothesis of one way ANOVA is mentioned below:

5.2.4 Perception towards Knowledge Workers engagement practices

After the analysis of literature review and advice from experts it is found that group of companies, experience with the current organization and age of the respondents are important factors in the context of this study. The factors affects the engagement of knowledge workers in the organisation. For more clarification of these three factors, ANOVA test is applied to see the perception of knowledge workers in engagement practices adopted by the organization.

Result of ANOVA revealed the perception of knowledge workers towards the knowledge workers engagement practices, on the basis of group of company, experience with current organization and age of the respondent. Result of Analysis of variance indicates that the probability value of **f - statistic** for all the factors representing the knowledge workers engagement practices adopted by the companies is found to be less than 5 percent level of significant.

5.2.5 On the basis of the Group of companies

H_0: The perception of the knowledge worker's working with different category of companies towards knowledge worker's engagement practices adopted by their employer is same.

Table 5.18 Work Assignments

Construct Name	Groups	Mean (S.D)	F-Stat (P- Value)
Work Assignment	Top	4.676 (1.473)	06.701 (.001)
	Medium	4.188 (1.540)	
	Small	4.160 (1.343)	

The result of **Work Assignment** indicates that the probability value of f statistic for all the factors representing the knowledge workers engagement practices adopted by the

companies are found to be less than 5 percent level of significant. Hence, the null hypothesis that the perception of employees with different group of companies towards knowledge workers engagement practices is same cannot be accepted. It is observed that the mean score of employees with top companies is found to be higher as compared to the employees of medium and small companies. It means the employees in the medium and small companies perceive that there exists low level of knowledge workers engagement practices as compared to the employees of top companies.

Table 5.19 Rewards and Recognition

Construct Name	Groups	Mean (S.D)	F-Stat (P- Value)
Rewards and Recognition	Top	4.890 (1.503)	07.901 (.000)
	Medium	4.497 (1.337)	
	Small	4.278 (1.437)	

The result of **Rewards and Recognition** indicates that the probability value of f statistic for all the factors representing the knowledge workers engagement practices adopted by the companies is found to be less than 5 percent level of significant. Hence, the null hypothesis that the perception of employees with different group of companies towards knowledge workers engagement practices is same cannot be accepted. It is observed that the mean score of employees with top companies is found to be higher as compared to the employees of medium and small companies. It means the employees in the medium and small companies perceive that there exists low level of knowledge workers engagement practices as compared to the employees of top companies.

Table 5.20 Opportunities			
Construct Name	**Groups**	**Mean (S.D)**	**F-Stat (P- Value)**
Opportunities	Top	4.745 (1.454)	05.127 (.006)
	Medium	4.467 (1.395)	
	Small	4.252 (1.383)	

The result of **Opportunities** indicates that the probability value of f statistic for all the factors representing the knowledge workers engagement practices adopted by the companies is found to be less than 5 percent level of significant. Hence, the null hypothesis that the perception of employees with different group of companies towards knowledge workers engagement practices is same cannot be accepted. It is observed that the mean score of employees with top companies is found to be higher as compared to the employees of medium and small companies. It means the employees in the medium and small companies perceive that there exists low level of knowledge workers engagement practices as compared to the employees of top companies.

Table 5.21 Team Work			
Construct Name	**Groups**	**Mean (S.D)**	**F-Stat (P- Value)**
Team Work	Top	4.629 (1.311)	04.144 (.016)
	Medium	4.466 (1.230)	
	Small	4.228 (1.290)	

The result of **Team Work** indicates that the probability value of f statistic for all the factors representing the knowledge workers engagement practices adopted by the companies is found to be less than 5 percent level of significant. Hence, the null

hypothesis that the perception of employees with different group of companies towards knowledge workers engagement practices is same cannot be accepted. It is observed that the mean score of employees with top companies is found to be higher as compared to the employees of medium and small companies. It means the employees in the medium and small companies perceive that there exists low level of knowledge workers engagement practices as compared to the employees of top companies.

Table 5.22 Immediate Supervisor

Construct Name	Groups	Mean (S.D)	F-Stat (P- Value)
Immediate Supervisor	Top	4.837 (1.276)	14.674 (.000)
	Medium	4.297 (1.306)	
	Small	4.088 (1.341)	

The result of **Immediate Supervisor** indicates that the probability value of f statistic for all the factors representing the knowledge workers engagement practices adopted by the companies are found to be less than 5 percent level of significant. Hence, the null hypothesis that the perception of employees with different group of companies towards knowledge workers engagement practices is same cannot be accepted. It is observed that the mean score of employees with top companies is found to be higher as compared to the employees of medium and small companies. It means the employees in the medium and small companies perceive that there exists low level of knowledge workers engagement practices as compared to the employees of top companies.

Table 5.23 Communication			
Construct Name	**Groups**	**Mean (S.D)**	**F-Stat (P- Value)**
Communication	Top	4.738 (1.320)	09.601 (.000)
	Medium	4.570 (1.160)	
	Small	4.143 (1.331)	

The result of **Communication** indicates that the probability value of f statistic for all the factors representing the knowledge workers engagement practices adopted by the companies are found to be less than 5 percent level of significant. Hence, the null hypothesis that the perception of employees with different group of companies towards knowledge workers engagement practices is same cannot be accepted. It is observed that the mean score of employees with top companies is found to be higher as compared to the employees of medium and small companies. It means the employees in the medium and small companies perceive that there exists low level of knowledge workers engagement practices as compared to the employees of top companies.

Table 5.24 Quality of Work Life			
Construct Name	**Groups**	**Mean (S.D)**	**F-Stat (P- Value)**
Quality of Work Life	Top	4.721 (1.278)	09.379 (.000)
	Medium	4.399 (1.328)	
	Small	4.106 (1.283)	

The result of **Quality of Work Life** indicates that the probability value of f statistic for all the factors representing the knowledge workers engagement practices adopted by the companies are found to be less than 5 percent level of significant. Hence, the null

hypothesis that the perception of employees with different group of companies towards knowledge workers engagement practices is same cannot be accepted. It is observed that the mean score of employees with top companies is found to be higher as compared to the employees of medium and small companies. It means the employees in the medium and small companies perceive that there exists low level of knowledge workers engagement practices as compared to the employees of top companies.

Table 5.25 Recreational Activities

Construct Name	Groups	Mean (S.D)	F-Stat (P- Value)
Recreational Activities	Top	2.960 (.961)	02.092 (.125)
	Medium	2.793 (.920)	
	Small	2.771 (.898)	

The result of **Recreational Activities Life** indicates that the probability value of f statistic for all the factors representing the knowledge workers engagement practices adopted by the companies is found to be less than 5 percent level of significant. Hence, the null hypothesis that the perception of employees with different group of companies towards knowledge workers engagement practices is same cannot be accepted. It is observed that the mean score of employees with top companies is found to be higher as compared to the employees of medium and small companies. It means the employees in the medium and small companies perceive that there exists low level of knowledge workers engagement practices as compared to the employees of top companies.

5.2.6 Experience with Current Organization

H_0: The perception of the knowledge worker's working with the current organization in terms of experience towards knowledge worker's engagement practices adopted by their employer is same.

Table 5.26 Work Assignments			
Construct Name	**Groups**	**Mean (S.D)**	**F-Stat (P- Value)**
Work Assignments	> 3 Years	3.844 (1.440)	19.905 (.000)
	3-5 Years	4.111 (1.435)	
	< 5 Years	4.779 (1.395)	

The result of **Work Assignment** indicates that the probability value of f statistic for all the factors representing the knowledge workers engagement practices adopted by the companies are found to be less than 5 percent level of significant. The perception of employees working with current organization experience towards knowledge workers engagement practices cannot be accepted. It is observed that the mean score of employees with more than 5 Years of experience in current company is found to be higher as compared to the employees working for less than 5 Years in current organization. It means the employees in the less than 5 Years of experience in current company perceive that there exists low level of knowledge workers engagement practices as compared to the employees having more than 5 Years of experience.

Table 5.27 Rewards and Recognition			
Construct Name	**Groups**	**Mean (S.D)**	**F-Stat (P- Value)**
Rewards and Recognition	> 3 Years	3.941 (1.412)	25.545 (.000)
	3-5 Years	4.377 (1.372)	
	< 5 Years	5.019 (1.372)	

The result of **Rewards and Recognition** indicates that the probability value of f statistic for all the factors representing the knowledge workers engagement practices adopted by the companies is found to be less than 5 percent level of significant. The perception

of employees working with current organization experience towards knowledge workers engagement practices cannot be accepted. It is observed that the mean score of employees with more than 5 Years of experience in current company is found to be higher as compared to the employees working for less than 5 Years in current organization. It means the employees in the less than 5 Years of experience in current company perceive that there exists low level of knowledge workers engagement practices as compared to the employees having more than 5 Years of experience.

Table 5.28 Opportunities

Construct Name	Groups	Mean (S.D)	F-Stat (P- Value)
Opportunities	> 3 Years	3.831 (1.412)	23.346 (.000)
	3-5 Years	4.430 (1.390)	
	< 5 Years	4.886 (1.318)	

The result of **Opportunities** indicates that the probability value of f statistic for all the factors representing the knowledge workers engagement practices adopted by the companies are found to be less than 5 percent level of significant. The perception of employees working with current organization experience towards knowledge workers engagement practices cannot be accepted. It is observed that the mean score of employees with more than 5 Years of experience in current company is found to be higher as compared to the employees working for less than 5 Years in current organization. It means the employees in the less than 5 Years of experience in current company perceive that there exists low level of knowledge workers engagement practices as compared to the employees having more than 5 Years of experience.

Table 5.29 Team Work			
Construct Name	**Groups**	**Mean (S.D)**	**F-Stat (P- Value)**
Team Work	> 3 Years	3.856 (1.269)	25.106 (.000)
	3-5 Years	4.339 (1.260)	
	< 5 Years	4.830 (1.181)	

The result of **Team Work** indicates that the probability value of f statistic for all the factors representing the knowledge workers engagement practices adopted by the companies are found to be less than 5 percent level of significant. The perception of employees working with current organization experience towards knowledge workers engagement practices cannot be accepted. It is observed that the mean score of employees with more than 5 Years of experience in current company is found to be higher as compared to the employees working for less than 5 Years in current organization. It means the employees in the less than 5 Years of experience in current company perceive that there exists low level of knowledge workers engagement practices as compared to the employees having more than 5 Years of experience.

Table 5.30 Immediate Supervisor			
Construct Name	**Groups**	**Mean (S.D)**	**F-Stat (P- Value)**
Immediate Supervisor	> 3 Years	3.866 (1.267)	24.808 (.000)
	3-5 Years	4.223 (1.317)	
	< 5 Years	4.840 (1.267)	

The result of **Immediate Supervisor** that the probability value of f statistic for all the factors representing the knowledge workers engagement practices adopted by the companies is found to be less than 5 percent level of significant. The perception of

employees working with current organization experience towards knowledge workers engagement practices cannot be accepted. It is observed that the mean score of employees with more than 5 Years of experience in current company is found to be higher as compared to the employees working for less than 5 Years in current organization. It means the employees in the less than 5 Years of experience in current company perceive that there exists low level of knowledge workers engagement practices as compared to the employees having more than 5 Years of experience.

Table 5.31 Communication

Construct Name	Groups	Mean (S.D)	F-Stat (P- Value)
Communication	> 3 Years	3.943 (1.303)	19.158 (.000)
	3-5 Years	4.431 (1.172)	
	< 5 Years	4.818 (1.275)	

The result of **Communication** that the probability value of f statistic for all the factors representing the knowledge workers engagement practices adopted by the companies is found to be less than 5 percent level of significant. The perception of employees working with current organization experience towards knowledge workers engagement practices cannot be accepted. It is observed that the mean score of employees with more than 5 Years of experience in current company is found to be higher as compared to the employees working for less than 5 Years in current organization. It means the employees in the less than 5 Years of experience in current company perceive that there exists low level of knowledge workers engagement practices as compared to the employees having more than 5 Years of experience.

Table 5.32 Quality of Work Life			
Construct Name	**Groups**	**Mean (S.D)**	**F-Stat (P- Value)**
Quality of Work Life	> 3 Years	3.820 (1.281)	22.256 (.000)
	3-5 Years	4.348 (1.269)	
	< 5 Years	4.774 (1.254)	

The result of **Quality of Work Life** that the probability value of f statistic for all the factors representing the knowledge workers engagement practices adopted by the companies is found to be less than 5 percent level of significant. The perception of employees working with current organization experience towards knowledge workers engagement practices cannot be accepted. It is observed that the mean score of employees with more than 5 Years of experience in current company is found to be higher as compared to the employees working for less than 5 Years in current organization. It means the employees in the less than 5 Years of experience in current company perceive that there exists low level of knowledge workers engagement practices as compared to the employees having more than 5 Years of experience.

Table 5.33 Recreational Activities			
Construct Name	**Groups**	**Mean (S.D)**	**F-Stat (P- Value)**
Recreational Activities	> 3 Years	2.490 (.917)	19.309 (.000)
	3-5 Years	2.744 (.931)	
	< 5 Years	3.101 (.861)	

The result of **Recreational Activities** that the probability value of f statistic for all the factors representing the knowledge workers engagement practices adopted by the

companies is found to be less than 5 percent level of significant. The perception of employees working with current organization experience towards knowledge workers engagement practices cannot be accepted. It is observed that the mean score of employees with more than 5 Years of experience in current company is found to be higher as compared to the employees working for less than 5 Years in current organization. It means the employees in the less than 5 Years of experience in current company perceive that there exists low level of knowledge workers engagement practices as compared to the employees having more than 5 Years of experience.

5.2.7 Age of the Respondents

H_0: The perception of the knowledge worker's about the age and its impact on knowledge workers engagement practices adopted by their employer is same.

Table 5.34 Work Assignments

Construct Name	Groups	Mean (S.D)	F-Stat (P- Value)
Work Assignments	< 30 Years	3.726 (1.445)	18.139 (.000)
	30- 40 Years	3.927 (1.407)	
	41- 45 Years	4.645 (1.304)	
	>45 Years	4.868 (1.445)	

The result of **Work Assignments** indicates that the probability value of f statistic for all the factors representing the knowledge workers engagement practices adopted by the companies is found to be less than 5 percent level of significant. The perception of employee's age towards knowledge workers engagement practices adopted by their employer is same cannot be accepted. It is observed that the mean score of employee's age more than 45 years is found to be higher as compared to the employees having age of less than 45 years. It means the employee's age between 30 to 45 years perceive that there exists low level of knowledge workers engagement practices as compared to the employees aging more than 45 years.

Table 5.35 Rewards and Recognition			
Construct Name	**Groups**	**Mean (S.D)**	**F-Stat (P- Value)**
Rewards and Recognition	< 30 Years	3.823 (1.401)	16.659 (.000)
	30- 40 Years	4.317 (1.315)	
	41- 45 Years	4.645 (1.473)	
	>45 Years	5.135 (1.375)	

The result of **Rewards and Recognition** indicates that the probability value of f statistic for all the factors representing the knowledge workers engagement practices adopted by the companies is found to be less than 5 percent level of significant. The perception of employee's age towards knowledge workers engagement practices adopted by their employer is same cannot be accepted. It is observed that the mean score of employee's age more than 45 years is found to be higher as compared to the employees having age of less than 45 years. It means the employee's age between 30 to 45 years perceive that there exists low level of knowledge workers engagement practices as compared to the employees aging more than 45 years.

Table 5.36 Opportunities			
Construct Name	**Groups**	**Mean (S.D)**	**F-Stat (P- Value)**
Opportunities	< 30 Years	3.935 (1.421)	14.642 (.000)
	30- 40 Years	4.141 (1.417)	
	41- 45 Years	4.716 (1.248)	
	>45 Years	4.976 (1.380)	

The result of **Opportunities** indicates that the probability value of f statistic for all the factors representing the knowledge workers engagement practices adopted by the companies is found to be less than 5 percent level of significant. The perception of employee's age towards knowledge workers engagement practices adopted by their employer is same cannot be accepted. It is observed that the mean score of employee's age more than 45 years is found to be higher as compared to the employees having age of less than 45 years. It means the employee's age between 30 to 45 years perceives that there exists low level of knowledge workers engagement practices as compared to the employees aging more than 45 years.

Table 5.37 Team Work

Construct Name	Groups	Mean (S.D)	F-Stat (P- Value)
Team Work	< 30 Years	3.853 (1.367)	18.286 (.000)
	30- 40 Years	4.178 (1.223)	
	41- 45 Years	4.813 (1.224)	
	>45 Years	5.005 (1.149)	

The result of **Team Work** indicates that the probability value of f statistic for all the factors representing the knowledge workers engagement practices adopted by the companies is found to be less than 5 percent level of significant. The perception of employee's age towards knowledge workers engagement practices adopted by their employer is same cannot be accepted. It is observed that the mean score of employee's age more than 45 years is found to be higher as compared to the employees having age of less than 45 years. It means the employee's age between 30 to 45 years perceive that there exists low level of knowledge workers engagement practices as compared to the employees aging more than 45 years.

Table 5.38 Immediate Supervisor			
Construct Name	**Groups**	**Mean (S.D)**	**F-Stat (P- Value)**
Immediate Supervisor	< 30 Years	3.762 (1.246)	16.364 (.000)
	30- 40 Years	4.143 (1.340)	
	41- 45 Years	4.566 (1.205)	
	>45 Years	4.913 (1.303)	

The result of **Immediate Supervisor** indicates that the probability value of f statistic for all the factors representing the knowledge workers engagement practices adopted by the companies is found to be less than 5 percent level of significant. The perception of employee's age towards knowledge workers engagement practices adopted by their employer is same cannot be accepted. It is observed that the mean score of employee's age more than 45 years is found to be higher as compared to the employees having age of less than 45 years. It means the employee's age between 30 to 45 years perceive that there exists low level of knowledge workers engagement practices as compared to the employees aging more than 45 years.

Table 5.39 Communication			
Construct Table 5.39 Communication Name	**Groups**	**Mean (S.D)**	**F-Stat (P- Value)**
Communication	< 30 Years	3.781 (1.239)	15.887 (.000)
	30- 40 Years	4.303 (1.244)	
	41- 45 Years	4.606 (1.243)	
	>45 Years	4.947 (1.235)	

The result of **Communication** indicates that the probability value of f statistic for all the factors representing the knowledge workers engagement practices adopted by the companies is found to be less than 5 percent level of significant. The perception of employee's age towards knowledge workers engagement practices adopted by their employer is same cannot be accepted. It is observed that the mean score of employee's age more than 45 years is found to be higher as compared to the employees having age of less than 45 years. It means the employee's age between 30 to 45 years perceive that there exists low level of knowledge workers engagement practices as compared to the employees aging more than 45 years.

Table 5.40 Quality of Work Life

Construct Name	Groups	Mean (S.D)	F-Stat (P- Value)
Quality of Work Life	< 30 Years	3.681 (1.235)	19.348 (.000)
	30- 40 Years	4.176 (1.292)	
	41- 45 Years	4.521 (1.300)	
	>45 Years	4.952 (1.167)	

The result of **Quality of Work Life** indicates that the probability value of f statistic for all the factors representing the knowledge workers engagement practices adopted by the companies is found to be less than 5 percent level of significant. The perception of employee's age towards knowledge workers engagement practices adopted by their employer is same cannot be accepted. It is observed that the mean score of employee's age more than 45 years is found to be higher as compared to the employees having age of less than 45 years. It means the employee's age between 30 to 45 years perceive that there exists low level of knowledge workers engagement practices as compared to the employees aging more than 45 years.

Table 5.41 Recreational Activities			
Construct Name	**Groups**	**Mean (S.D)**	**F-Stat (P- Value)**
Recreational Activities	< 30 Years	2.410 (.928)	15.978 (.000)
	30- 40 Years	2.690 (.912)	
	41- 45 Years	42.850 (.907)	
	>45 Years	3.222 (.830)	

The result of **Recreational Activities** indicates that the probability value of f statistic for all the factors representing the knowledge workers engagement practices adopted by the companies is found to be less than 5 percent level of significant. The perception of employee's age towards knowledge workers engagement practices adopted by their employer is same cannot be accepted. It is observed that the mean score of employee's age more than 45 years is found to be higher as compared to the employees having age of less than 45 years. It means the employee's age between 30 to 45 years perceive that there exists low level of knowledge workers engagement practices as compared to the employees aging more than 45 years.

5.3 DIMENSIONS OF KNOWLEDGE WORKERS RETENTION PRACTICES

This section will explain the theoretical background related on knowledge workers retention practice (KWRP) in general. It will discuss the different factors affecting the knowledge workers retention practices in IT sector. The factors are identified with the help of exploratory factor analysis applied on different variables/variables used in the questionnaire. This section also discussed analyse the reliability as well as validity of the identified factors of knowledge workers retention practices in IT sector. The validity analysis is done with the help of Confirmatory Factor Analysis.

To achieve the second objective, "**To examine the factors influencing the retention practices of Knowledge workers in Indian IT industry".** Following steps were taken. In the research study, the primary data is collected from the employees working with different IT companies is collected in order to study their perception towards different

statement related to KW retention practices. The data is collected with the help of structured questionnaire which was further validated. The IT employees selected for the study were asked to rate different variables related to organization citizenship behaviour (OCB) in the scale of 1-7, where 1 stands for 'strongly disagree' and 7 stands for 'strongly agree'. In total, there were five hundred one responses are collected with the help of the questionnaire. Before doing the further statistical analysis the reliability of the variables is analysed. This study is focussed on the study of knowledge workers management practices adopted by IT companies in India.

In order to measure different aspects of knowledge workers retention practices adopted by IT companies in India. Twenty Nine variables related to different knowledge workers retention practices adopted by different IT companies in India are included in the questionnaire on the basis of the rigorously studied research papers.

S No.	**Table 5.42 Variables (Retention Practices)**
$V1_R$	I am proud to say I work for my organization
$V2_R$	I am currently considering leaving the Company.
$V3_R$	I am planning to continue my career with my company for at least 5 more years.
$V4_R$	Company provides me with job security.
$V5_R$	I would recommend my company as an employer to my friends.
$V6_R$	I am satisfied with senior leadership's vision for this site.
$V7_R$	I feel my supervisor cares about me as a person and as a professional.
$V8_R$	My immediate supervisor at company is effective at managing our work group.
$V9_R$	My second level manager is effective in his or her role.
$V10_R$	My salary is competitive with others who have similar responsibilities within the company.
$V11_R$	My salary is competitive with similar jobs at other companies.
$V12_R$	I am satisfied with the pay I receive at company
$V13_R$	I receives perks and incentives for assignment completion

$V14_R$	I am satisfied with the health and welfare benefits programs offered by company
$V15_R$	I am satisfied with the retirement benefits programs offered by company.
$V16_R$	I am satisfied with the amount of paid time off offered by company.
$V17_R$	Work schedules provides me a balance to meet work & personal needs
$V18_R$	My workload is such that I can do my best every day.
$V19_R$	I am satisfied with the overall work life balance at company
$V20_R$	Company provides me the materials and equipment to do my job right.
$V21_R$	My physical space at company allows me to work efficiently.
$V22_R$	Healthy and hygienic working conditions.
$V23_R$	I have the opportunity to give my opinion on matters that are important to me.
$V24_R$	My workgroup experience at company is positive.
$V25_R$	I am satisfied with the encouragement & professional respect I receive at company.
$V26_R$	My job responsibilities at Company allow me opportunity to do what I do best every day.
$V27_R$	At company I have opportunities to learn and grow
$V28_R$	My work is challenging and inspire me to do well
$V29_R$	Training and Development programmes are effective and schedule on time
By Researcher Analysis	

In order to analyse and explore the latent variables, exploratory factor analysis (EFA) statistical method is applied. The EFA helps in identifying the correlation relationship among the variable considered for the study. The EFA statistical method analyse the correlation relationship between all the pairs of variables considered in the study and try to reduce the variables into few significant latent variables. These latent variables are known as factors. These latent factors individually represent a group of variables having significant correlation between them. Exploratory Factor analysis (EFA) requires the fulfilment of few assumptions. The assumptions of EFA include the

availability of sampling adequacy and presence of significant correlations between the different pair variables considered for the study. The Kaiser-Meyer-Olkin Measure (KMO) as well as Bartlett's test of Sphericity is applied in the study in order to test the presence of required sampling adequacy and the correlation structure between different pair of variables. The statistical result of KMO measures of sampling adequacy and Bartlett test of Sphericity is shown below in Table 5.43.

Table 5.43 KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.910
Bartlett's Test of Sphericity	Approx. Chi-Square	11945.328
	df	406
	Sig.	.000

The statistical result of KMO test indicates that the KMO statistic is found to be **0.910** which indicates the presence of required sampling adequacy in the data set collected in the study. The KMO value of 0.910 also represents the adequacy of enough variations in the responses against the variables which is a necessary condition to apply EFA. Hence it is confirmed that sample adequacy is present in the dataset. The Bartlett's test of Sphericity indicates the existence of significant correlation relationship between the different pair of variables selected for factor analysis. The null hypothesis of the Bartlett test assumes that the correlation matrix indicating the coefficient of correlation between all pair of variables is an identity matrix. The results of Bartlett test indicate that p-value of Chi-square statistic is found to be less than 5 percent level of significance. Thus, with ninety five percent confidence level it can be concluded that the correlation matrix representing the coefficient of Pearson correlation is not an identity matrix. Hence it can be concluded that there exist significant correlations between different pair of variables which is required in order to apply EFA.

Table 5.44 represents the communalities of included variables before and after the factor extraction. The initial communality (before extraction) is always assumed to be 1. However, after factor extraction the communality will depend upon the amount of variance available for the analysis of the selected variable. Individually 100 percent variance is available for analyzing the variables/variables however after factors are

extracted same variance is lost in the process. Hence it is required to analyze the remaining variance available for the analysis. The communality of the variable as shown in the table 5.44 indicates the proportion of variance explained by the variables after extraction by factor analysis.

Table 5.44 Communalities

	Initial	Extraction
I would recommend my company as an employer to my friends.	1.000	.750
I am proud to say I work for my company	1.000	.593
I am planning to continue my career with my company for at least 5 more years.	1.000	.674
I am satisfied with senior leadership's vision for this site.	1.000	.742
Company provides me with job security.	1.000	.780
I am currently considering leaving the Company.	1.000	.576
I am satisfied with the pay I receive at company	1.000	.742
My salary is competitive with others who have similar responsibilities within the company.	1.000	.729
My salary is competitive with similar jobs at other companies.	1.000	.689
At company I have opportunities to learn and grow.	1.000	.762
I receives perks and incentives for assignment completion	1.000	.781
My work is challenging.	1.000	.740
My job responsibilities at Company allow me opportunity to do what I do best every day.	1.000	.686
I am satisfied with the overall work life balance at company	1.000	.801
My physical space at company allows me to work efficiently.	1.000	.750
Work schedules provides me a balance to meet work & personal needs	1.000	.580
Company provides me the materials and equipment to do my job right.	1.000	.812

My workload is such that I can do my best every day.	1.000	.757
Healthy and hygienic working conditions.	1.000	.733
My workgroup experience at company is positive.	1.000	.859
I am satisfied with the encouragement & professional respect I receive at company.	1.000	.824
I have the opportunity to give my opinion on matters that are important to me.	1.000	.819
My immediate supervisor at company is effective at managing our work group.	1.000	.731
I feel my supervisor cares about me as a person and as a professional.	1.000	.662
My second level manager is effective in his or her role.	1.000	.715
I am satisfied with the retirement benefits programs offered by company.	1.000	.811
I am satisfied with the health and welfare benefits programs offered by company	1.000	.730
I am satisfied with the amount of paid time off offered by company.	1.000	.792
Training and Development programmes are effective and schedule on time	1.000	.763
Extraction Method: Principal Component Analysis.		

The result indicates that the initial communalities of each variables are found to be 1. However, the extracted communalities are less than 1. The result indicates that the extracted communalities of all the variables is found to be greater than 0.6. The extracted communalities indicate the goodness of fit of the factor analysis. Higher the value of extracted communalities of variables better it is. Hence, all the variables can be included in the factor analysis. The factor analysis applies the process of principle component analysis in order to identify and estimate the Eigen value of principle components. After calculating the Eigen values of the components they are arranged in descending order with respect to calculated Eigen values. For the analysis the principle component having Eigen value more than 1 is selected for the study. The results of factor analysis after applying principle component analyses is shown in table 5.45.

Table 5.45 Total Variance Explained									
Com po	Initial Eigen values			Extraction Sums of			Rotation Sums of		
	Total	% of Varianc	Cumulative %	Total	% of Varianc	Cumulative %	Total	% of Varianc	Cumulative %
1	13.19	45.483	45.483	13.19	45.483	45.483	4.503	15.527	15.527
2	2.129	7.341	52.824	2.129	7.341	52.824	4.350	15.000	30.527
3	2.038	7.026	59.850	2.038	7.026	59.850	3.626	12.505	43.032
4	1.483	5.112	64.962	1.483	5.112	64.962	3.019	10.411	53.443
5	1.316	4.537	69.499	1.316	4.537	69.499	2.964	10.222	63.665
6	1.229	4.236	73.736	1.229	4.236	73.736	2.921	10.071	73.736
7	1.032	3.424	77.160	1.032	3.424	77.160	2.432	10.001	77.160
8	.781	2.693	79.853						
9	.569	1.961	81.813						
10	.494	1.702	83.516						
11	.473	1.630	85.146						
12	.410	1.413	86.459						
13	.391	1.348	87.908						
14	.363	1.251	89.159						
15	.315	1.088	90.247						
16	.302	1.042	91.289						
17	.284	.980	92.269						
18	.265	.913	93.182						
19	.257	.887	94.069						
20	.239	.823	94.892						
21	.229	.790	95.683						
22	.204	.705	96.388						
23	.195	.674	97.061						
24	.190	.656	97.717						
25	.162	.458	98.276						
26	.154	.532	98.807						
27	.131	.451	99.258						
28	.119	.410	99.669						

29	.096	.331	100.000						
Extraction Method: Principal Component Analysis									

The results indicate that the twenty nine variables considered for the study can be reduced to seven principle components having Eigen values more than 1. These seven factors explain approx. 77 percent of the variance of the included variables. Assuming that the explained variance is sufficient, the extracted factors will be used for further analysis.

In order to modify the extracted components representing the twenty nine variables/variables considered for the study, orthogonal rotation (Varimax) is applied. The rotated component matrix (RCM) represents the factor loading of each variable to the extracted factors. The factor loadings can be defined as the correlation between the factors and the variables. It is assumed that every variable considered for the study must have significant factor loading to only one factor and insignificant factor loadings to all other extracted factors. The result of the rotated component matrix is shown below in table 5.46.

Table 5.46 Rotated Component Matrix[a]

	Component						
	1	2	3	4	5	6	7
I am proud to say I work for my company.	.682	.163	.196	.161	.123	.149	.201
I am currently considering leaving the Company.	.693	.174	.219	.071	.102	.051	.222
I am planning to continue my career with my company for at least 5 more years.	.740	.169	.075	.127	.178	.212	.152
Company provides me with job security.	.796	.132	.180	.200	.163	.175	.174
I would recommend my company as an employer to my friends.	.785	.169	.109	.219	.090	.196	.260
I am satisfied with senior leadership's vision for this site.	.732	.173	.139	.335	.184	.101	.302
My salary is competitive with others who have similar responsibilities within the	.374	.182	.147	.706	.159	.107	.271

My salary is competitive with similar jobs at other companies.	.156	.168	.134	.757	.140	.159	.223
I am satisfied with the pay I receive at company	.236	.185	.247	.741	.170	.114	.155
I receives perks and incentives for assignment completion	.270	.182	.335	.724	.150	.130	.104
My job responsibilities at Company allow me opportunity to do what I do best every	.361	.285	.617	.281	.074	.097	.801
At company I have opportunities to learn and grow.	.264	.292	.722	.217	.072	.182	.799
My work is challenging.	.264	.286	.718	.246	.065	.089	.782
Training and Development programmes are effective and schedule on time	.319	.474	.628	.179	.102	.027	.749
Work schedules provides me a balance to meet work & personal needs	.263	.645	.211	.037	.156	-.106	.268
My workload is such that I can do my best every day.	.207	.796	.234	.030	.128	.092	.213
I am satisfied with the overall work life balance at company	.165	.826	.142	.169	.158	.133	.229
Company provides me the materials and equipment to do my job right.	.152	.802	.095	.235	.132	.254	.219
My physical space at company allows me to work efficiently.	.162	.706	.178	.256	.029	.357	.133
Healthy and hygienic working conditions.	.070	.662	.220	.242	.125	.409	.254
I have the opportunity to give my opinion on matters that are important to me.	.293	.271	.149	.144	.186	.763	.357
My workgroup experience at company is positive.	.268	.223	.202	.160	.173	.801	.409
I am satisfied with the encouragement & professional respect I receive at company.	.253	.145	.254	.142	.231	.773	.273
I feel my supervisor cares about me as a person and as a professional.	.007	.104	.616	.115	.299	.410	.156
My immediate supervisor at company is effective at managing our work group.	.127	.126	.576	.159	.459	.362	.146

My second level manager is effective in his or her role.	.123	.074	.588	.168	.496	.273	.142
I am satisfied with the health and welfare benefits programs offered by company	.184	.106	.114	.148	.791	.156	.115
I am satisfied with the retirement benefits programs offered by company.	.183	.173	.125	.167	.826	.146	.159
I am satisfied with the amount of paid time off offered by company.	.217	.206	.159	.126	.803	.124	.168

xtraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Rotation converged in 8 iterations.

The result of rotated component matrix (RCM) indicates that the twenty variables can be reduced to seven extracted components. It is also found that all the variables have significant factor loadings to only one factor and insignificant factor loadings to other extracted factors. It is also observed from the results that the significant factor loadings for each factor is found to be greater than 0.7. Hence it can be concluded from the results that structure of the extracted factors from the variables satisfies the assumptions of convergent as well as discriminant validity. Analysing the variables having significant factor loadings to different factors. These factors can be named in table 5.47 as below:

Table 5.47 List of Factors Extracted (KWRP)

Factors	**Name**
1	Overall Relationship
2	Compensation Structure
3	Career Growth
4	Work life programmes
5	Working Culture
6	Leadership
7	Benefits programmes

By Researchers Analysis

These factors are explained below in detail:

FACTOR – 1 OVERALL RELATIONSHIP

After putting EFA the factor extracted **Overall Relationship** consist of 6 variables. All the variables shows the significant loading towards the factor. Overall relationship with the organization consists of relations with the company as an individual. It may be analyse with the help of the level of proud to work, security of the job, vision of leaders and career plans which may affect the level of knowledge workers retention. The present study identified the internal level of consistency with the use of Cronbach's alpha test and the results for the factor overall relationship is **(0.904)** which indicates the sufficient level of internal consistency. The results of the descriptive study also define the variables as under in the table 5.48.

Table 5.48 Overall Relationship

Construct	Variables	Mean (S.D)	Skewness	Kurtosis	Internal Consistency Reliability
Overall Relationship	I am proud to say I work for my company.	4.43 (1.56)	-.328	-.784	**0.904**
	I am currently considering leaving the Company.	4.40 (1.53)	-.341	-.632	
	I am planning to continue my career with my company for at least 5 more years.	4.46 (1.45)	-.278	-.573	
	Company provides me with job security.	4.45 (1.46)	-.311	-.707	
	I would recommend my company as an employer to my friends.	4.66 (1.41)	-.399	-.385	
	I am satisfied with senior leadership's vision for this site.	4.67 (1.39)	-.306	-.459	

The results clearly mentioned that the factor "Satisfied with senior's leadership's vision" is found to the highest (4.67) next followed by the statement "I would recommend my company as an employer to my friends" (4.66). The statement with the least score is in case of statement "I am currently considering leaving the Company".

FACTOR – 2 COMPENSATION STRUCTURE

The factor identified is **Compensation structure**, the results of EFA stated that the factor compensation consist of 4 variables. As per the test of EFA there is a significant loading by the each statement on the factor. The compensation plays a vital role in the level of employees retention and motivates a d drives the employee to perform better. The factor consist of variable like the competitiveness of the salary within the company and other companies as well and the incentives received. The result of cronbach's alpha test signifies the level of internal consistency for the factor compensation that is (0.877). The results of descriptive studies are as follows in table no 5.49.

Table 5.49 Compensation Structure

Construct	Variables	Mean (S.D)	Skewness	Kurtosis	Internal Consistency Reliability
Compensation	My salary is competitive with others who have similar responsibilities within the company.	4.58 (1.43)	-.439	-.356	**0.877**
	My salary is competitive with similar jobs at other companies.	4.45 (1.51)	-.261	-.757	
	I am satisfied with the pay I receive at company	4.57 (1.46)	-.264	-.717	
	I receives perks and incentives for assignment completion	4.62 (1.44)	-.326	-.776	

The results of descriptive study indicates clearly mentioned that the statement "I receives perks and incentives for assignment completion" is found to be greater than all (4.62) next followed by the statement "My salary is competitive with others who have similar responsibilities within the company." (4.58) and the lowest score was extracted from statement "My salary is competitive with similar jobs at other companies."

FACTOR – 3 CARRER GROWTH

The factor identified i**s Career growth,** the factor career consists of four variables and the results extracted from EFA stated that each statement has the significant loadings on the factor Career. The factor career decides the retention time of the employees and has to be managed properly. This factor consist of 4 variables mainly job responsibilities, career planning and challenging work, opportunities to grow and training options and each statement perceived the career factor positively. The internal level of consistency is found sufficient with the help of cronbach's alpha test **(0.912)**. All the variables are also analysed by the descriptive study the results are as under in the table no 5.50.

Table 5.50 Career Growth

Construct	Variables	Mean (S.D)	Skewness	Kurtosis	Internal Consistency Reliability
Career Growth	My job responsibilities at Company allow me opportunity to do what I do best every day.	4.62 (1.46)	-.347	-.452	**0.912**
	At company I have opportunities to learn and grow.	4.57 (1.45)	-.318	-.549	
	Career and succession Planning policies	4.48 (1.52)	-.445	-.449	
	Training effective and schedule on time	4.56 (1.48)	-.396	-.477	

The results of descriptive study stated that "My job responsibilities at Company allow me opportunity to do what I do best every day "is found to be greater than all (4.62) next followed by the statement "At company I have opportunities to learn and grow." (4.57) and the lowest score was revealed from statement "Career and succession planning policies."

FACTOR – 4 WORK LIFE PROGRAMMES

The factor identified i**s Work life programmes**, after applying EFA the factor Work life programmes having 6 variables and having the significant loading towards the factor. The results of EFA extracted that the Work life programmes is measured by the workload, work schedules work life balance hygienic conditions and these surely link with the attachment of the employees. In additions to this physical space and work culture also induce the employees to perform well and stay for longer times. In the study the level of internal consistency of the factor work life programmes is measured with the help of Cronbach's alpha. The all variables consisting in the factor work life programmes is found to sufficient for internal consistency reliability **(0.911).** The descriptive analysis of the variables included in the factor is also estimated. The results of the descriptive analysis of the included variables in the factor are shown below in table 5.51.

Table 5.51 Work life programmes

Construct	Variables	Mean (S.D)	Skewness	Kurtosis	Internal Consistency Reliability
Work life programmes	Work schedules provides me a balance to meet work & personal needs	4.54 (1.43)	-.357	-.633	**0.911**
	My workload is such that I can do my best every day.	4.53 (1.49)	-.310	-.806	
	I am satisfied with the overall work life balance at company.	4.60 (1.51)	-.407	-.522	

	Company provides me the materials and equipment to do my job right.	4.67 (1.45)	-.428	-.511	
	My physical space at company allows me to work efficiently.	4.68 (1.49)	-.483	-.442	
	Healthy and hygienic working conditions.	4.66 (1.51)	-.448	-.494	

The descriptive concluded that "My physical space at company allows me to work efficiently" is found to be greater than all the variables (4.68) and next is followed by the statement "Company provides me the materials and equipment to do my job right." (4.67) and least score was extracted with the statement "My workload is such that I can do my best every day."

FACTOR – 5 WORKING CULTURE

The factor identified is **Working Culture**, after the implementation of EFA it was found that the factor working culture consisting of three variables and the result of factor analysis shows that each statement has a significant loading on the factor. The factor working culture is measure with help of variables like opinion freedom, positives of work group and respect get professionally. These factor are positively creates an environment of retention of the employees. The level of internal consistency reliability is extracted with the help of cronbach's alpha test and measured at **(0.933).** The factor was also explained by the descriptive test as well under in the table 5.52.

Table 5.52 Working Culture

Construct	Variables	Mean (S.D)	Skewness	Kurtosis	Internal Consistency Reliability
	I have the opportunity to give my opinion on matters that are important to me.	4.33 (1.59)	-.228	-.756	

Working Culture	My workgroup experience at company is positive.	4.47 (1.48)	-.337	-.681	**0.933**
	I am satisfied with the encouragement & professional respect I receive at company.	4.50 (1.50)	-.393	-.724	

The descriptive concluded that "I am satisfied with the encouragement & professional respect I receive at company. "Is found to be higher than all variable in the factor culture (4.50) and next positively associated statement with culture "My workgroup experience at company is positive." (4.57) and least score was extracted with the statement "I have the opportunity to give my opinion on matters that are important to me."

FACTOR – 6 LEASDERSHIP

The factor identified is **leadership**, after applying EFA it was found that the factor leadership consist of 3 variables and the result of EFA stated that the all three variable has a significant loading on the factor leadership. The leadership is perceived by the variables like the behaviour of supervisor and their concern and the effectiveness of the manager in their roles. These variables always decide the behaviour of employees towards their bosses and the reason for being retained in the organizations. The factor extracted shows the sufficient level of internal consistency in the variables with the help of cronbach's alpha (0.905). The factor leadership is also explained by the descriptive study in the table no. 5.53.

Table 5.53 Leadership

Construct	Variables	Mean (S.D)	Skewness	Kurtosis	Internal Consistency Reliability
Leadership	I feel my supervisor cares about me as a person and as a professional.	4.46 (1.53)	-.281	-.715	**0.905**
	My immediate supervisor at company is effective at	4.46 (1.45)	-.213	-.674	

	managing our work group.				
	My second level manager is effective in his or her role.	4.43 (1.47)	-.293	-.606	

The descriptive test concluded that "My immediate supervisor at company is effective at managing our work group" is found to be higher than all variable in the factor leadership" (4.46) and next positively associated statement with culture "I feel my supervisor cares about me as a person and as a professional" (4.46) and least score was extracted with the statement "My second level manager is effective in his or her role."

FACTOR – 7 BENEFITS PROGRAMMES

The factor identified is **Benefit programmes**, The EFA test extracted and it was found that the factor benefits programmes consist of three variables and the result of EFA stated that the all three variables has a significant loading in the factor benefits programmes. The factor is perceived by the variables like the welfares schemes, retirement benefits and amount paid as bonus. The internal level of consistency reliability is extracted with use of cronbach's alpha test (0.887). The factor benefits programmes is also explained by the descriptive study in the table no. 5.54.

Table 5.54 Benefit Programmes

Construct	Variables	Mean (S.D)	Skewness	Kurtosis	Internal Consistency Reliability
Benefit Programmes	I am satisfied with the health and welfare benefits programs offered by company	4.18 (1.63)	-.367	-.827	**0.887**
	I am satisfied with the retirement benefits programs offered by company.	4.28 (1.68)	-.388	-.787	

	I am satisfied with the amount offered by company as bonus and for non-routine work.	4.30 (1.67)	-.383	-.841	

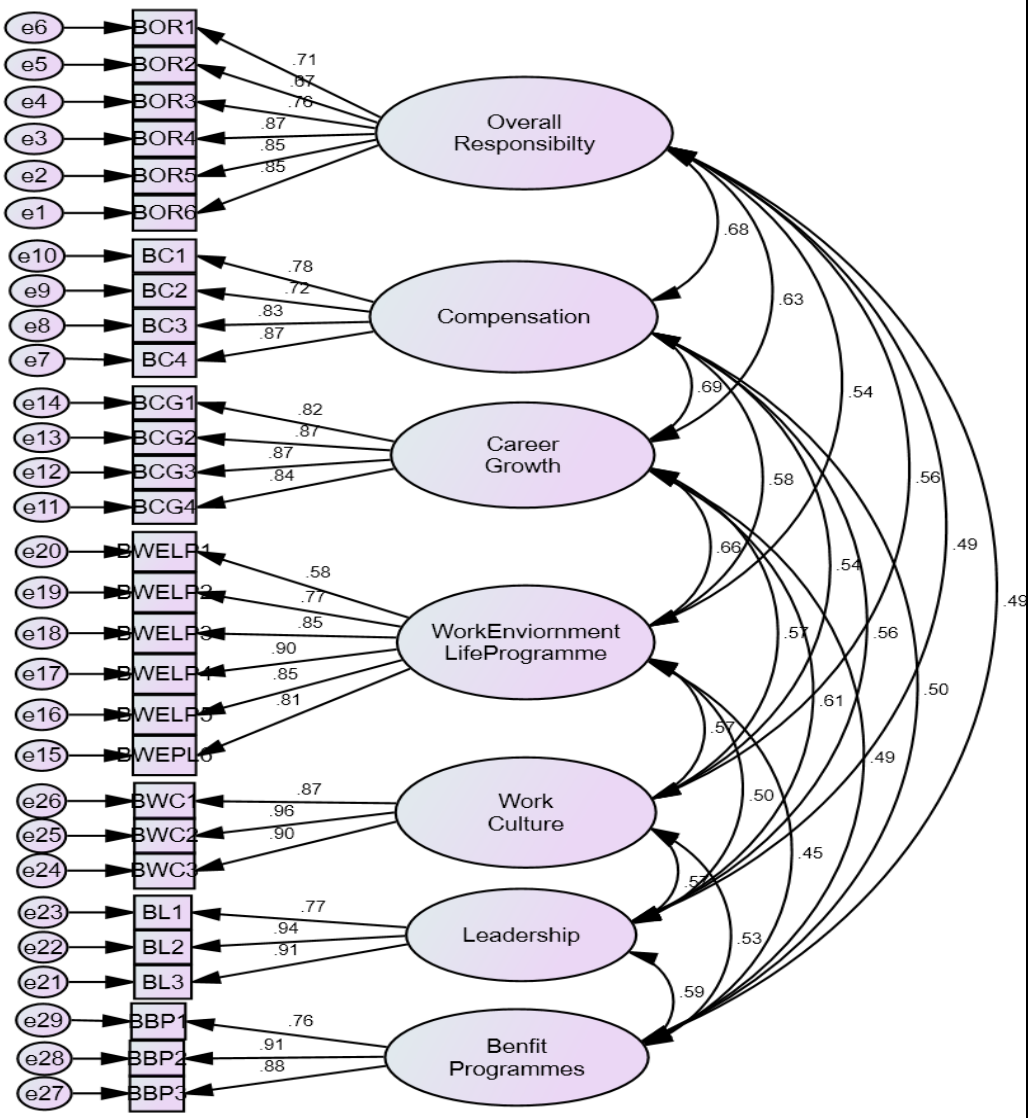
The results of descriptive test stated that that "I am satisfied with the amount offered by company as bonus and for non-routine work" is found to be higher than all the variables in the factor Benefits programmes" (4.30) and the next positively associated statement with culture "I am satisfied with the retirement benefits programs offered by company." (4.46) and least score was extracted with the statement "I am satisfied with the health and welfare benefits programs offered by company"

5.3.1 Validity analysis of the identified factors using confirmatory factor analysis (CFA)

EFA is used in the study in order to identify the latent factors extracted from the variables used in the questionnaire. The EFA method is used for scale development in order to achieve the objectives of the study. Before applying structural equation modelling (SEM) to achieve the objective, that is factors affecting the KW retention, it is required to test the construct validity of the identified scale of knowledge workers management practices. Confirmatory factor analysis (hereafter CFA) is used to test the construct validity of the scale developed (in order to measure knowledge worker's retention practices) in the process of applying EFA. Construct validity which includes both convergent as well as discriminant validity of the construct used in the scale can be tested with the help of CFA. The convergent validity of the construct represent that how much the item/variables used in the study represent the construct (or factor) whereas discriminant validity analyse the level of cross loadings of the variables of one construct with the variables of other construct. The convergent validity of the constructs can be tested with the help of composite reliability (CR) statistics and average variance extracted (AVE) measure. The composite reliability of all the constructs should be greater than 0.7 and average variance extracted should also be greater than 0.5. In addition to this the composite reliability statistics of each construct should also be greater than its average variance extracted measure. The composite reliability represents of a construct represents the level of consistency reliability within the

variables used in the construct whereas average variance extracted explains the variance of the used variables used which can be explained by the related construct. In order to ensure the presence of discriminant validity the average variance extracted measure of each construct should be greater than average shared variance (ASV) measure as well as maximum shared variance (MSV) measure of each construct. The confirmatory factor analysis is represented by the figure and tables below:

Figure 5.8 Confirmatory factor analysis



The table shown below that the composite reliability in case of all the constructs in the study are found to be greater than 0.7. In addition to this the average variance extracted measures of all the constructs are found to be greater than 0.5. Hence it can be concluded from the results of CFA that the constructs used in the study in the measurement have adequate convergent validity. In case of discriminant validity it is required to have low level of correlation between different pairs of variables representing different constructs. In other words the level of cross loading of the variables representing one construct with the variables of other constructs must be low. In order to examine the presence of discriminant validity in the constructs the shared variance between different constructs is compared with the average variance extracted measures of different constructs. The discriminant validity is ensured if it is found that the square of maximum shared variance is less than average variance extracted and square of average shared variance is less than average variance extracted statistics. The results shows that maximum shared variance of each construct is lower than average variance extracted measure and average shared variance is less than average variance extracted measure for all constructs which indicates the presence of sufficient discriminant validity. The results also indicate that the composite reliability of the entire construct are found to be greater than 0.7 and average variance extracted greater than 0.5. Hence the convergent validity of the scale used in the study is ensured. In addition to this the average variance extracted is found to be greater than average shared variance as well as maximum shared variance, which ensures the presence of discriminant validity of the scale.

Since the construct validity of the scale used in order to measure the knowledge workers retention practices in the selected organisations is ensured, the construct can be used in the SEM method to study the impact of knowledge workers management on the KW engagement and retention in the IT sector.

Table 5.55 Discriminant Validity											
	CR	**AVE**	**MSV**	**MaxR(H)**	**WC**	**OR**	**CS**	**CG**	**WLP**	**LDSP**	**BP**
WC	0.93	0.83	0.32	0.95	**0.91**						
ORESP	0.90	0.62	0.45	0.96	0.56	**0.78**					
COMP	0.87	0.64	0.47	0.97	0.53	0.67	**0.80**				
CG	0.91	0.72	0.47	0.98	0.57	0.62	0.69	**0.85**			
WELP	0.91	0.64	0.43	0.98	0.57	0.54	0.58	0.65	**0.80**		
LDSP	0.91	0.77	0.37	0.98	0.57	0.49	0.56	0.6	0.50	**0.87**	
BP	0.89	0.73	0.35	0.98	0.52	0.49	0.50	0.49	0.44	0.59	**0.84**

Table 5.56 Measurement Model				
CMIN/DF	**GFI**	**RMR**	**CFI**	**RMSEA**
3.321	**.851**	**.096**	**.930**	**.068**

The table indicates the goodness of fit indices of the measurement model. The fitness indices of the CFA model indicates that the CFA is statistically fit and the different constructs can be used in the SEM.

5.3.2 Impact of demographic profile on knowledge workers retention practices (ANOVA BASED)

In the IT industry the employees belongs to different category of companies on the basis of turnover. The employee with different category of companies may have different exposure, and working culture in the companies. Their understanding of Knowledge workers retention practices (KWRP) by the companies may be different. In the study the efforts is done in order to analyse the difference in the perceptions of employees working with selected organisations in India with respect to the different knowledge workers retention practices adopted by the companies. One way analysis of variance (ANOVA) is applied in the study to test the presence of difference in the perception of employees of different companies. The null hypothesis of one way ANOVA is mentioned below:

5.3.3 Perception towards Knowledge Workers retention practices

After the analysis of literature review and advice from experts it is found that group of companies, experience with the current organization and age of the respondents are important factors in the context of this study affects the retention of knowledge workers in the organisation. For more clarification of these three factors, ANOVA test is applied to see the perception of knowledge workers in retention practices adopted by the organization.

Result of ANOVA revealed the perception of knowledge workers towards the knowledge workers retention practices, on the basis of group of company, experience and age of the respondent. Result of Analysis of variance indicates that the probability value of **f - statistic** for all the factors representing the knowledge workers retention practices adopted by the companies is found to be less than 5 percent level of significant.

5.3.4 On the basis of group of companies

H_{04}: The perception of the knowledge worker's working with different category of companies towards knowledge worker's retention practices adopted by their employer is same.

Table 5.57 Overall Relationship

Construct Name	Groups	Mean (S.D)	F-Stat (P- Value)
Overall Relationship	Top	4.678 (1.198)	14.103 (.000)
	Medium	4.532 (1.025)	
	Small	4.058 (1.099)	

The result of **Overall Relationship** indicates that the probability value of f statistic for all the factors representing the Knowledge Worker's Retention Practices adopted by the companies are found to be less than 5 percent level of significant. Hence, the null hypothesis that the perception of employees with different group of companies towards Knowledge Worker's Retention Practices is same cannot be accepted. It is observed

that the mean score of employees with top companies is found to be higher as compared to the employees of medium and small companies. It means the employees in the medium and small companies perceive that there exists low level of Knowledge Worker's Retention Practices as compared to the employees of top companies.

Table 5.58 Compensation			
Construct Name	**Groups**	**Mean (S.D)**	**F-Stat (P- Value)**
Compensation	Top	4.889 (1.163)	08.501 (.000)
	Medium	4.747 (1.157)	
	Small	4.372 (1.217)	

The result of **Compensation** indicates that the probability value of f statistic for all the factors representing the Knowledge Worker's Retention Practices adopted by the companies are found to be less than 5 percent level of significant. Hence, the null hypothesis that the perception of employees with different group of companies towards Knowledge Worker's Retention Practices is same cannot be accepted. It is observed that the mean score of employees with top companies is found to be higher as compared to the employees of medium and small companies. It means the employees in the medium and small companies perceive that there exists low level of Knowledge Worker's Retention Practices as compared to the employees of top companies.

Table 5.59 Career Growth			
Construct Name	**Groups**	**Mean (S.D)**	**F-Stat (P- Value)**
Career Growth	Top	4.686 (1.170)	12.218 (.000)
	Medium	4.653 (1.158)	
	Small	4.114 (1.211)	

The result of **Career Growth** indicates that the probability value of f statistic for all the factors representing the Knowledge Worker's Retention Practices adopted by the companies are found to be less than 5 percent level of significant. Hence, the null hypothesis that the perception of employees with different group of companies towards Knowledge Worker's Retention Practices is same cannot be accepted. It is observed that the mean score of employees with top companies is found to be higher as compared to the employees of medium and small companies. It means the employees in the medium and small companies perceive that there exists low level of Knowledge Worker's Retention Practices as compared to the employees of top companies.

Table 5.60 Work Life Programmes

Construct Name	Groups	Mean (S.D)	F-Stat (P- Value)
Work Environment and Life Programmes	Top	4.631 (1.207)	08.720 (.000)
	Medium	4.450 (1.100)	
	Small	4.129 (1.207)	

The result of **Work Life Programmes** indicates that the probability value of f statistic for all the factors representing the Knowledge Worker's Retention Practices adopted by the companies are found to be less than 5 percent level of significant. Hence, the null hypothesis that the perception of employees with different group of companies towards Knowledge Worker's Retention Practices is same cannot be accepted. It is observed that the mean score of employees with top companies is found to be higher as compared to the employees of medium and small companies. It means the employees in the medium and small companies perceive that there exists low level of Knowledge Worker's Retention Practices as compared to the employees of top companies.

Table 5.61 Working Culture			
Construct Name	**Groups**	**Mean (S.D)**	**F-Stat (P- Value)**
Working Culture	Top	4.398 (1.428)	07.443 (.000)
	Medium	4.495 (1.283)	
	Small	3.971 (1.200)	

The result of **Work Culture** indicates that the probability value of f statistic for all the factors representing the Knowledge Worker's Retention Practices adopted by the companies are found to be less than 5 percent level of significant. Hence, the null hypothesis that the perception of employees with different group of companies towards Knowledge Worker's Retention Policies & Practices is same cannot be accepted. It is observed that the mean score of employees with top companies is found to be higher as compared to the employees of medium and small companies. It means the employees in the medium and small companies perceive that there exists low level of Knowledge Worker's Retention Practices as compared to the employees of top companies.

Table 5.62 Leadership			
Construct Name	**Groups**	**Mean (S.D)**	**F-Stat (P- Value)**
Leadership	Top	4.579 (1.346)	07.993 (.000)
	Medium	4.452 (1.277)	
	Small	4.075 (1.232)	

The result of **Leadership** indicates that the probability value of f statistic for all the factors representing the Knowledge Worker's Retention Practices adopted by the companies are found to be less than 5 percent level of significant. Hence, the null

hypothesis that the perception of employees with different group of companies towards Knowledge Worker's Retention Practices is same cannot be accepted. It is observed that the mean score of employees with top companies is found to be higher as compared to the employees of medium and small companies. It means the employees in the medium and small companies perceive that there exists low level of Knowledge Worker's Retention Practices as compared to the employees of top companies.

Table 5.63 Benefit Programmes

Construct Name	Groups	Mean (S.D)	F-Stat (P- Value)
Benefit Programmes	Top	4.524 (1.330)	07.931 (.000)
	Medium	4.341 (1.468)	
	Small	3.928 (1.391)	

The result of **Benefit Programmes** indicates that the probability value of f statistic for all the factors representing the Knowledge Worker's Retention Practices adopted by the companies are found to be less than 5 percent level of significant. Hence, the null hypothesis that the perception of employees with different group of companies towards Knowledge Worker's Retention Practices is same cannot be accepted. It is observed that the mean score of employees with top companies is found to be higher as compared to the employees of medium and small companies. It means the employees in the medium and small companies perceive that there exists low level of Knowledge Worker's Retention Practices as compared to the employees of top companies.

5.3.5 Experience with Current Organization

H_{05}: The perception of the knowledge worker's working with the current organization in terms of experience towards knowledge worker's retention practices adopted by their employer is same.

Table 5.64 Overall Relationship			
Construct Name	**Groups**	**Mean (S.D)**	**F-Stat (P- Value)**
Overall Relationship	> 3 Years	3.613 (1.00)	67.326 (.000)
	3-5 Years	4.311 (1.041)	
	< 5 Years	4.939 (.943)	

The result of **Overall Relationship** indicates that the probability value of f statistic for all the factors representing the Knowledge Worker's Retention Practices adopted by the companies are found to be less than 5 percent level of significant. The perception of employees working with current organization experience towards Knowledge Worker's Retention Practices cannot be accepted. It is observed that the mean score of employees with more than 5 Years of experience in current company is found to be higher as compared to the employees working for less than 5 Years in current organization. It means the employees in the less than 5 Years of experience in current company perceive that there exists low level of Knowledge Worker's Retention practices as compared to the employees having more than 5 Years of experience.

Table 5.65 Compensation			
Construct Name	**Groups**	**Mean (S.D)**	**F-Stat (P- Value)**
Compensation	> 3 Years	4.015 (1.228)	51.507 (.000)
	3-5 Years	4.424 (1.135)	
	< 5 Years	5.200 (.976)	

The result of **Compensation** indicates that the probability value of f statistic for all the factors representing the Knowledge Worker's Retention Practices adopted by the companies are found to be less than 5 percent level of significant. The perception of

employees working with current organization experience towards Knowledge Worker's Retention Practices cannot be accepted. It is observed that the mean score of employees with more than 5 Years of experience in current company is found to be higher as compared to the employees working for less than 5 Years in current organization. It means the employees in the less than 5 Years of experience in current company perceive that there exists low level of Knowledge Worker's Retention Practices as compared to the employees having more than 5 Years of experience.

Table 5.66 Career Growth

Construct Name	Groups	Mean (S.D)	F-Stat (P- Value)
Career Growth	> 3 Years	3.869 (1.271)	38.682 (.000)
	3-5 Years	4.304 (1.147)	
	< 5 Years	4.948 (1.019)	

The result of **Career Growth** indicates that the probability value of f statistic for all the factors representing the knowledge workers retention practices adopted by the companies are found to be less than 5 percent level of significant. The perception of employees working with current organization experience towards knowledge workers retention practices cannot be accepted. It is observed that the mean score of employees with more than 5 Years of experience in current company is found to be higher as compared to the employees working for less than 5 Years in current organization. It means the employees in the less than 5 Years of experience in current company perceive that there exists low level of knowledge workers retention practices as compared to the employees having more than 5 Years of experience.

Table 5.67 Work Life Programmes			
Construct Name	**Groups**	**Mean (S.D)**	**F-Stat (P- Value)**
Work Environment & Life Programmes	> 3 Years	3.806 (1.302)	38.682 (.000)
	3-5 Years	4.317 (1.090)	
	< 5 Years	4.864 (1.021)	

The result of **Work Life Programmes** indicates that the probability value of f statistic for all the factors representing the knowledge workers retention practices adopted by the companies are found to be less than 5 percent level of significant. The perception of employees working with current organization experience towards knowledge workers retention practices cannot be accepted. It is observed that the mean score of employees with more than 5 Years of experience in current company is found to be higher as compared to the employees working for less than 5 Years in current organization. It means the employees in the less than 5 Years of experience in current company perceive that there exists low level of knowledge workers retention practices as compared to the employees having more than 5 Years of experience.

Table 5.68 Working Culture			
Construct Name	**Groups**	**Mean (S.D)**	**F-Stat (P- Value)**
Working Culture	> 3 Years	3.567 (1.198)	38.085 (.000)
	3-5 Years	4.153 (1.260)	
	< 5 Years	4.773 (1.241)	

The result of **Working Culture** indicates that the probability value of f statistic for all the factors representing the knowledge workers retention practices adopted by the companies are found to be less than 5 percent level of significant. The perception of

employees working with current organization experience towards knowledge workers retention practices cannot be accepted. It is observed that the mean score of employees with more than 5 Years of experience in current company is found to be higher as compared to the employees working for less than 5 Years in current organization. It means the employees in the less than 5 Years of experience in current company perceive that there exists low level of knowledge workers retention practices as compared to the employees having more than 5 Years of experience.

Table 5.69 Leadership

Construct Name	Groups	Mean (S.D)	F-Stat (P- Value)
Leadership	> 3 Years	3.798 (1.173)	35.679 (.000)
	3-5 Years	4.144 (1.227)	
	< 5 Years	4.914 (1.235)	

The result of **Leadership** indicates that the probability value of f statistic for all the factors representing the knowledge workers retention practices adopted by the companies are found to be less than 5 percent level of significant. The perception of employees working with current organization experience towards knowledge workers retention practices cannot be accepted. It is observed that the mean score of employees with more than 5 Years of experience in current company is found to be higher as compared to the employees working for less than 5 Years in current organization. It means the employees in the less than 5 Years of experience in current company perceive that there exists low level of knowledge workers retention practices as compared to the employees having more than 5 Years of experience.

Table 5.70 Benefits Programmes			
Construct Name	**Groups**	**Mean (S.D)**	**F-Stat (P- Value)**
Benefits Programmes	> 3 Years	3.595 (1.230)	39.923 (.000)
	3-5 Years	4.062 (1.416)	
	< 5 Years	4.773 (1.325)	

The result of **Benefits Programmes** indicates that the probability value of f statistic for all the factors representing the knowledge workers retention practices adopted by the companies are found to be less than 5 percent level of significant. The perception of employees working with current organization experience towards knowledge workers retention practices cannot be accepted. It is observed that the mean score of employees with more than 5 Years of experience in current company is found to be higher as compared to the employees working for less than 5 Years in current organization. It means the employees in the less than 5 Years of experience in current company perceive that there exists low level of knowledge workers retention practices as compared to the employees having more than 5 Years of experience.

5.3.6 Age of the respondents

H_{06}: The perception of the knowledge worker's about the age and its impact on knowledge workers retention practices adopted by their employer is same.

Table 5.71 Overall Relationship			
Construct Name	**Groups**	**Mean (S.D)**	**F-Stat (P- Value)**
Overall Relationship	< 30 Years	3.451 (1.084)	42.943 (.000)
	30- 35 Years	4.102 (1.096)	
	35- 45 Years	4.636 (.992)	

	>45 Years	5.052 (.909)	

The result of **Overall Relationship** indicates that the probability value of f statistic for all the factors representing the knowledge workers retention practices adopted by the companies is found to be less than 5 percent level of significant. The perception of employee's age towards knowledge workers retention practices adopted by their employer is same cannot be accepted. It is observed that the mean score of employee's age more than 45 years is found to be higher as compared to the employees having age of less than 45 years. It means the employee's age between 30 to 45 years perceive that there exists low level of knowledge workers retention practices as compared to the employees aging more than 45 years.

Table 5.72 Compensation

Construct Name	Groups	Mean (S.D)	F-Stat (P- Value)
Compensation	< 30 Years	3.941 (1.214)	36.670 (.000)
	30- 35 Years	4.249 (1.168)	
	35- 45 Years	4.963 (1.017)	
	>45 Years	5.273 (.973)	

The result of **Compensation** indicates that the probability value of f statistic for all the factors representing the knowledge workers retention practices adopted by the companies is found to be less than 5 percent level of significant. The perception of employee's age towards knowledge workers retention practices adopted by their employer is same cannot be accepted. It is observed that the mean score of employee's age more than 45 years is found to be higher as compared to the employees having age of less than 45 years. It means the employee's age between 30 to 45 years perceive that there exists low level of knowledge workers retention practices as compared to the employees aging more than 45 years.

Table 5.73 Career Growth			
Construct Name	**Groups**	**Mean (S.D)**	**F-Stat (P- Value)**
Career Growth	< 30 Years	3.663 (1.237)	31.067 (.000)
	30- 35 Years	4.209 (1.194)	
	35- 45 Years	4.646 (.981)	
	>45 Years	5.079 (1.042)	

The result of **Career Growth** indicates that the probability value of f statistic for all the factors representing the knowledge workers retention practices adopted by the companies is found to be less than 5 percent level of significant. The perception of employee's age towards knowledge workers retention practices adopted by their employer is same cannot be accepted. It is observed that the mean score of employee's age more than 45 years is found to be higher as compared to the employees having age of less than 45 years. It means the employee's age between 30 to 45 years perceive that there exists low level of knowledge workers retention practices as compared to the employees aging more than 45 years.

Table 5.74 Work Life Programmes			
Construct Name	**Groups**	**Mean (S.D)**	**F-Stat (P- Value)**
Work Life Programmes	< 30 Years	3.641 (1.296)	29.224 (.000)
	30- 35 Years	4.166 (1.142)	
	35- 45 Years	4.614 (1.016)	
	>45 Years	4.998 (1.013)	

The result of **Work Life Programmes** indicates that the probability value of f statistic for all the factors representing the knowledge workers retention practices adopted by the companies is found to be less than 5 percent level of significant. The perception of employee's age towards knowledge workers retention practices adopted by their employer is same cannot be accepted. It is observed that the mean score of employee's age more than 45 years is found to be higher as compared to the employees having age of less than 45 years. It means the employee's age between 30 to 45 years perceives that there exists low level of knowledge workers retention practices as compared to the employees aging more than 45 years.

Table 5.75 Working Culture

Construct Name	Groups	Mean (S.D)	F-Stat (P- Value)
Working Culture	< 30 Years	3.601 (1.209)	24.782 (.000)
	30- 35 Years	3.914 (1.278)	
	35- 45 Years	4.485 (1.233)	
	>45 Years	4.894 (1.216)	

The result of **Work Culture** indicates that the probability value of f statistic for all the factors representing the knowledge workers retention practices adopted by the companies is found to be less than 5 percent level of significant. The perception of employee's age towards knowledge workers retention practices adopted by their employer is same cannot be accepted. It is observed that the mean score of employee's age more than 45 years is found to be higher as compared to the employees having age of less than 45 years. It means the employee's age between 30 to 45 years perceive that there exists low level of knowledge workers retention practices as compared to the employees aging more than 45 years.

Table 5.76 Leadership			
Construct Name	**Groups**	**Mean (S.D)**	**F-Stat (P- Value)**
Leadership	< 30 Years	3.728 (1.120)	25.489 (.000)
	30- 35 Years	4.054 (1.183)	
	35- 45 Years	4.514 (1.334)	
	>45 Years	5.046 (1.203)	

The result of **Leadership** indicates that the probability value of f statistic for all the factors representing the knowledge workers retention practices adopted by the companies is found to be less than 5 percent level of significant. The perception of employee's age towards knowledge workers retention practices adopted by their employer is same cannot be accepted. It is observed that the mean score of employee's age more than 45 years is found to be higher as compared to the employees having age of less than 45 years. It means the employee's age between 30 to 45 years perceive that there exists low level of knowledge workers retention practices as compared to the employees aging more than 45 years.

Table 5.77 Benefits Programmes			
Construct Name	**Groups**	**Mean (S.D)**	**F-Stat (P- Value)**
Benefits Programmes	< 30 Years	3.625 (1.175)	23.161 (.000)
	30- 35 Years	3.850 (1.410)	
	35- 45 Years	4.438 (1.360)	
	>45 Years	4.919 (1.283)	

The result of **Benefits Programmes** indicates that the probability value of f statistic for all the factors representing the knowledge workers retention practices adopted by the companies is found to be less than 5 percent level of significant. The perception of employee's age towards knowledge workers retention practices adopted by their employer is same cannot be accepted. It is observed that the mean score of employee's age more than 45 years is found to be higher as compared to the employees having age of less than 45 years. It means the employee's age between 30 to 45 years perceives that there exists low level of knowledge workers retention practices as compared to the employees aging more than 45 years.

5.4 DEMENSIONS OF KNOWLEDGE WORKERS MANAGEMENT STRATEGIES

This section will explain the theoretical background related on knowledge worker's management strategies in general. It will discuss the different factors affecting the knowledge worker's management strategies in Indian IT sector but these are different from the KW engagement and retention practices. The factors are identified with the help of exploratory factor analysis applied on different variables/variables used in the questionnaire. This section also discuss and analyse the reliability as well as validity of the identified factors of knowledge worker's management strategies in Indian IT sector. The validity analysis is done with the help of Confirmatory Factor Analysis.

This section also discussed the results of descriptive analysis done on various dimensions of identified knowledge workers management strategies. It will also examine and compare the level of perception of IT employees on the various dimensions of identified knowledge workers management strategies with respect to different demographic profiles; namely segregated on the basis of, group of companies (top, medium and small), experience in current organisation, age of the respondents. This section discussed the results of one way ANOVA on identified various dimensions of identified knowledge worker's management strategies.

First of all to achieve the first objective of the study, "***To investigate the Knowledge workers management strategies"*** following steps were taken.

In the research study, the primary data is collected from the employees working with different Information Technology (IT) companies is collected in order to study their perception towards different statement related to Knowledge workers management strategies. The data is collected with the help of self-designed questionnaire which has

been further validated. The IT employees selected for the study are asked to rate different variables related to organizational citizenship behaviour (OCB) in the scale of 1-7, where 1 stands for 'strongly disagree' and 7 stands for 'strongly agree'. In total, there were five hundred one responses are collected with the help of the questionnaire. Before doing the further statistical analysis the reliability of the variables is analysed. This study is focussed on the study of knowledge workers management practices adopted by IT companies in India.

In order to measure different aspects of knowledge workers management strategies adopted by IT companies in India, eighteen variables related to different knowledge workers management strategies adopted by different IT companies in India have been framed in the questionnaire with the help of literature review, discussion and thought process.

S. No.	**Table 5.78 Knowledge workers management strategies (Variables)**
$V1_M$	Company is aware about the talent and competencies of knowledge workers in the organization.
$V2_M$	Company is aware about the contribution of knowledge workers in achieving organizational goals.
$V3_M$	CEO and BOD are actively involved with leadership development activities of knowledge workers.
$V4_M$	Employer is responsive and willing to make changes needed to acquire new techniques and skills.
$V5_M$	Company consistently provides ongoing developmental feedback to support and encourage knowledge workers.
$V6_M$	Individual achievements of knowledge workers are recognized and rewarded by management.
$V7_M$	Subjectively measures the knowledge workers on the basis of total contribution/team efforts and accountable for complex job assignments.
$V8_M$	Knowledge workers are motivated and encouraged by the management to upgrade their current skill set and knowledge.
$V9_M$	Maximizing the value and potential of knowledge workers.
$V10_M$	Encourage and support knowledge workers to look at lateral roles as a growth option.
$V11_M$	Provides flexible work arrangements for knowledge workers in order to perform their assigned tasks.
$V12_M$	Focused on creative process for knowledge workers to improve knowledge management and collaborative project.

$V13_M$	Organization has right pool of knowledge workers for its present and future strategies.
$V14_M$	New projects are used to address specific leader development needs of knowledge workers.
$V15_M$	Care for well-being of knowledge workers by making their lives easier and less stress.
$V16_M$	Viewed the knowledge workers as corporate assets.
$V17_M$	Company is much concern about the career development and growth opportunities for knowledge workers in future.
$V18_M$	Mentoring relationships going on to build motivation and loyalty among knowledge workers.
Source: On the basis of research, complied by the researcher	

In order to explore and analyze the variables, exploratory factor analysis (EFA) statistical method is applied. The EFA helps in identifying the correlation relationship among the variable considered for the study. The EFA statistical method analyse the correlation relationship between all the pairs of variables considered in the study and try to reduce the variables into few significant latent variables. These latent variables are known as factors. These factors individually represent a group of variables having significant correlation between them. Exploratory Factor analysis (EFA) requires the fulfilment of few assumptions. The assumptions of EFA include the availability of sampling adequacy and presence of significant correlations between the different pair variables considered for the study. The Kaiser-Meyer-Olkin Measure (KMO) as well as Bartlett's test of Sphericity is applied in the study in order to test the presence of required sampling adequacy and the correlation structure between different pair of variables. The statistical result of KMO measures of sampling adequacy and Bartlett test of Sphericity is shown below in Table 5.79.

Table 5.79 KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.901
Bartlett's Test of Sphericity	Approx. Chi-Square	6595.153
	df.	153
	Sig.	.000

The statistical result of KMO test indicates that the KMO statistic is found to be 0.901 which indicates the presence of required sampling adequacy in the data set collected in the study. The KMO value of ***0.901*** also represents the adequacy of enough variations in the responses against the variables which is a necessary condition to apply EFA. Hence it is confirmed that sample adequacy is present in the dataset. The Bartlett's test of Sphericity indicates the existence of significant correlation relationship between the different pair of variables selected for factor analysis. The null hypothesis of the Bartlett test assumes that the correlation matrix indicating the coefficient of correlation between all pair of variables is an identity matrix. The results of Bartlett test indicate that p value of Chi-square statistic is found to be less than 5 percent level of significance. Thus, with ninety five percent confidence level can be concluded that the correlation matrix representing the coefficient of Pearson correlation is not an identity matrix. Hence it can be summarized that there exist significant correlations between different pair of variables which is required in order to apply EFA.

Table 5.80 represents the communalities of included variables before and after the factor extraction. The initial communality (before extraction) is always assumed to be 1. However after factor extraction, the communality will depend upon the amount of variance available for the analysis of the selected variable. Individually 100 percent variance is available for analyzing the variables/variables however after factors are extracted same variance is lost in the process. Hence it is required to analyze the remaining variance available for the analysis. The communality of the variable as shown in the table 5.80 indicates the proportion of variance explained by the variables after extraction by factor analysis.

Table 5.80 Initial and extracted communalities of variables under study

	Initial	Extraction
Employer is responsive and willing to make changes needed to acquire new techniques and skills.	1.000	.686
CEO and BOD are actively involved with leadership development activities of knowledge workers.	1.000	.720
Company is aware about the contribution of knowledge workers in achieving organizational goals.	1.000	.677

Focused on creative process for knowledge workers to improve knowledge management and collaborative project.	1.000	.780
Knowledge workers are motivated and encouraged by the management to upgrade their current skill set and knowledge.	1.000	.719
Provides flexible work arrangements for knowledge workers in order to perform their assigned tasks.	1.000	.769
Care for well-being of knowledge workers by making their lives easier and less stress.	1.000	.771
Mentoring relationships going on to build motivation and loyalty among knowledge workers	1.000	.786
Viewed the knowledge workers as corporate assets.	1.000	.756
New projects are used to address specific leader development needs of knowledge workers.	1.000	.808
Company is much concern about the career development and growth opportunities for knowledge workers in future.	1.000	.819
Organization has right pool of knowledge workers for its present and future strategies.	1.000	.810
Encourage and support knowledge workers to look at lateral roles as a growth option.	1.000	.779
Subjectively measures the knowledge workers on the basis of total contribution/team efforts and accountable for complex job assignments.	1.000	.632
Company consistently provides ongoing developmental feedback to support and encourage knowledge workers.	1.000	.761
Individual achievements of knowledge workers are recognized and rewarded by management.	1.000	.689
Employer motivates group cohesiveness	1.000	.789
Maximizing the value and potential of knowledge workers.	1.000	.760
Extraction Method: Principal Component Analysis.		

The result indicates that the initial communalities of each variable are found to be 1. However, the extracted communalities are less than 1. The result indicates that the extracted communalities of all the variables is found to be greater than 0.6. The

extracted communalities indicate the goodness of fit of the factor analysis. Higher the value of extracted communalities of variables better it is. Hence, all the variables can be included in the factor analysis. The factor analysis applies the process of principle component analysis in order to identify and estimate the Eigen value of principle components. After calculating the Eigen values of the components they are arranged in descending order with respect to calculated Eigen values. For the analysis the principle component having Eigen value more than 1 is selected for the study. The results of factor analysis after applying principle component analyses is shown in table 5.81.

Table 5.81 Principle Component Analysis

Total Variance Explained

Component	Initial Eigen values			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	9.302	51.678	51.678	9.302	51.678	51.678	3.675	20.418	20.418
2	1.628	9.045	60.723	1.628	9.045	60.723	3.581	19.895	40.314
3	1.459	8.107	68.830	1.459	8.107	68.830	3.163	17.574	57.888
4	1.122	6.236	75.066	1.122	6.236	75.066	3.092	17.178	75.066
5	.503	2.793	77.859						
6	.445	2.470	80.329						
7	.429	2.386	82.714						
8	.409	2.273	84.987						
9	.345	1.973	86.960						
10	.334	1.857	88.817						
11	.320	1.779	90.596						
12	.319	1.771	92.367						
13	.290	1.612	93.979						
14	.276	1.536	95.515						
15	.239	1.329	96.844						
16	.212	1.178	98.022						
17	.190	1.057	99.079						

18	.166	.921	100.000						
Extraction Method: Principal Component Analysis.									

The results indicate that the 18 variables considered for the study can be reduced to four principle components having Eigen values more than 1. These four factors explain approx. 75 percent of the variance of the included variables. Assuming that the explained variance is sufficient, the extracted factors will be used for further analysis.

In order to modify the extracted components representing the 18variables were considered for the study, orthogonal rotation (Varimax) is applied. The rotated component matrix (RCM) represents the factor loading of each variable to the extracted factors. The factor loadings can be defined as the correlation between the factors and the variables. It is assumed that every variable considered for the study must have significant factor loading to only one factor and insignificant factor loadings to all other extracted factors. The result of the rotated component matrix is shown below in table 5.82.

Table 5.82 Table Rotated Component Matrix

	Components			
	1	2	3	4
Company is aware about the contribution of knowledge workers in achieving organizational goals.	**.728**	.260	.209	.190
CEO and BOD are actively involved with leadership development activities of knowledge workers.	**.783**	.171	.239	.143
Employer is responsive and willing to make changes needed to acquire new techniques and skills.	**.771**	.184	.126	.203
Company consistently provides ongoing developmental feedback to support and encourage knowledge workers.	**.806**	.226	.190	.145
Employer motivates group cohesiveness	**.751**	.362	.234	.200
Individual achievements of knowledge workers are recognized and rewarded by management.	.348	**.695**	.192	.220
Subjectively measures the knowledge workers on the basis of total contribution/team efforts and accountable for	.202	**.737**	.157	.152
Knowledge workers are motivated and encouraged by the management to upgrade their current skill set and	.210	**.785**	.169	.173

Maximizing the value and potential of knowledge workers.	.261	**.756**	.226	.262
Encourage and support knowledge workers to look at lateral roles as a growth option.	.194	**.785**	.185	.301
Provides flexible work arrangements for knowledge workers in order to perform their assigned tasks.	.168	.235	.198	**.804**
Focused on creative process for knowledge workers to improve knowledge management and collaborative project.	.232	.227	.182	**.800**
Organization has right pool of knowledge workers for its present and future strategies.	.220	.277	.265	**.784**
New projects are used to address specific leader development needs of knowledge workers.	.211	.258	.382	**.742**
Care for well-being of knowledge workers by making their lives easier and less stress.	.254	.232	**.763**	.268
Viewed the knowledge workers as corporate assets.	.124	.141	**.822**	.213
Company is much concern about the career development and growth opportunities for knowledge workers in future.	.305	.192	**.798**	.229
Mentoring relationships going on to build motivation and loyalty among knowledge workers.	.254	.274	**.773**	.219
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization a. Rotation converged in 6 iterations.				

The result of rotated component matrix (RCM) indicates that the eighteen variables can be reduced to four extracted components. It is also found that all the variables have significant factor loadings to only one factor and insignificant factor loadings to other extracted factors. It is also observed from the results that the significant factor loadings for each factor is found to be greater than 0.7. Hence it can be concluded from the results that structure of the extracted factors from the variables satisfies the assumptions of convergent as well as discriminant validity. Analysing the variables having significant factor loadings to different factors. These factors can be named as in table no 5.83 as under:

Table 5.83 List of Factors Extracted (KWMS)	
Factors	**Name**
1	Employers Awareness
2	Reward, Recognition and Growth
3	Work policies and Arrangements
4	Employers concern and care
By researcher Analysis	

These factors are explained below in detail:

FACTOR 1 – EMPLOYERS AWARENESS

After applying EFA it is found that the factor **employer's awareness** consist of five major variables having significant loadings towards the factor. As found from the identified variables in the factor, the employers' awareness in business organisations is measured by the awareness of the top management about the contribution of knowledge workers in achieving organization goals. In case if top management of the company is actively involved with the leadership development activity of knowledge workers also represents the awareness level of employer. The level of employer's awareness is also perceived by their responsiveness and willingness in order to make necessary changes for acquiring new techniques and skills by knowledge workers. In addition to this if the employer consistently provides continuous feedback in order to support knowledge workers, motivate group cohesiveness also perceived as awareness level of employers about the knowledge workers. In the study the internal consistency of the factor is estimated with the help of Cronbach's alpha. The variables included in the factor ***employers' awareness*** is found to have the internal consistency, reliability (as measured by cronbach's alpha) of ***0.902*** which indicates the presence of sufficient internal consistency reliability in the factor. The descriptive analysis of the variables included in the factor is also estimated. The results of the descriptive analysis of the included variables in the factor are shown below in table 5.84.

Table 5.84 Employers Awareness					
Construct	Variables	Mean (S.D)	Skewness	Kurtosis	Internal Consistency Reliability
Employer Awareness	Company is aware about the contribution of knowledge workers in achieving organizational goals.	4.45 (1.52)	-.401	-.485	**0.902**
	CEO and BOD are actively involved with leadership development activities of knowledge workers.	4.60 (1.49)	-.440	-.520	
	Employer is responsive and willing to make changes needed to acquire new techniques and skills.	4.74 (1.44)	-.375	-.601	
	Company consistently provides ongoing developmental feedback to support and encourage knowledge workers	4.69 (1.45)	-.391	-.508	
	Employer motivates group cohesiveness	4.70 (1.35)	-.370	-.471	

The results indicates that the variables of the factor “Employers responsiveness and willing to make changes needed to acquire new techniques and skills” is found that to highest (4.74) followed by the statement “Employers motivate group cohesiveness” (4.70). The lowest score is found in case of statement “Company is aware about the contribution of knowledge workers in achieving organizational goals”.

FACTOR 2 - REWARDS, RECOGNITION AND GROWTH

The second factor extracted from EFA is named as **Rewards, Recognition and Growth**. The second factor consists of five major variables as shown in table. The included variables in the factor are found to have significant loadings towards the factor. As found from the identified variables in the factor, the rewards, recognition & growth in business organisations is measured by the policies and practices adopted by the employer for rewarding, motivating, encouraging, up gradation of their skill sets the contribution of knowledge workers their efforts by which organizations achieve their goals. In case if the employers continuously reward the achievements of knowledge workers also indicate the policies of top management about the rewards, recognition and growth. The level of rewards, recognition and growth is also perceived by their motivation, encouragement, accountability for assignments, potential of knowledge workers and their future growth opportunities. In addition to this if the employer consistently provides continuous recognition and growth opportunities to knowledge workers also perceived as good level of rewards, recognition & growth.

In the study the internal consistency of the factor is estimated with the help of Cronbach's alpha. The variables included in the factor ***Rewards, Recognition and Growth*** is found to have the internal consistency reliability (as measured by cronbach's alpha) of ***0.897*** which indicates the presence of sufficient internal consistency reliability in the factor. The descriptive analysis of the variables included in the factor is also estimated. The results of the descriptive analysis of the included variables in the factor are shown below in table 5.85.

Table 5.85 Rewards, Recognition and Growth

Construct	Variables	Mean (S.D)	Skewness	Kurtosis	Internal Consistency Reliability
	Individual achievements of knowledge workers are recognized and	4.45 (1.35)	-.450	-.133	

	rewarded by management.				
Rewards, Recognition and Growth	Subjectively measures the knowledge workers on the basis of total contribution/team efforts and accountable for complex job assignments.	4.50 (1.40)	-.487	-.225	**0.897**
	Knowledge workers are motivated and encouraged by the management to upgrade their current skill set and knowledge.	4.52 (1.41)	-.277	-.643	
	Maximizing the value and potential of knowledge workers.	4.58 (1.37)	-.329	-.587	
	Encourage and support knowledge workers to look at lateral roles as a growth option.	4.54 (1.45)	-.380	-.542	

The results indicates that the variables of the factor "Maximizing the value and potential of knowledge workers." is found that to highest (4.58) followed by the statement "Individual achievements of knowledge workers are recognized and rewarded by management". (4.45). The lowest score is found in case of statement "Subjectively measures the knowledge workers on the basis of total contribution/team efforts and accountable for complex job assignments".

FACTOR 3 - WORK POLCIES AND ARRANGEMENTS

The third factor extracted from the factor analysis is **Work Policies and Arrangements**. This factor consists of 4 variables. These variables have significantly loadings towards the factor. After applying the EFA the result found that the consisting variables regarding Work Policies & Arrangements are vital to the proper functioning of the organization these variables also motivates employees to stay for longer periods of time which enhance the productivity level of the organization to the maximum. The statement consisting like of the flexibility of arrangement of work for the knowledge workers, support and encouragement for acquire of knowledge and the process, the supply of knowledge workers as per the requirement and seeking the development of knowledge workers by assigning new tasks and projects.

In the level of internal consistency for the factor was determined with the help of Cronbach's alpha test. **Work Policies & Arrangements** factor variables are found significant for internal consistency reliability of ***(0.908)*** which state and indicates that internal consistency reliability is sufficient and acceptable in the factor. The descriptive analysis postulate the following analysis of statement as under in table 5.86.

Table 5.86 Work Policies & Arrangements

Construct	Variables	Mean (S.D)	Skewness	Kurtosis	Internal Consistency Reliability
	Provides flexible work arrangements for knowledge workers in order to perform their assigned tasks.	4.37 (1.58)	-.478	-.628	

Work Policies & Arrangements	Focused on creative process for knowledge workers to improve knowledge management and collaborative project.	4.41 (1.43)	-.358	-.781	**0.908**
	Organization has right pool of knowledge workers for its present and future strategies.	4.45 (1.47)	-.376	-.727	
	New projects are used to address specific leader development needs of knowledge workers.	4.48 (1.50)	-.365	-.662	

The results of descriptive study showed that indicates that the factor "New projects are used to address specific leader development needs of knowledge workers" is found to highest (4.48) followed by the statement "Organization has the right pool of knowledge workers for its present and future strategies" (4.45). The least was extracted by the statement "Flexible work arrangements for knowledge workers in order to perform their assigned tasks".

FACTOR 4 - EMPLOYERS' CONCERN AND CARE

The third factor extracted from the factor analysis is **Employers' Concern and Care**. This factor consists of 5 variables. These variables have significantly loadings towards the factor. After applying the EFA the result found that the consisting variables regarding Employers Concern and Care motivates employees to stay for longer periods of time which enhance the productivity level of the organization to the maximum. These

variables also have a significant of the retention and engagement of knowledge workers. This factor consist of variable like Individual achievements recognition, total contribution, skill set improvement and value for potentiality. In the level of internal consistency for the factor is determined with the help of Cronbach's alpha test. The factor variables are found internal consistency reliability of ***(0.904)*** which state and indicates that internal consistency reliability is sufficient and acceptable in the factor. The descriptive analysis postulate the following analysis of statement as under in table no 5.87.

Table 5.87 Employers Concern and Care

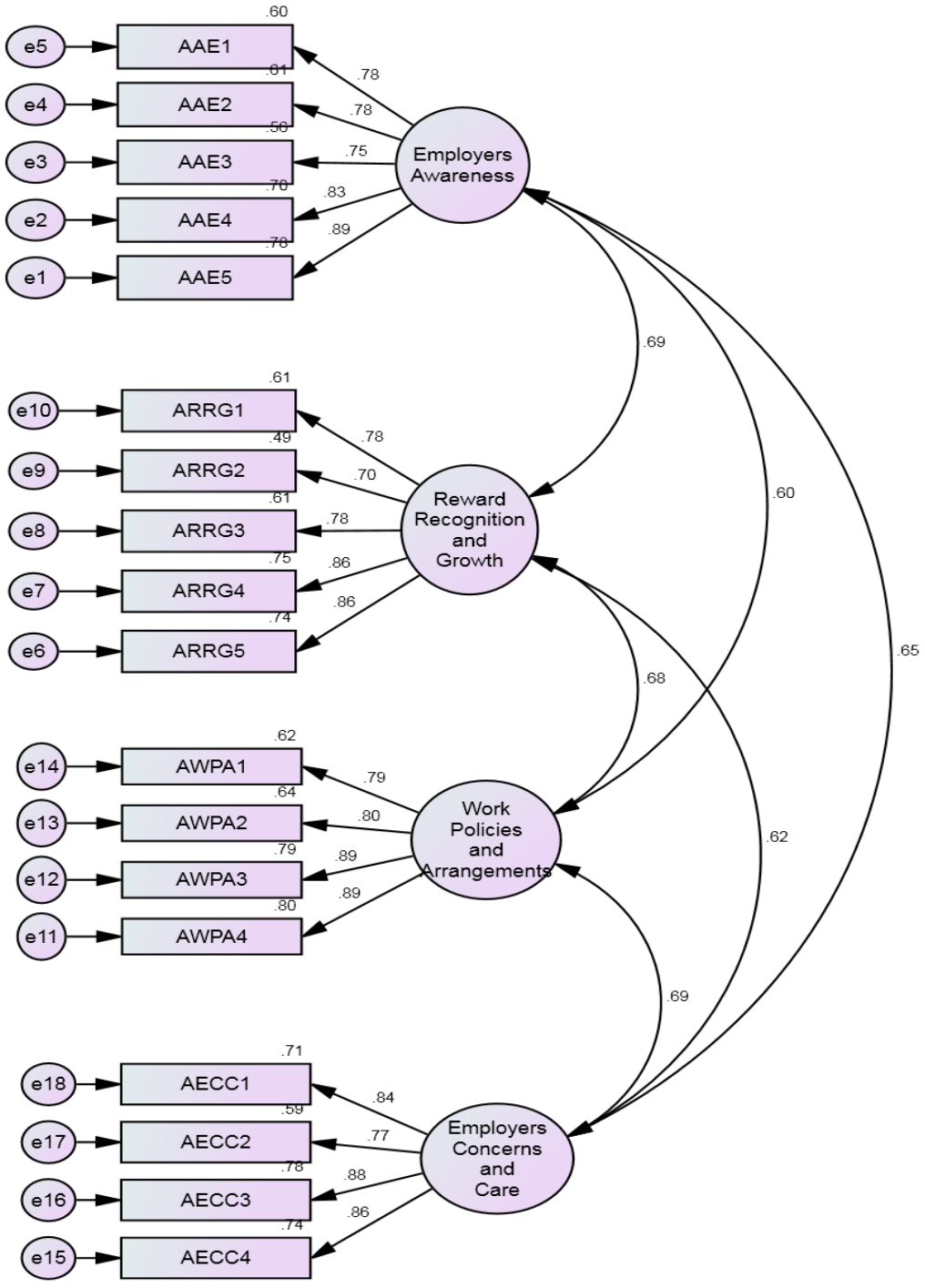
Construct	Variables	Mean (S.D)	Skewness	Kurtosis	Internal Consistency Reliability
Employers Concern & Care	Care for well-being of knowledge workers by making their lives easier and less stress.	4.48 (1.52)	-.335	-.683	**0.904**
	Viewed the knowledge workers as corporate assets.	4.45 (1.50)	-.396	-.630	
	Company is much concern about the career development and growth opportunities for knowledge workers in future.	4.60 (1.52)	-.443	-.604	
	Mentoring relationships going on to build motivation and loyalty among knowledge workers.	4.58 (1.56)	-.376	-.585	

The results of descriptive study showed that indicates that the factor *"*Knowledge workers are motivated and encouraged by the management to upgrade their current skill set and knowledge.*"* is found that to highest (4.60) followed by the statement *"*Maximizing the value and potential of knowledge workers.*". (4.58)*. The least was extracted by the statement *"*Individual achievements of knowledge workers are recognized and rewarded by management*"*.

5.4.1 Validity analysis of the identified factors using confirmatory factor analysis (CFA)

EFA is used in the study in order to identify the latent factors extracted from the variables used in the questionnaire. The EFA method is used for scale development in order to know the impact of KWMS on the knowledge workers in the study. Before applying SEM to achieve the objectives, it is required to test the construct validity of the identified scale of knowledge workers management strategies. Confirmatory factor analysis (hereafter CFA) is used to test the construct validity of the scale developed ***(in order to measure knowledge workers management strategies)*** in the process of applying exploratory factor analysis (EFA). Construct validity which includes both convergent as well as discriminant validity of the construct used in the scale can be tested with the help of confirmatory factor analysis (CFA). The convergent validity of the construct represent that how much the item/variables used in the study represent the construct (or factor) whereas discriminant validity analyse the level of cross loadings of the variables of one construct with the variables of other construct. The convergent validity of the constructs can be tested with the help of composite reliability (CR) statistics and average variance extracted (AVE) measure. The composite reliability of all the constructs should be greater than 0.7 and average variance extracted should also be greater than 0.5. In addition to this the composite reliability statistics of each construct should also be greater than its average variance extracted measure. The composite reliability represents of a construct represents the level of consistency reliability within the variables used in the construct whereas average variance extracted explains the variance of the used variables used which can be explained by the related construct. In order to ensure the presence of discriminant validity the average variance extracted measure of each construct should be greater than average shared variance (ASV) measure as well as maximum shared variance (MSV) measure of each construct. The confirmatory factor analysis is represented by the figure and tables below:

Figure 5.9 Confirmatory Factor Analysis (CFA)



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The table shown below that the composite reliability in case of all the constructs in the study are found to be greater than 0.7. In addition to this the average variance extracted measures of all the constructs are found to be greater than 0.5. Hence it can be concluded from the results of CFA that the constructs used in the study in the measurement have adequate convergent validity. In case of discriminant validity it is required to have low level of correlation between different pairs of variables representing different constructs. In other words the level of cross loading of the variables representing one construct with the variables of other constructs must be low. In order to examine the presence of discriminant validity in the constructs the shared variance between different constructs was compared with the average variance extracted measures of different constructs. The discriminant validity is ensured if it is found that the square of maximum shared variance is less than average variance extracted and square of average shared variance is less than average variance extracted statistics. The results shows that maximum shared variance of each construct is lower than average variance extracted measure and average shared variance is less than average variance extracted measure for all constructs which indicates the presence of sufficient discriminant validity. The results also indicate that the composite reliability of the entire construct are found to be greater than 0.7 and average variance extracted greater than 0.5. Hence the convergent validity of the scale used in the study is ensured. In addition to this the average variance extracted is found to be greater than average shared variance as well as maximum shared variance, which ensures the presence of discriminant validity of the scale.

Since the construct validity of the scale used in order to measure the ***knowledge workers management strategies*** in the selected organisations is ensured, the construct can be used in the SEM method to study the impact of *knowledge worker's management strategies* in on the KW engagement and retention in the IT organisations in India.

Table 5.88 Construct Validity

	CR	**AVE**	**MSV**	**MaxR(H)**	**WPA**	**EA**	**RRG**	**ECC**
WPA	0.909	0.714	0.480	0.919	**0.845**			
EA	0.903	0.651	0.476	0.956	0.603	**0.807**		
RRG	0.898	0.640	0.476	0.969	0.681	0.690	**0.800**	
ECC	0.905	0.704	0.480	0.977	0.693	0.646	0.620	**0.839**

Table 5.89 SEM Measurement Model				
CMIN/DF	**GFI**	**RMR**	**CFI**	**RMSEA**
2.099	.942	.067	.978	.047

The table indicates the goodness of fit indices of the measurement model. The fitness indices of the CFA model indicates that the CFA is statistically fit and the different constructs can be used in the SEM.

5.4.2 Impact of demographic profile on knowledge workers management strategies (ANOVA BASED)

In the IT industry the employees belongs to different category of companies such as small, medium and top level on the basis of the turnover. The employees with different category of companies may have different exposure, and working culture in the companies. Their understanding of Knowledge workers management strategies (KWMS) by the companies may be different. In the study the efforts is done in order to analyse the difference in the perceptions of employees working with selected organisations in India with respect to the different knowledge workers management strategies adopted by the companies. One way analysis of variance (ANOVA) is applied in the study to test the presence of difference in the perception of employees with different companies, experience with the current company and age of the respondent's. The null hypothesis of one way ANOVA is mentioned below:

5.4.3 Perception towards knowledge workers management strategies

After the analysis of literature review and advice from experts it is found that group of companies, experience with the current organization and age of the respondents are important factors in the context of this study affects the retention of knowledge workers in the organisation. For more clarification of these three factors, ANOVA test is applied to see the perception of knowledge workers in management strategies adopted by the organization.

Result of ANOVA revealed the perception of knowledge workers towards the knowledge workers management strategies, on the basis of group of company, experience and age of the respondent. Result of Analysis of variance indicates that the probability value of **f - statistic** for all the factors representing the knowledge workers

management strategies adopted by the companies is found to be less than 5 percent level of significant.

The result of one way ANOVA is shown in tables below:

5.4.4 On the basis of group of companies

H_{07}: The perception of the knowledge worker's working with different category of companies towards knowledge worker's management strategies adopted by their employer is same.

Table 5.90 Employers Awareness

Construct Name	Groups	Mean (S.D)	F-Stat (P- Value)
Employers Awareness	Top	5.087 (.995)	66.788 (.000)
	Medium	4.736 (.875)	
	Small	3.825 (1.187)	

The result of Employers awareness indicates that the probability value of f statistic for all the factors representing the knowledge workers management strategies adopted by the companies is found to be less than 5 percent level of significant. Hence, the null hypothesis that the perception of knowledge workers with different group of companies towards knowledge workers management practices is same cannot be accepted. It is observed that the mean score of employees with top companies is found to be higher as compared to the employees of medium and small companies. It means the employees in the medium and small companies perceive that there exists low level of knowledge workers management strategies as compared to the employees of top companies.

Table 5.91 Reward Recognition and Growth			
Construct Name	**Groups**	**Mean (S.D)**	**F-Stat (P- Value)**
Reward Recognition and Growth	Top	5.300 (1.121)	50.062 (.000)
	Medium	4.882 (.928)	
	Small	4.110 (1.230)	

The result of **Reward Recognition and Growth** indicates that the probability value of f statistic for all the factors representing the knowledge worker's management strategies adopted by the companies is found to be less than 5 percent level of significant. Hence, the null hypothesis that the perception of employees with different group of companies towards knowledge worker's management strategies is same cannot be accepted. It is observed that the mean score of employees with top companies is found to be higher as compared to the employees of medium and small companies. It means the employees in the medium and small companies perceive that there exists low level of knowledge worker's management strategies as compared to the employees of top companies.

Table 5.92 Work Policies and Arrangements			
Construct Name	**Groups**	**Mean (S.D)**	**F-Stat (P- Value)**
Work Policies and Arrangements	Top	5.206 (1.186)	53.759 (.000)
	Medium	4.636 (.998)	
	Small	3.871 (1.332)	

The result of **Work Policies and Arrangements** indicates that the probability value of f statistic for all the factors representing the knowledge worker's management strategies adopted by the companies is found to be less than 5 percent level of significant. Hence, the null hypothesis that the perception of employees with different group of companies

towards knowledge worker's management strategies is same cannot be accepted. It is observed that the mean score of employees with top companies is found to be higher as compared to the employees of medium and small companies. It means the employees in the medium and small companies perceive that there exists low level of knowledge worker's management strategies as compared to the employees of top companies.

Table 5.93 Employers Concern & Care

Construct Name	Groups	Mean (S.D)	F-Stat (P- Value)
Employers Concern & Care	Top	5.227 (1.192)	65.876 (.000)
	Medium	4.739 (.935)	
	Small	3.806 (1.287)	

The result of **Employers Concern and Care** indicates that the probability value of f statistic for all the factors representing the knowledge worker's management strategies adopted by the companies is found to be less than 5 percent level of significant. Hence, the null hypothesis that the perception of employees with different group of companies towards knowledge worker's management strategies is same cannot be accepted. It is observed that the mean score of employees with top companies is found to be higher as compared to the employees of medium and small companies. It means the employees in the medium and small companies perceive that there exists low level of knowledge worker's management strategies as compared to the employees of top companies.

5.4.5 Experience with current organization

H_{08}: The perception of the knowledge worker's working with the current organization in terms of experience towards knowledge worker's management strategies adopted by their employer is same.

Table 5.94 Employers Awareness			
Construct Name	**Groups**	**Mean (S.D)**	**F-Stat (P- Value)**
Employers' Awareness	> 3 Years	3.071 (.724)	527.047 (.000)
	3-5 Years	4.384 (.758)	
	< 5 Years	5.471 (.521)	

The result of **Employers Awareness** indicates that the probability value of f statistic for all the factors representing the knowledge worker's management strategies adopted by the companies is found to be less than 5 percent level of significant. The perception of employees working with current organization experience knowledge worker's management strategies adopted by their employer is same cannot be accepted. It is observed that the mean score of employees with more than 5 Years of experience in current company is found to be higher as compared to the employees working for less than 5 Years in current organization. It means the employees in the less than 5 Years of experience in current company perceive that there exists low level of knowledge worker's management strategies compared to the employees having more than 5 Years of experience.

Table 5.95 Reward Recognition and Growth			
Construct Name	**Groups**	**Mean (S.D)**	**F-Stat (P- Value)**
Reward Recognition and Growth	> 3 Years	3.245 (.688)	502.235 (.000)
	3-5 Years	4.455 (.767)	
	< 5 Years	5.730 (.638)	

The result of **Reward Recognition & Growth** indicates that the probability value of f statistic for all the factors representing the knowledge worker's management strategies adopted by the companies is found to be less than 5 percent level of significant. The perception of employees working with current organization experience towards knowledge worker's management strategies adopted by their employer is same cannot be accepted. It is observed that the mean score of employees with more than 5 Years of experience in current company is found to be higher as compared to the employees working for less than 5 Years in current organization. It means the employees in the less than 5 Years of experience in current company perceive that there exists low level of knowledge worker's management strategies as compared to the employees having more than 5 Years of experience.

Table 5.96 Work Policies & Arrangements

Construct Name	Groups	Mean (S.D)	F-Stat (P- Value)
Work Policies & Arrangements	> 3 Years	3.245 (.688)	502.235 (.000)
	3-5 Years	4.455 (.767)	
	< 5 Years	5.730 (.638)	

The result of **Work Policies & Arrangements** indicates that the probability value of f statistic for all the factors representing the knowledge worker's management strategies adopted by the companies is found to be less than 5 percent level of significant. The perception of employees working with current organization experience towards knowledge worker's management strategies adopted by their employer is same cannot be accepted. It is observed that the mean score of employees with more than 5 Years of experience in current company is found to be higher as compared to the employees working for less than 5 Years in current organization. It means the employees in the less than 5 Years of experience in current company perceive that there exists low level of knowledge worker's management strategies as compared to the employees having more than 5 Years of experience.

Table 5.97 Employers Concern & Care			
Construct Name	**Groups**	**Mean (S.D)**	**F-Stat (P- Value)**
Employers' Concern and Care	> 3 Years	2.976 (.779)	501.895 (.000)
	3-5 Years	4.374 (.800)	
	< 5 Years	5.624 (.676)	

The result of **Employers Concern & Care** indicates that the probability value of f statistic for all the factors representing the knowledge worker's management strategies adopted by the companies is found to be less than 5 percent level of significant. The perception of employees working with current organization experience towards knowledge worker's management strategies adopted by their employer is same cannot be accepted. It is observed that the mean score of employees with more than 5 Years of experience in current company is found to be higher as compared to the employees working for less than 5 Years in current organization. It means the employees in the less than 5 Years of experience in current company perceive that there exists low level of knowledge worker's management strategies as compared to the employees having more than 5 Years of experience.

5.4.6 Age of the respondents

H_{09}: The perception of the knowledge worker's about the age and its impact on knowledge worker's management strategies adopted by their employer is same.

Table 5.98 Employers Awareness			
Construct Name	**Groups**	**Mean (S.D)**	**F-Stat (P- Value)**
	< 30 Years	2.893 (.673)	
	30- 35 Years	4.028	297.074

Employers' Awareness		(.871)	(.000)
	35- 45 Years	5.000 (.677)	
	>45 Years	5.610 (.435)	

The result of **Employers Concern & Care** indicates that the probability value of f statistic for all the factors representing the knowledge worker's management strategies adopted by the companies is found to be less than 5 percent level of significant. The perception of knowledge worker's age towards knowledge worker's management strategies adopted by their employer is same cannot be accepted. It is observed that the mean score of employee's age more than 45 years is found to be higher as compared to the employees having age of less than 45 years. It means the employee's age between 30 to 45 years perceive that there exists low level of knowledge worker's management strategies as compared to the employees aging more than 45 years.

Table 5.99 Reward Recognition & Growth

Construct Name	Groups	Mean (S.D)	F-Stat (P- Value)
Reward Recognition & Growth	< 30 Years	3.181 (.681)	334.483 (.000)
	30- 35 Years	4.109 (.872)	
	35- 45 Years	5.145 (.670)	
	>45 Years	5.988 (.449)	

The result of **Reward Recognition & Growth** indicates that the probability value of f statistic for all the factors representing the knowledge worker's management strategies adopted by the companies is found to be less than 5 percent level of significant. The perception of knowledge worker's age towards knowledge worker's management strategies adopted by their employer is same cannot be accepted. It is observed that the mean score of employee's age more than 45 years is found to be higher as compared to

the employees having age of less than 45 years. It means the employee's age between 30 to 45 years perceive that there exists low level of knowledge worker's management strategies as compared to the employees aging more than 45 years.

Table 5.100 Work Policies & Arrangements			
Construct Name	**Groups**	**Mean (S.D)**	**F-Stat (P- Value)**
Work Policies & Arrangements	< 30 Years	2.849 (.741)	428.993 (.000)
	30- 35 Years	3.780 (.822)	
	35- 45 Years	5.093 (.695)	
	>45 Years	5.913 (.437)	

The result of **Work Policies & Arrangements** indicates that the probability value of f statistic for all the factors representing the knowledge worker's management strategies adopted by the companies is found to be less than 5 percent level of significant. The perception of knowledge worker's age towards knowledge worker's management strategies adopted by their employer is same cannot be accepted. It is observed that the mean score of employee's age more than 45 years is found to be higher as compared to the employees having age of less than 45 years. It means the employee's age between 30 to 45 years perceive that there exists low level of knowledge worker's management strategies as compared to the employees aging more than 45 years.

Table 5.101 Employers Concern & Care			
Construct Name	**Groups**	**Mean (S.D)**	**F-Stat (P- Value)**
	< 30 Years	2.846 (.787)	345.207 (.000)
	30- 35 Years	3.894 (.861)	

Employers' Concern & Care	35- 45 Years	5.087 (.715)	
	>45 Years	5.861 (.544)	

The result of **Employers' Concern & Care** indicates that the probability value of f statistic for all the factors representing the knowledge worker's management strategies adopted by the companies is found to be less than 5 percent level of significant. The perception of knowledge worker's age towards knowledge worker's management strategies adopted by their employer is same cannot be accepted. It is observed that the mean score of employee's age more than 45 years is found to be higher as compared to the employees having age of less than 45 years. It means the employee's age between 30 to 45 years perceives that there exists low level of knowledge worker's management strategies as compared to the employees aging more than 45 years.

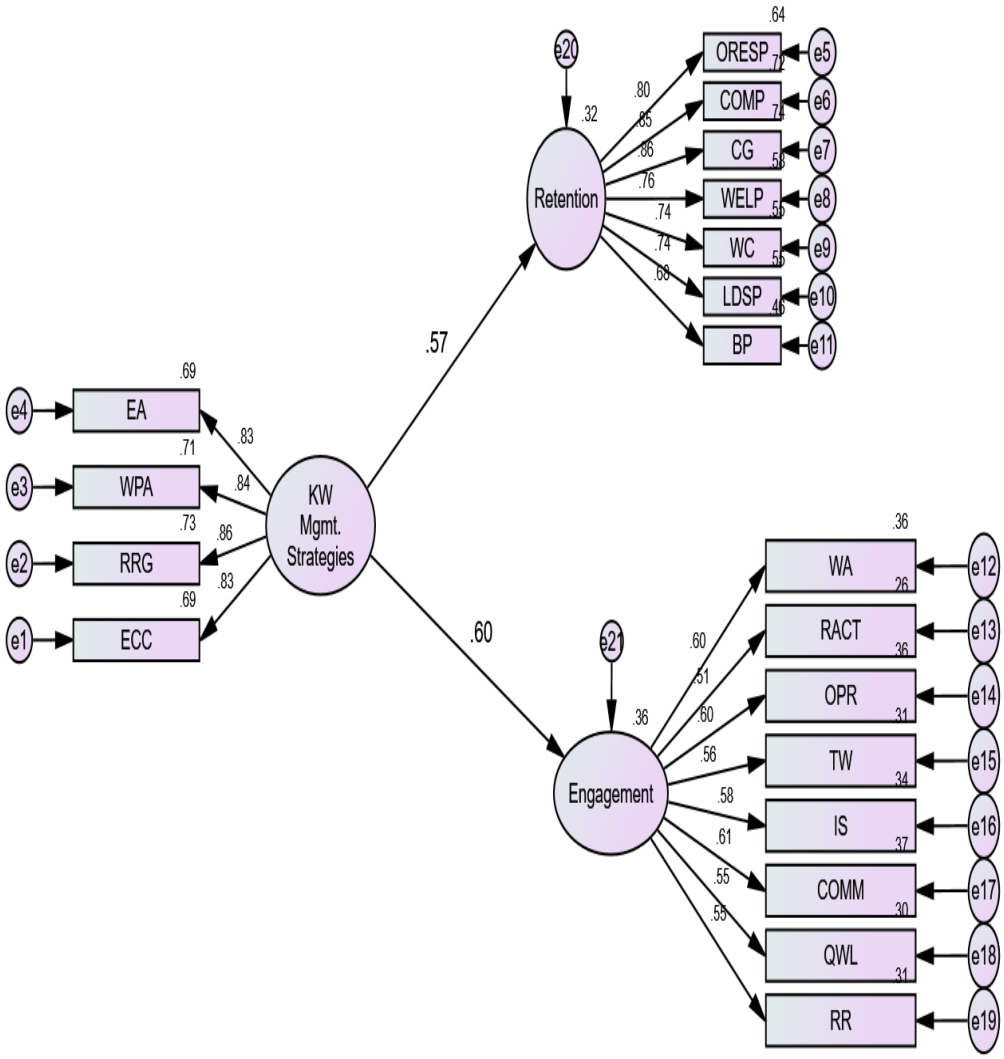
5.5 IMPACT OF KNOWLEDGE WORKERS MANAGEMENT STRATEGIES ON ENGAGEMENT AND RETENTION

In order to "investigate the Knowledge workers management strategies and its relationship to the engagement and retention in IT organizations" the structural equation model (SEM) approach is used in the study. Knowledge workers are the key to success for organisations and their management has been proven to be a necessary element in information technology industry. The companies in IT sector are achieving their organizational goals with the help of such knowledge workers. In order to sustain and expand their operation globally, IT companies bring new approaches and practices to knowledge workers management strategies in order to enhance employee engagement and retention. The objective of this research study is to understand the KWMS adopted by the IT companies in India and to study its impact on engagement and retention. Successful KWMS adopted by the IT companies in the present era of global competition helps in attracting talented professionals in the industry and contribute value addition for business competitiveness. In the research study the knowledge workers management strategies is measured with the help of different variables used in the questionnaire. In addition to this the variables indicating KW engagement and retention are also included in the questionnaire. The data is collected on interval scale. The structural equation model

approach is used in the study in order to analyse the impact of knowledge workers management strategies on the level of KW engagement and retention.

The structural equation modelling diagram is shown below in fig 5.11.

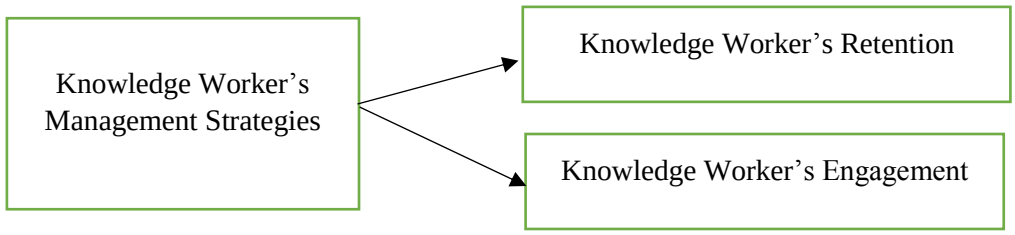
Figure 5.10 Relationship between Knowledge workers Management Strategies and knowledge workers engagement and retention



Compiled by the Researcher

Suggested Model for the Study on the basis of SEM

Figure 5.11 Impact of Knowledge Workers management strategies on knowledge workers engagement and retention



(Source: Designed by the Researcher)

The result of the structural equation modelling analysis is shown below in table 5.101.

Table 5.102 Regression Weights

Endogenous Construct		Exogenous Construct	Unstandardized Regression coefficient	Standardised Regression coefficient	Standard Error (S.E.)	Critical Ratio (C.R.)	P Value	R Square
Engagement	<---	KW Management Strategies	.492	.600	.051	9.675	***	35.7 %
Retention	<---	KW Management Strategies	.486	.570	.042	11.667	***	32.3 %
ECC	<---	KW Management Strategies	1.000	.829				
RRG	<---	KW Management Strategies	.965	.856	.042	22.721	***	
WPA	<---	KW Management Strategies	1.024	.842	.046	22.193	***	
EA	<---	KW Management Strategies	.899	.832	.041	21.805	***	

Table 5.102 Regression Weights								
Endogenous Construct		**Exogenous Construct**	**Unstandardized Regression coefficient**	**Standardised Regression coefficient**	**Standard Error (S.E.)**	**Critical Ratio (C.R.)**	**P Value**	**R Square**
WA	<---	Engagement	1.000	.597				
RACT	<---	Engagement	.545	.514	.059	9.197	***	
OPR	<---	Engagement	.975	.602	.094	10.339	***	
TW	<---	Engagement	.820	.560	.084	9.812	***	
IS	<---	Engagement	.891	.583	.088	10.106	***	
COMM	<---	Engagement	.893	.606	.086	10.390	***	
QWL	<---	Engagement	.819	.546	.085	9.626	***	
RR	<---	Engagement	.913	.453	.094	9.727	***	
ORESP	<---	Retention	1.000	.800				
COMP	<---	Retention	1.112	.848	.052	21.583	***	
CG	<---	Retention	1.137	.860	.052	22.011	***	
WELP	<---	Retention	.997	.764	.053	18.788	***	
WC	<---	Retention	.075	.740	.060	18.020	***	
LDSP	<---	Retention	1.065	.745	.059	18.172	***	

Table 5.102 Regression Weights								
Endogenous Construct		**Exogenous Construct**	**Unstandardized Regression coefficient**	**Standardised Regression coefficient**	**Standard Error (S.E.)**	**Critical Ratio (C.R.)**	**P Value**	**R Square**
BP	<---	Retention	1.056	.680	.065	16.227	***	
Compiled by the researcher								

The result of the SEM reject the null hypothesis (H_{10}) that there is no relationship between Knowledge workers management strategies and knowledge workers engagement and retention. The results of SEM indicates that the probability value of all the relationship (hypothesis assumed) from Knowledge Workers management strategies to KW engagement and retention is found to be less than 5 percent level of significance. Hence, with 95 percent confidence level, *it can be concluded that the Knowledge workers management strategies adopted by the IT companies in India have significant impact on knowledge workers engagement and retention.* The standardized beta of knowledge Workers (KW) engagement and retention is found to be **0.*601*** and ***0.571*** which indicates that the impact on KW management strategies is positive on both KW engagement and retention. From the standardized beta of the KW engagement and retention, it can also be concluded that KWMS have more positive impact on KW retention as compared to engagement.

While interviewing IT knowledge workers, it was observed that IT companies are good pay masters however one of the reasons for the higher attrition rate is career growth in other companies. Employees either switch companies frequently or try to leave the country for better growth prospects. In the present study, it has been observed that KWMS is one component by which employees get motivated and as a result of this will try to stay for a long period. Employees have shared that they are willing to contribute the maximum if the company recognises their potential and provides opportunities to develop further.

The R square of the KW engagement and retention in SEM model is found to be ***0.34*** and ***0.32*** percent which indicates that ***34 percent*** and ***32 percent*** of the variance in KW engagement and retention can be explained by KWMS worker performed by the IT companies.

The goodness of fit indices of the SEM model are estimated and shown below:

Table 5.103 Statistical Fitness Index

CMIN/DF	GFI	AGFI	CFI	RMSEA
2.378	.930	.911	.945	0.08

The result of statistical fitness index indicates that the SEM model is statistically fit and can be generalised for further studies.

CHAPTER -VI

FINDINGS AND CONCLUSION

INTRODUCION

This chapter summarizes the key findings, suggestion and conclusion based on the analysis of data collected for study objectives. The current study was aimed at exploring and analyzing the knowledge workers management strategies and its relationship to engagement and retention in Indian Information Technology sector. The knowledge workers management, retention and engagement strategies/practices were studied and analyzed based on the opinion of IT professional from selected twelve companies with eighty variables from 501 respondents having positions of software engineers, web developers, programmers, data analysts etc.

FINDINGS OF PRESENTLY PREVAILING KNOWLEDGE WORKERS ENGAGEMENT, RETENTION AND MANAGEMENT STRATEGIES IN INDIAN IT SECTOR

The current study aimed to investigate the Knowledge workers management strategies and its relationship to employee retention and level of engagement in IT organizations in India. The other aim is to examine the factors influencing the retention and engagement of Knowledge workers in Indian IT industry, and to explore the current and proposed employee engagement and retention strategies in Indian IT industry and to suggest Knowledge workers retention and engagement innovative strategies to IT companies. With the help of sampling frame 501 was the final sample size that have been taken as sample size from all 12 companies. In the light of results and discussions, the major findings and conclusions were restated and presented in the following. Based on these research findings a few suggestions have been recommended for the IT companies in India.

The data was collected with the help of structured questionnaire. Appropriate statistical tools like frequency, descriptive tests, exploratory factor analysis, confirmatory factor analysis, analysis of variance (ANOVA) and structural equation modelling were administered. Based on the outcomes discussions, the major findings, suggestions and conclusions were summarize and presented in this chapter and based on these findings a few suggestions have been recommended for the organizations.

6.1 FINDINGS ON THE BASIS OF THE KNOWLEDGE WORKERS ENGAGEMENT PRACTICES IN INDIAN IT SECTOR

In order "***To examine the factors influencing engagement of Knowledge workers in Indian IT industry,*** exploratory factor analysis (EFA) statistical method is applied. The statistical result of KMO test indicates that the KMO statistic is found to be 0.910 which indicates the presence of required sampling adequacy in the data set collected in the study.

Thirty Three statements related to different knowledge workers engagement practices adopted by different IT companies in India are included in the questionnaire. The statistical result of KMO test indicates that the KMO statistic is found to be 0.900 which indicates the presence of required sampling adequacy in the data set collected in the study. The KMO value of 0.900 also represents the adequacy of enough variations in the responses against the statements which is a necessary condition to apply EFA.

The result of rotated component matrix (RCM) indicates that the 33 statements can be reduced to eight extracted components, components having Eigen values more than 1. These eight factors explain approx. 75 percent of the variance of the included statements. It is also observes from the results that the significant factor loadings for each factor is found to be greater than 0.7.

1. Factors extracted were named as: Work Assignments, Rewards & Recognition, Opportunities, Team Work, Immediate Supervisor, Communication, Quality of Work Life and Recreational Activities.
2. After applying EFA, the first factor extracted is **Work Assignments,** concludes five statements and the result of these statements has shown the significant loading towards the factor work assignment. The descriptive test results indicates that "I am proud to say that I work at this company" has highest mean as compare to others in the factor work assignment" (4.26). The level of internal consistency reliability is calculated with test cronbach's alpha and was measured (0.895) which is significant.
3. The second factor identified is **Rewards & Recognition,** consists of four major statements as shown in table. The included statements in the factor are found to have significant loadings towards the factor. The descriptive test results indicates that "Training and Development programmes are effective and

schedule on time" has highest mean as compare to others in the factor rewards and recognition (4.72). The statements included in the factor *Rewards &Recognition*s found to have the internal consistency reliability (as measured by cronbach's alpha) of (0.927) which indicates the presence of sufficient internal consistency reliability in the factor.

4. The third factor identified is **Opportunities,** consists of four major variables having significant loadings towards the factor. The results of descriptive test results indicates that "In the last year, I have had opportunities to learn and grow" has highest mean as compare to others in the factor Opportunities (4.75). The statements included in the factor Opportunities is found to have the internal consistency reliability (as measured by cronbach's alpha) of (0.935) which indicates the presence of sufficient internal consistency reliability in the factor.
5. The fourth factor identified is **Team Work,** consists of 4 statements. These statements have significantly loadings towards the factor. The results of descriptive test results indicates that "I enjoy working with my co-Workers." has highest mean as compare to others in the factor Team Work (4.62). In the level of internal consistency for the factor is determined with the help of Cronbach's alpha test. Team Work factor statements are found internal consistency reliability of **(0.930)** which state and indicates that internal consistency reliability is sufficient and acceptable in the factor.
6. The fifth factor identified is **Immediate Supervisor,** consists of four statements and the result of EFA stated that the all four statements have a significant loading on the factor Immediate Supervisor**.** The results of descriptive test results indicates that "There is good communication between me and my superior" has highest mean in the factor Immediate Supervisor (4.66). The internal level of consistency reliability is extracted with use of cronbach's alpha test (0.904).
7. The sixth factor identified is **Communication,** consists of 4 statements. These statements have significantly loadings towards the factor. The results of descriptive test results indicates that "All the communication done in a scheduled way and order." Has highest mean in the factor Communication (4.79). The level of internal consistency for the factor is determined with the help of Cronbach's alpha test. Communication factor statements are found

internal consistency reliability of **(0.924)** which state and indicates that internal consistency reliability is sufficient and acceptable in the factor.

8. The seventh factor identified is **Quality of Work Life,** consist of four major variables having significant loadings towards the factor. The results of descriptive test results indicates that "Company cares for my security and health" has the highest mean in the factor quality of work life (4.73). The statements included in the factor Quality of Work Life is found to have the internal consistency reliability (as measured by cronbach's alpha) of (0.921) which indicates the presence of sufficient internal consistency reliability in the factor.
9. The eighth factor identified is **Recreational Activities,** factor consist of 4 statements. These statements have significantly loadings towards the factor. The results of descriptive test results indicates that "Recreational Facilities leads to Employee engagement and retention" has the highest mean in the factor recreational activities (4.79). Factor statements were found internal consistency reliability of **(0.910)** which state and indicates that internal consistency reliability is sufficient and acceptable in the factor.
10. Confirmatory factor analysis (hereafter CFA) is used to test the construct validity of the scale developed *(in order to measure knowledge workers engagement strategies)* in the process of applying EFA. The results also indicate that the composite reliability of the entire construct are found to be greater than 0.7 and average variance extracted greater than 0.5. Hence the convergent validity of the scale used in the study is ensured. The measurement model was developed with help of AMOS which indicates the goodness of fit indices of the measurement model. The fitness indices of the CFA model indicates that the CFA is statistically fit and the different constructs can be used in the SEM. The results of the model were as, CMIN/DF (1.43), GFI (.925), RMR (.099), CFI (.984) and RMSEA (.029) indicates the goodness of the fit of the model.

6.2 FINDINGS ON THE BSASIS OF THE IMPACT OF DEMOGRAPHIC PROFILE ON KNOWLEDGE WORKERS ENAGAGEMENT PRACTICES

After the analysis of literature review and advice from experts it is found that these factors are important in the context of this study. The factors are extracted named as the group of companies, experience with the current organization and age of the

respondents affects the engagement of knowledge workers in the organisation. For more clarification of these three factors, ANOVA test is applied to see the perception of knowledge workers in engagement practices adopted by the organization.

Result of ANOVA revealed the perception of knowledge workers towards the *knowledge workers engagement practices,* on the basis of group of company, experience and age of the respondent. Result of Analysis of variance indicates that the probability value of **f - statistic** for all the factors representing the *knowledge workers engagement practices* adopted by the companies is found to be less than 5 percent level of significant.

These factors are explained as below:

6.2.1 On the Basis of Companies Group

1. The result of **Work Assignment** observes that the mean score of employees with top companies is found to be higher as compared to the employees of medium and small companies. The result of **Rewards and Recognition** observes that the mean score of employee's with top companies is found to be higher as compared to the employees of medium and small companies.
2. The result of **Opportunities** observes that the mean score of employees with top companies is found to be higher as compared to the employees of medium and small companies. The result of **Team Work** observes that the mean score of employees with top companies is found to be higher as compared to the employees of medium and small companies.
3. The result of **Immediate Supervisor** observes that the mean score of employees with top companies is found to be higher as compared to the employees of medium and small companies. The result of **Communication** observes that the mean score of employees with top companies is found to be higher as compared to the employees of medium and small companies.
4. The result of **Quality of Work Life** observes that the mean score of employees with top companies is found to be higher as compared to the employees of medium and small companies. The result of **Recreational Activities** observes that the mean score of employees with top companies is found to be higher as compared to the employees of medium and small companies.

6.2.2 On the basis of the Experience with Current Organization

1. The result of **Work Assignment observes** that the mean score of employees with more than 5 Years of experience in current company is found to be higher as compared to the employees working for less than 5 Years in current organization. The result of **Rewards and Recognition observes** that the mean score of employees with more than 5 Years of experience in current company is found to be higher as compared to the employees working for less than 5 Years in current organization.
2. The result of **Team Work observes** that the mean score of employees with more than 5 Years of experience in current company is found to be higher as compared to the employees working for less than 5 Years in current organization. The result of **Opportunities observes** that the mean score of employees with more than 5 Years of experience in current company is found to be higher as compared to the employees working for less than 5 Years in current organization.
3. The result of **Immediate Supervisor observes** that the mean score of employees with more than 5 Years of experience in current company is found to be higher as compared to the employees working for less than 5 Years in current organization. The result of **Communication observes** that the mean score of employees with more than 5 Years of experience in current company is found to be higher as compared to the employees working for less than 5 Years in current organization.
4. The result of **Quality of Work Life observes** that the mean score of employees with more than 5 Years of experience in current company is found to be higher as compared to the employees working for less than 5 Years in current organization. The result of **Recreational Activities observes** that the mean score of employees with more than 5 Years of experience in current company is found to be higher as compared to the employees working for less than 5 Years in current organization.

6.2.3 On the basis of the Age of the Respondents

1. The result of **Work Assignment** observes that the mean score of employee's age more than 45 years is found to be higher as compared to the employees

having age of less than 45 years. The result of **Rewards and Recognition** observes that the mean score of employee's age more than 45 years is found to be higher as compared to the employees having age of less than 45 years.

2. The result of **Team Work** observes that the mean score of employee's age more than 45 years is found to be higher as compared to the employees having age of less than 45 years. The result of **Opportunities** observes that the mean score of employee's age more than 45 years is found to be higher as compared to the employees having age of less than 45 years.
3. The result of **Immediate Supervisor** observes that the mean score of employee's age more than 45 years is found to be higher as compared to the employees having age of less than 45 years. The result of **Communication Supervisor** observes that the mean score of employee's age more than 45 years is found to be higher as compared to the employees having age of less than 45 years.
4. The result of **Quality of Work Life observes** that the mean score of employee's age more than 45 years is found to be higher as compared to the employees having age of less than 45 years. The result of **Recreational Activities observes** that the mean score of employee's age more than 45 years is found to be higher as compared to the employees having age of less than 45 years.

6.3 FINDINGS ON THE BSASIS OF THE KNOWLEDGE WORKERS RETENTION PRACTICES IN INDIAN IT SECTOR

In order to measure different aspects of knowledge workers retention practices adopted by IT companies in India, exploratory factor analysis (EFA) statistical method is applied. The statistical result of KMO test indicates that the KMO statistic is found to be 0.910 which indicates the presence of required sampling adequacy in the data set collected in the study. The results of Bartlett test indicate that p value of Chi-square statistic is found to be less than 5 percent level of significance.

The result of rotated component matrix (RCM) indicates that the *twenty nine* statements can be reduced to seven extracted components, components having Eigen values more than 1. These eight factors explain approx. 75 percent of the variance of the included statements. It is also observes from the results that the significant factor loadings for each factor is found to be greater than 0.7.

1. Factors extracted were named as: Overall Relationship, Compensation, Career, Work life programmes, Culture, leadership and Benefits programmes.
2. After applying EFA, the first factor extracted is **Overall Relationship,** consist of 6 variables. All the statements show the significant loading towards the factor. The results clearly mentioned that the factor "Satisfied with senior's leadership's vision" is found to the highest in the factor overall relationship (4.67). The present study identifies the internal level of consistency with the use of Cronbach's alpha test and the results for the factor Overall Relationship is (0.904) is indicates the sufficient level of internal consistency.
3. The second factor extracted is **Compensation structure**. The results of EFA stated that the factor compensation consist of 4 statements. As per the test of EFA there is a significant loading by the each statement on the factor. The results of descriptive study indicates clearly mentions that the statement "I receives perks and incentives for assignment completion "is found to be greater than all in the factor compensation (4.62). The result of cronbach's alpha test signifies the level of internal consistency for the factor compensation that is (0.877).
4. The third factor identified is **Career growth,** consists of 4 statements and the results extracted from EFA stated that each statement has the significant loadings on the factor. The results of descriptive study stated that "My job responsibilities at Company allow me opportunity to do what I do best every day "is found to be greater than all in the factor career (4.62). The internal level of consistency is found sufficient with the help of cronbach's alpha test **(0.912)**.
5. The forth factor identified is **Work life programmes,** having 6 statements and having significant loading towards the factor. The descriptive analysis concludes that "My physical space at company allows me to work efficiently" is found to be greater than all the statements in the factor work life programmes (4.68). The all variables consisting in the factor Work life programmes is found to sufficient for internal consistency reliability (0.911).
6. The fifth factor identified is **working culture,** consisting of 3variables and the result of factor analysis showed that each statement has a significant loading on the factor. The descriptive analysis concluded that "I am satisfied with the encouragement & professional respect I receive at company (4.50) found to be higher than all variable in the factor culture. The level of internal consistency

reliability is extracted with the help of cronbach's alpha test and measured at (0.933).

7. The sixth factor identified is **Leadership**, leadership consists of 3 variables and the result of EFA states that the all three variable has a significant loading on the factor leadership. The descriptive test concluded that "My immediate supervisor at company is effective at managing our work group. "Is found to be higher than all variable in the factor leadership" (4.46). The factor extorted shows the sufficient level of internal consistency in the statements with the help of cronbach's alpha (0.905).
8. The seventh factor identified is **Benefits programmes,** consist of three statements and the result of EFA stated that the all three statements has a significant loading on the factor Benefits programmes. The results of descriptive test states that that "I am satisfied with the amount offered by company as bonus and for non-routine work. "Is found to be higher than all the statements in the factor Benefits programmes" (4.30). The internal level of consistency reliability is extracted with use of cronbach's alpha test (0.887).
9. Confirmatory factor analysis (hereafter CFA) is used to test the construct validity of the scale developed *(in order to measure knowledge workers retention practices)* in the process of applying EFA. The results also indicate that the composite reliability of the entire construct are found to be greater than 0.7 and average variance extracted greater than 0.5. Hence the convergent validity of the scale used in the study is ensured. In addition to this the average variance extracted is found to be greater than average shared variance as well as maximum shared variance, which ensures the presence of discriminant validity of the scale. The measurement model was developed with help of AMOS which indicates the goodness of fit indices of the measurement model. The fitness indices of the CFA model indicates that the CFA is statistically fit and the different constructs can be used in the SEM. The results of the model were as, CMIN/DF (3.321), GFI (.851), RMR (.096), CFI (.930) and RMSEA (.068) indicates the goodness of the fit of the model.

6.4 IMPACT OF DEMOGRAPHIC PROFILE ON KNOWLEDGE WORKERS RETENTION PRACTICES

After the analysis of literature of review and advice from experts it is found that these factors are important in the context of this study. The factors are extracted named as the group of companies, experience with the current organization and age of the respondent's affects the retention of knowledge workers in the organisation. For more clarification of these three factors, ANOVA test is applied to see the perception of knowledge workers in retention practices adopted by the organization.

Result of ANOVA revealed the perception of knowledge workers towards the *knowledge workers retention practices,* on the basis of group of company, experience and age of the respondent. Result of Analysis of variance indicates that the probability value of **f - statistic** for all the factors representing the *knowledge workers retention practices* adopted by the companies is found to be less than 5 percent level of significant.

These factors are explained as below:

6.4.1 On the Basis of Companies Group

1. The result of **Overall Relationship** observes that the mean score of employees with top companies is found to be higher as compared to the employees of medium and small companies. The result of **Compensation structure** observes that the mean score of employees with top companies is found to be higher as compared to the employees of medium and small companies.
2. The result of **Career Growth** observes that the mean score of employees with top companies is found to be higher as compared to the employees of medium and small companies. The result of **Work Life Programmes** observes that the mean score of employees with top companies is found to be higher as compared to the employees of medium and small companies.
3. The result of **Working Culture** observes that the mean score of employees with top companies is found to be higher as compared to the employees of medium and small companies. The result of **Leadership** observes that the mean score of employees with top companies is found to be higher as compared to the employees of medium and small companies. The result of **Benefit Programmes**

observes that the mean score of employees with top companies is found to be higher as compared to the employees of medium and small companies.

6.4.2 On the basis of the Experience with Current Organization

1. The result of **Overall Relationship** observes that the mean score of employees with more than 5 Years of experience in current company is found to be higher as compared to the employees working for less than 5 Years in current organization. The result of **Compensation structure** observes that the mean score of employees with more than 5 Years of experience in current company is found to be higher as compared to the employees working for less than 5 Years in current organization.
2. The result of **Career Growth** observes that the mean score of employees with more than 5 Years of experience in current company is found to be higher as compared to the employees working for less than 5 Years in current organization. The result of **Work Environment & Life Programmes** observes that the mean score of employees with more than 5 Years of experience in current company is found to be higher as compared to the employees working for less than 5 Years in current organization.
3. The result of **Working Culture** observes that the mean score of employees with more than 5 Years of experience in current company is found to be higher as compared to the employees working for less than 5 Years in current organization. The result of **Leadership observes** that the mean score of employees with more than 5 Years of experience in current company is found to be higher as compared to the employees working for less than 5 Years in current organization.
4. The result of **Leadership observes** that the mean score of employees with more than 5 Years of experience in current company is found to be higher as compared to the employees working for less than 5 Years in current organization. The result of **Benefit Programmes** observes that the mean score of employees with more than 5 Years of experience in current company is found to be higher as compared to the employees working for less than 5 Years in current organization.

6.4.3 On the basis of the Age of the Respondents

1. The result of **Overall Relationship** observes that the mean score of employee's age more than 45 years is found to be higher as compared to the employees having age of less than 45 years. The result of **Compensation structure** observes that the mean score of employee's age more than 45 years is found to be higher as compared to the employees having age of less than 45 years.
2. The result of **Career Growth** observes that the mean score of employee's age more than 45 years is found to be higher as compared to the employees having age of less than 45 years. The result of **Work Environment & Life Programmes** observes that the mean score of employee's age more than 45 years is found to be higher as compared to the employees having age of less than 45 years.
3. The result of **Working Culture** observes that the mean score of employee's age more than 45 years is found to be higher as compared to the employees having age of less than 45 years. The result of **Leadership** observes that the mean score of employee's age more than 45 years is found to be higher as compared to the employees having age of less than 45 years. The result of **Benefit Programmes** observes that the mean score of employee's age more than 45 years is found to be higher as compared to the employees having age of less than 45 years.

6.5 FINDINGS ON THE BASIS OF THE KNOWLEDGE WORKERS MANAGEMENT STRATEGIES IN INDIAN IT SECTOR

"*In order to investigate the Knowledge workers management strategies in Indian IT sector",* the exploratory factor analysis (EFA) is administered in the study in order to identify the latent factors extracted from the variables used in the questionnaire. The results indicates that the 18 statements considered for knowledge workers management strategies adopted by the management in the study can be reduced to 4 principle components having Eigen values more than 1. These 4 factors explain approx. 75 percent of the variance of the included statements. Assuming that the explained variance is sufficient, the extracted factors will be used for further analysis. With help of rotated component matrix (RCM), It is also observes from the results that the significant factor loadings for each factor is found to be greater than 0.7.

Factors extracted are named as: Employer's Awareness, Reward, Recognition and Growth, Work policies and Arrangements and Employer's concern and care. The statistical result of KMO measures of sampling adequacy and Bartlett test of Sphericity indicates that the KMO statistic is found to be 0.916 which indicates the presence of required sampling adequacy in the data set collected in the study.

1. The first factor extracted from EFA is named as **employer awareness,** consists of five major variables having significant loadings towards the factors. The results indicates that the statements of the factor "Employers responsiveness and willing to make changes needed to acquire new techniques and skills" is found that to highest in the factor employer's awareness (4.74). In the study the internal consistency of the factor is estimated with the help of Cronbach's alpha. The internal consistency, reliability (as measured by cronbach's alpha) of 0.902 which indicates the presence of sufficient internal consistency reliability in the factor.
2. The second factor extracted from EFA is named as **Rewards, Recognition & Growth.** The second factor consists of five major statements, the included statements in the factor are found to have significant loadings towards the factor. The results indicates that the statements of the factor "Maximizing the value and potential of knowledge workers." is found that to highest in the factor (4.58). In the study the internal consistency of the factor is estimated with the help of Cronbach's alpha. The internal consistency reliability (as measured by cronbach's alpha) of 0.897 which indicates the presence of sufficient internal consistency reliability in the factor.
3. The third factor extracted from the factor analysis is **Work Policies & Arrangements**. This factor consists of 4 statements. These statements have significantly loadings towards the factor. The results of descriptive study showed that indicates that the factor "New projects are used to address specific leader development needs of knowledge workers." is found that to highest in the factor Work Policies & Arrangements (4.48). In the study the internal consistency of the factor is estimated with the help of Cronbach's alpha. Work Policies & Arrangements factor statements are found with internal consistency reliability of (0.908) which state and indicates that internal consistency reliability is sufficient and acceptable in the factor.

4. The fourth factor extracted from the factor analysis is **Employers' Concern & Care**. This factor consists of 5 statements. These statements have significantly loadings towards the factor. The results of descriptive study showed that indicates that the factor "Company is much concerned about the career development and growth opportunities for knowledge workers in future" has the highest mean in the factor employer's concern and care *(4.60).* In the study the internal consistency for the factor was determined with the help of Cronbach's alpha test. The factor statements were found internal consistency reliability of **(0.904)** which state and indicates that internal consistency reliability is sufficient and acceptable in the factor.
5. Confirmatory factor analysis (hereafter CFA) is used to test the construct validity of the scale developed *(in order to measure knowledge workers management strategies)* in the process of applying EFA. The composite reliability of all the constructs should be greater than 0.7 and average variance extracted should also be greater than 0.5. The fitness indices of the CFA model indicates that the CFA is statistically fit and the different constructs can be used in the SEM. The results of the model were as, CMIN/DF (2.099), GFI (.942), RMR (.067), CFI (.978) and RMSEA (.047) indicates the goodness of the fit of the model.

6.6 FINDINGS ON THE BASIS OF THE IMPACT OF DEMOGRAPHIC PROFILE ON KNOWLEDGE WORKERS MANAGEMENT STRATEGIES

After the analysis of literature of review and advice from experts it is found that these factors are important in the context of this study. The factors are extracted named as the group of companies, experience with the current organization and age of the respondent's affects the knowledge workers management strategies in the organisation. For more clarification of these three factors, ANOVA test is applied to see the perception of knowledge workers in management strategies adopted by the organization. These factors are explained as below:

Result of ANOVA revealed the perception of knowledge workers towards the management strategies on the basis of group of company, experience and age of the respondent. Result of Analysis of variance indicates that the probability value of **f -**

statistic for all the factors representing the knowledge workers management strategies adopted by the companies is found to be less than 5 percent level of significant.

6.6.1 On the Basis of Companies Group

1. By the result of factor **Employer's awareness** it is observes that the mean score of employees with top companies is found to be higher as compared to the employees of medium and small companies.
2. The result of factor **Reward Recognition & Growth** observes that the mean score of employees with top companies is found to be higher as compared to the employees of medium and small companies.
3. The result of **Work Policies & Arrangements** observes that the mean score of employees with top companies is found to be higher as compared to the employees of medium and small companies. It means the employees in the medium and small companies perceive that there exists low level of knowledge workers management practices as compared to the employees of top companies.
4. The result of **Employer's Concern & Care** observes that the mean score of employees with top companies is found to be higher as compared to the employees of medium and small companies. It means the employees in the medium and small companies perceive that there exists low level of knowledge workers management practices as compared to the employees of top companies.

6.6.2 On the basis of the Experience with Current Organization

1. The result of **Employer's Awareness** observes that the mean score of employees with more than 5 Years of experience in current company is found to be higher as compared to the employees working for less than 5 Years in current organization. The result of **Reward Recognition & Growth** observes that the mean score of employees with more than 5 Years of experience in current company is found to be higher as compared to the employees working for less than 5 Years in current organization.
2. The result of **Work Policies & Arrangements** observes that the mean score of employees with more than 5 Years of experience in current company is found to be higher as compared to the employees working for less than 5 Years in current organization. The result of **Employer's Concern & Care** observes that the mean score of employees with more than 5 Years of experience in current

company is found to be higher as compared to the employees working for less than 5 Years in current organization.

6.6.3 On the basis of the Age of the Respondents

1. The result of **Employer's Awareness** observes that the mean score of employee's age more than 45 years is found to be higher as compared to the employees having age of less than 45 years. The result of **Reward Recognition & Growth** observes that the mean score of employee's age more than 45 years is found to be higher as compared to the employees having age of less than 45 years.
2. The result of **Work Policies & Arrangements** observes that the mean score of employee's age more than 45 years is found to be higher as compared to the employees having age of less than 45 years. The result of **Employer's Concern & Care** observes that the mean score of employee's age more than 45 years is found to be higher as compared to the employees having age of less than 45 years.

6.7 FINDINGS ON THE BASIS OF THE IMPACT OF KNOWLEDGE WORKERS MANAGEMENT STRATEGIES ON ENGAGEMENT AND RETENTION

To analyze the impact of knowledge workers management practices on knowledge workers retention and engagement the structural equation modelling is applied. The result of the SEM indicates that the probability value of all the relationship (hypothesis assumed) from Knowledge Worker's management strategies *(*KWMS) to KW engagement and retention is found to be less than 5 percent level of significance. Hence, with 95 percent confidence level, it can be concluded that the KWMS (Knowledge Worker's management strategies adopted by the IT companies in India have significant impact on knowledge workers' engagement and retention. The standardized beta of employee's engagement and employee retention is found to be 0.60 and 0.57 which indicates that the impact on KWMS is positive on both employees engagement and employee retention. From the standardized beta of the employee's engagement and employee retention, it can also be concluded that KWMS have more positive impact on employee's retention as compared to employee job engagement.

The R square of the KW engagement and retention in Structural Equation Modelling (SEM) model is found to be 0.34 and 0.32 percent which indicates that 34 percent and 32 percent of the variance in engagement and employee retention can be explained by KM worker performed by the IT companies.

The fitness indices of the CFA model indicates that the CFA is statistically fit and the different constructs can be used in the SEM. The results of the model were as, CMIN/DF (2.378), GFI (.930), AGFI (.911), CFI (.945) and RMSEA (.008) indicates the goodness of the fit of the model. The result of statistical fitness index indicates that the SEM model is statistically fit and can be generalized for further studies.

6.8 CONCLUSION

In the present competitive business condition of Indian Information Technology sector (IT), the knowledge and knowledge workers are become more essential. Elevated budgetary weights, exceptional rivalry and complex worldwide difficulties have expanded the interest for essential aptitudes, for example, development and the capacity to oversee change. The capacity to create knowledge and knowledge workers who can adequately confront tomorrow's worldwide business challenges is basic to an organization's prosperity. The study concludes the main factors of knowledge workers engagement practice such as; Work Assignments, Rewards & Recognition, Opportunities, Team Work, Immediate Supervisor, Communication level, Quality of Work Life and recreational activities, plays a vital role in success of the organization's in Indian IT sector. All the aspects has the relative importance of their presence in the organization, but study reveals that rewards and recognition and immediate supervisor's role plays a big role in engagement of knowledge workers and their productivity level achievements. Therefore the management should recognize the good performers on a regular basis in departmental meeting or in gatherings with sort of some prizes or gifts, which do not induce any financial burden on the organization, but yields outstanding results in engagement. The management should also take care of the behaviour of the immediate supervisors and make sure that a sense of equity and co-ordination always persist.

The study concludes the main factors of knowledge workers retention practice such as; Overall Relationship, Compensation structure, Career, Work life programmes, working Culture, leadership and Benefits programmes, plays a deciding role in success of the organization's in Indian IT sector. All the identified factors are vital for retention of

knowledge workers, but compensation structure, work culture and overall relationship with in the organization affects the retention majorly. Thus management is advised to implement an equal and fair compensation policy in the organization in by keeping an eye of the rivals company's structure in consideration too. It is advisable to the top officials of the organization to make the work life easy, with good team building, gain sharing, flexible work arrangement, management of workforce diversity and other non-monitory rewards in terms of facilities will do wonders for the top management and on the same time key talented workforce will retain on the job for long periods, which give a competitive advantage to the concerns on continuous basis.

As far as knowledge workers management strategies are concerned the current study reveals that employer's awareness, rewards, recognition and growth, Work policies and Arrangements and Employer's concern and care, plays a huge role in the knowledge workers retention and engagement in Indian IT industry. Absence of any of the factor mentioned above will hinder the performance of knowledge workers and the productivity of organization as well, the same is confirmed by the result of analysis. The top management should be aware about the role and contribution of them, motivates group cohesiveness, leadership development activities of knowledge workers, a mix and match of monetary and non-monetary rewards and focus on creative process with autonomy and flexibility on work arrangements. Knowledge workers plays a very divergent role in the organization by analyzing important information, solving complex problems, studying the trends of business, making strategic alliance with strategic partners, thinking divergently and creatively solve the problems. Therefore these vital employees should be given a free hand in their operation and top management should govern the strategies and issues with care.

6.9 SCOPE FOR FURTHER STUDY

The present research covers only selected areas in the four zones in India. Another study, zone wise is possible in regard to Knowledge workers engagement and retention research. This study was conducted particularly from the knowledge workers point of view. Therefore in the future studies, the opinion of management/employers should be considered for more valid results. In this research, 12 companies have been taken for data collection. More number of companies can be included in this regard. The Impact

of Knowledge workers management strategies on engagement and retention level, considered for collection of data are adequate but not exhaustive. The current study is limited to the Indian Information Technology sector and the extensive research is needed to extend the scope to other sectors than IT industry. Replication of this sort of study may yield more fruitful benefits for all IT industry professionals, if they practice knowledge workers management strategies, engagement and retention in spirit in their respective functions and organizations as a whole.

CHAPTER –VII
SUGGESTIONS

The current chapter presents the suggestions on the basis of analysis executed in the current study. On the basis of the findings it can be concluded that there are various variables in knowledge workers engagement, retention and management strategies which is a matter of concern for the top management. Explanation of these pivotal concern is required for the suggestion to be completed.

7.1 ON THE BASIS OF KNOWLEDGE WORKERS ENGAGEMENT PRACTICES

1. The study clears that in the factor work assignment, the variables with lower means are deficiency of materials, resources and required equipment's affects the productivity of knowledge workers adversely, which yields in low output. Inadequate workload distribution also badly affect the morale of the employees. The least mean scored by the variable is lack of material and equipment at work among all variables in the factor. The study suggests that these above mentioned variables must be positively addressed by the management of IT companies.
2. The study defines that in the factor rewards & recognition, the variables with lower means are Job responsibilities at Company allow me opportunity to do what I do best every day, less opportunities to learn and grow and challenging work. The lowest mean is scored by variable named flexible job responsibilities at work place among all variables in the factor. The study clearly suggests that these above mentioned variables must be handled in an efficient way by the management of IT companies.
3. The study states that in the factor opportunities, the variables with lower means are job promotion policies and practices are not very clear to the employees, not any such clear career path is defined as per the perception of employees. Appraisal parameters are not adequate and not feasible in current job scenario. The unawareness of promotion policies and opportunities at company sored least mean out of four variables in the factor. The study concludes that these above mentioned variables must be handled in an efficient way by the management of IT companies.

4. The study concludes that in the factor team work, the variables with lower means are team members generally adopt a lazy way in helping each other's when required in job performance. Key information and idea sharing is in a slow state, when new job assignments generated or executed. The lowest mean scored by the lack of helping nature between co-workers among all variables in the factor. The study suggests that these above mentioned variables must be administered well in an efficient way by the management of IT companies.
5. The study clarifies that in the factor immediate supervisor, the variables with lower means are poor handling of work related issues, immediate boss treats the workers not so fairly and approachability to team leader which dis- satisfy the employee in a negative way. The least mean scored by work related handling of team leader among all the variables in the factor. Therefore, it is advised to top management to do equal treatment in job assignment, workload sharing, and recognition should be induced in job policies and charters. Sometimes employee's doesn't feel free in approachability to top leaders/bosses in the situation of business and personal problems. So free working environment is advisable to top management for hassle free redress of grievances of business and personal issues of employee with in time.
6. The study clarifies that in the factor immediate supervisor, the variables with lower means are lack of trust with management and gap in communication affects the engagement of KW. The current study concludes that employees think that work practices are not communicated in a feasible way. At times the actual information is manipulated and delays on the same time, which creates a dilemma in the mind of employees. Lack of trust between employee's and management scored least among all variables in the factor. Therefore, it is advised to management of IT sector, to establish an optimized communication system in the organization that can build up trust, so that barriers from both side can be minimized.
7. The study concludes in the factor Quality of Work Life, the variables with lower means are workplace comfortableness is not in a good state as per the perception of employees. Work place hygiene conditions, means of transportation and other workplace amenities are lacking. Work comfortableness scored least in mean among all the variables in the factor. Therefore, management of IT organizations is suggested to improve the quality of work life.

8. The study shows in the factor recreational activities, the variables with lower means are picnics, tours, proper leaves, contest at organization are not taken place in the organization. The least mean scored among all the variables in the factor is lack of picnics, contest, leaves etc. Therefore advised to management of IT organizations to properly implement these non- monetary aspect of satisfaction with proper planning and control.
9. With the help of ANOVA, it is observed that the mean score of employees with top companies is found to be higher as compared to the employees of medium and small companies. Therefore, it is suggested to the management of IT organizations to better focus on the practices implemented by other top organizations in the IT sector of India. With the help of ANOVA, it is observed that the mean score of employees with more than 5 Years of experience in current company is found to be higher as compared to the employees working for less than 5 Years in current organization. Therefore, it become essential for the organizations if to engage KW to achieve highest level of productivity. With the help of ANOVA, it is observed that the mean score of employee's age more than 45 years is found to be higher as compared to the employees having age of less than 45 years. Therefore, management is suggested that in the recruitment process of candidate age factor should be considered.

   Therefore, top management in Indian IT sector should take care of flexible work assignment, proper recognition for good work, provide opportunities to learn ad develop, good behaviour of boss, no communication gap at all, ensure the quality of work life and provide non-monetary benefits help in achieving the engagement of KW.

7.2 ON THE BASIS OF KNOWLEDGE WORKERS RETENTION PRACTICES

1. The study shows in the factor overall relationship, the variables with lower means are feeling of proudness is missing somewhat in the mind of employees. They think to leave the organization if a good opportunity prevails to them, this shows a weak bonding between management and employees. The low level of job security also threaten the employee to stay for long in the organization. It shows the lack of overall relationship between bosses and employees. The least mean scored among all variables in the factor is planning for leaving the

company. Therefore, it is suggest to top management of IT sector to handle job security issue, employee's intentions to leave the company and try to create a sense of proudness in working in the company.

2. The study suggest in the factor Compensation structure, the variables with lower means are salary competitiveness in IT industry, satisfaction with current salary and fair pay with other sharing same level of responsibilities. The current study concludes that salary administration determines employee retention. The employees thought that one rank one salary policy is not followed transparently within the organization. The salary structure with in industry is also differentiated with home organization, which creates a sense of inequality between the employees. An absence of competitive salary structure demotivates employees and induce them to leave. Salary competitiveness scored least among all the variables in the factor. Therefore, management of IT industry is advised to address to the issue on priority, and should administers the competitive salary structure.
3. The study clarify in the factor Career growth, the variables with lower means are career and succession planning for vacant positions is also bit confusing. Career developmental training session, development programmes are not planned in a rigorous manner, lack of opportunities to learn and grow which yield in dissatisfaction which lead to poor retention level. The least mean scored among all variables in the factor is career and succession planning. Therefore top official of IT industry in India is advised to make plans of career development, training programmes and create opportunities to learn and grow continuously. Therefore, top management is suggested to address these matter on priority for better retention level.
4. The study suggests in the factor Work life programmes, the variables with lower means are work schedules are very tight for the employee, poor work life balance, which makes it difficult to adjust between personal and professional life. Excessive responsibilities and workload disturbs the working life adversely, which leads to dissatisfaction, this hinders the retention. The least mean scored among all the variables in the factor is workload. Therefore, a proper blend of authority and responsibilities with flexible and manageable workload policies for top management of IT organization is suggested.

5. The study shows in the factor working culture, the variables with lower means are least opportunities to express their opinions on the work life with in the organization and experience with co-workers is not also in a good condition, personal grudges affects the overall working and level of organizational and personal productivity in a negative way. The lowest mean scored among all the variables in the factor is opportunity to express the opinion on important matters. Therefore top management of IT sector is advised to make working life better by applying good motivation policies, team building, increase group cohesiveness and make better understanding of the diversity of workforce.
6. The study suggests in the factor leadership the variables with lower means are second level manager is not able to redress the conflicts between the employee and also take a lenient approach in managing the duty and responsibilities within the team and less effective in managing work group. The lowest mean is scored among all the variables in the factor is effective role of second level manger in he organization. Therefore, management is advised to make leaders equipped with authority, role clarity instructions in advance, make him liable for the overall satisfaction of employees. The mean score of effective role of second level managers should be taken care off.
7. The study suggests in the factor benefit programmes, the variables with lower means are health and welfare benefits programmes are not adequate as per need of the employees, retirement benefits are not adequate. Tie ups with good hospitals and clinics is not in a great, remote area are not covered up. Welfare schemes like of educational allowance, travelling expenses, residential facilities has to be planned and managed properly. Health benefit programmes scored the least mean in all the variables in the factor. Top management is suggested to invest in these less financial burden exercise to properly govern within the organization, which can leads to good retention of key talented workface.
8. The study also concludes that as per the perception of knowledge workers, the top level companies performs well in terms of better management strategies for knowledge workers, good engagement and retention practices. Therefore medium and small companies are advised to more focus on awareness of the top leaders, recognize the contribution of knowledge workers in goal accomplishment, carry out flexible and low burdened work assignments and care about the feelings and emotions of key talented employees. This will make

employees pleased, which results in productivity and management of talented task force.

9. With the help of ANOVA, it is observed that the mean score of employees with top companies is found to be higher as compared to the employees of medium and small companies. It can be said that the employees who's working for more than five years in the same organization are more satisfied as compare to less than five years of working experience. Therefore, management of small and medium companies should plan and implement better working and retention practices in the organization. With the help of ANOVA, it is observed that the mean score of employees with more than 5 Years of experience in current company is found to be higher as compared to the employees working for less than 5 Years in current organization. Therefore, it is suggested that long period in the organization improves the productivity. Proper measures should be taken to retain KW in the organization for long time. With the help of ANOVA, it is observed that the mean score of employee's age more than 45 years is found to be higher as compared to the employees having age of less than 45 years. Therefore, it is suggested that age factor should be considered as a source of appraisal, promotions, job assignments etc.

   Therefore, management is advised to review the recruitment, training and development policies on regular basis, adopts new techniques in working culture, manage the culture of workforce, implement fair pay system, good performance appraisal schemes, reduced the gap in communication, fringe and non- fringe benefits, clear- cut path for career development is to be decided in advance, each of these practice will help out the management in achieving retention of KW.

7.3 ON THE BASIS OF THE KNOWLEDGE WORKERS MANAGEMENT STRATEGIES

1. The study suggests in the factor employer's awareness, the variables with lower means are awareness of the top management about the contribution of knowledge workers, lack of leadership development activities by the top management, lack of developmental feedback to support and encourage the knowledge workers also hinder the performance of knowledge workers and motivation regarding group cohesiveness. The least mean among all the

variables in the factor is scored by the employer's awareness about the contribution of KW. Therefore, the top management of IT sector should rectify above mentioned issues.

2. The study reveals in the factor Rewards, Recognition and Growth, the variables with lower means are individual achievements of knowledge workers are not very much recognized and rewarded by the top management, measurement of contribution on subjective ground, lack of motivation in skill up gradation, lack of encouragement and support. The least mean is scored mong all the variables in the factor is less recognition on individual achievement. Therefore, top management of It sector is advised to handle the above mentioned issues with proper planning and execution.
3. The study reveals in the factor Work Policies & Arrangements, the variables with lower means are Lack in providing flexible work arrangements for knowledge workers in order to perform their assigned tasks on time with efficiency, less focus on knowledge management and collaborative projects and adequate pool of KW. The variable which scored least is flexible work arrangement among all the variables in the factor. Therefore, it is advised to top management to implement flexible work timings and schedules Focused should be on creative process for knowledge workers to improve knowledge management and collaborative project, as the same is not implemented in the IT sector optimally.
4. The study reveals in the factor employer's concern and care, the variables with lower means view the KW as corporate asset, mentoring of relationship and loyalty among knowledge workers. The least mean scored by the variable view of top management on KW as a corporate asset among all the variables in the factor. Therefore, top management of IT organizations is suggested to treat KW as an asset rather than liability.
5. With the help of ANOVA, it is observed that the mean score of employees with top companies is found to be higher as compared to the employees of medium and small companies. Therefore, management of small and medium companies should plan and implement better working strategies which can improve engagement and retention. With the help of ANOVA, it is observed that the mean score of employees with more than 5 Years of experience in current company is found to be higher as compared to the employees working for less

than 5 Years in current organization. Therefore, it is suggested that long period in the organization improves the productivity, so roper measures should be taken to engage and retain KW in the organization for long time. With the help of ANOVA, it is observed that the mean score of employee's age more than 45 years is found to be higher as compared to the employees having age of less than 45 years. Therefore, it is suggested that age factor should be considered as a source of recruitment, training & development, career planning, complex assignments etc.

Therefore, it is suggested to top management of IT organizations that top management should be aware about the contribution of KW in achieving organizations goal, provide better rewards for good activity performed, work schedule should be interesting, creative and as per the capability of the employee and management should view the KW as an asset and show concern about career and other developmental activities.

7.4 SUGGESTIONS ON THE BASIS OF THE IMPACT OF KNOWLEDGE WORKERS MANAGEMENT STRATEGIES ON ENGAGEMENT AND RETENTION

1. The study analyses that knowledge workers management strategies have a significant impact on engagement and retention in IT sector. Therefore management is advised to plan, leads, direct and control good management strategies for knowledge workers through the year. Feedbacks and suggestions of employees should be analyzed rigorously. Motivational bonding from top officials required for key talented employees, this can do wonders for them, without much burden of financial position of the organization. Awareness and recognition of contribution from supervisors are the main elements, which employees looks generally.
2. Knowledge workers management strategies, engagement and retention of employees go hand in hand. Fair and equitable compensation structure, growth and opportunity option available with clear cut path, non- monetary financial rewards, good communication level, awareness from management, value for contribution team work, behaviour of top management, organizational culture, flexible work schedules, concern for development, autonomy etc. are some the

key elements which decides the engagement and retention of knowledge workers in Indian Information Technology sector.

7.5 CONCERNS OF THE RESEARCHER

After extensive analysis on knowledge workers engagement, retention and KW management strategies in IT sector of India, various suggestion are suggested. The current study clearly shows the impact of KW management strategies affects the engagement and retention positively in the study. However, researcher think that apart from suggestions extracted from various practices and strategies there are some other concerns which also affects the level of KW engagement and retention in Indian IT sector. The thought process of the researcher has extracts some pivotal points which may be beneficial for the top management in IT sector of India. These are as under:

1. IT sector is recommended focusing more on potential knowledge workers, by giving all the more preparing and advancement programs. Typically workers who are new to their activity and who has under 5 years of working background can be given more at work preparing programs, making them to go to courses in their activity related zones where the representatives get profited and exceed expectations their ability. Enterprise Resource Planning (ERP) framework is suggested to IT sector. In ERP framework, association can focus more on Human Resource modules which is completely automated and free from blunders where numerous elements can be assessed in the process.

2. The top management and officials should see the value of ability of employees, however most organizations are yet attempting to systematize and coordinate their ability in administration forms. There is a requirement for more straight-forward, responsibility for creating ability among leaders and board of directors, yet this responsibility needs to work both ways. Experience reveals that solid performers will dependably have options about where to work. To hold their most important ability and assemble an establishment for tomorrow, this is the ideal opportunity to guarantee that their ability rehearses is dynamic and powerful.

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a. Business Outlook

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c. Economic Review

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e. Forbes India

f. Hindustan Times

Appendices – I

(Questionnaire for Knowledge workers)

Topic of the study: A study on Knowledge workers Management Strategies in Indian IT sector: A key to engagement and retention

Please tick in the appropriate column

Gender: **Male/Female** ☐

Age: Below - 30 Years ☐

30 – 40 Years ☐

40 – 45 Years ☐

Above – 45 Years ☐

Length of Time Employed with current Company:

Less than 3 Years ☐

3- 5 Years ☐

More than 5 Years ☐

Family Status: **Single** ☐

Married ☐

Qualification: Graduate ☐

Post Graduate ☐

Others if any ☐

Designation: ☐

Organization ☐

Group of Company Top ☐ Medium ☐ Small ☐

Likert Scale - Abbreviations						
ED	**SD**	**D**	**N**	**A**	**SA**	**EA**
Extremely Disagree	**Strongly Disagree**	**Disagree**	**Neutral**	**Agree**	**Strongly Agree**	**Extremely Agree**
1	**2**	**3**	**4**	**5**	**6**	**7**

Section: A

Perception of the Knowledge Workers about Engagement Practices with in the organization

S No.	Statements	ED	SD	D	N	A	SA	EA
1	Workload is distributed equally throughout our department or unit							
2	I know what is expected of me in my job							
3	I feel competent and fully able to handle my job							
4	I have the materials and equipment I need to do my job efficiently							
5	I am comfortable in my place of work							
6	I have a best friend at work.							
7	I am proud to say that I work at this company							
8	I have a clearly established career path at Company.							
9	My Company recognizes or praises me whenever I do a good job..							
10	If I do good work I can count on making more incentives							
11	I am aware of the promotion opportunities in my company							
12	In general, promotions are handled fairly at my company							
13	In the last year, I have had opportunities to learn and Grow							
14	The recreational activities(Theme days, picnics, contests, etc) make me look forward to work							

15	Recreational facilities provided by Company are as good/better than the other companies							
16	Recreational activities play a major role in my choosing to stay at Company							
17	Company cares for my security and health.							
18	Recreational facilities leads to employee engagement and retention							
19	Company provides me good transportation facilities.							
20	I am happy with the benefits package offered at Company							
21	Recognition programmes done according to policies with transparency							
22	There is good communication between me and my superior.							
23	I feel free to offer comments and suggestions & feedback.							
24	All the communication done in a scheduled way and order.							
25	Communication gap level							
26	My Team Leader treats me fairly							
27	I can freely approach my Team Leader with problems							
28	My Team leader handles my work-related issues satisfactorily							
29	My co-workers and I share information and new ideas.							
30	I can trust what management tells me about work practice							
31	I enjoy working with my co-Workers.							
32	The people I work with help each other when needed.							
33	My co-workers do their best.							

Section: B

Perception Knowledge Workers about Retention Practices in the Organization

S No.	Statements	ED	SD	D	N	A	SA	EA
1	I am proud to say I work for my organization							
2	I am planning to continue my career with my company for at least 5 more years.							
3	Company provides me with job security.							
4	I would recommend my company as an employer to my friends.							
5	I am satisfied with senior leadership's vision for this site.							
6	My immediate supervisor at company is effective at managing our work group.							
7	I feel my supervisor cares about me as a person and as a professional.							
8	My second level manager is effective in his or her role.							
9	I am currently considering leaving the Company.							
10	I am satisfied with the pay I receive at company							
11	My salary is competitive with others who have similar responsibilities within the company.							
12	My salary is competitive with similar jobs at other companies.							
13	I receives perks and incentives for assignment completion							
14	I am satisfied with the amount of paid time off offered by company.							
15	I am satisfied with the health and welfare benefits programs offered by company							
16	I am satisfied with the retirement benefits programs offered by company.							
17	Company provides me the materials and equipment to do my job right							

18	Healthy and hygienic working conditions.							
19	My workload is such that I can do my best every day.							
20	Work schedules provides me a balance to meet work & personal needs							
21	I am satisfied with the overall work life balance at company							
22	My physical space at company allows me to work efficiently.							
23	I am satisfied with the encouragement & professional respect I receive at company.							
24	I have the opportunity to give my opinion on matters that are important to me.							
25	My job responsibilities at Company allow me opportunity to do what I do best every day							
26	My work is challenging and inspire me to do well							
27	At company I have opportunities to learn and grow							
28	Training and Development programmes are effective and schedule on time							
29	My workgroup experience at company is positive.							

Section: C
Perception of Knowledge Workers about the Management Strategies

S No.	Statements	ED	SD	D	N	A	SA	EA
1	Employer is responsive and willing to make changes needed to acquire new techniques and skills.							
2	CEO and BOD are actively involved with leadership development activities of knowledge workers.							
3	Company is aware about the contribution of knowledge workers in achieving organizational goals.							
4	Focused on creative process for knowledge workers to improve knowledge management and collaborative project.							
5	Knowledge workers are motivated and encouraged by the management to upgrade their current skill set and knowledge.							

6	Provides flexible work arrangements for knowledge workers in order to perform their assigned tasks.							
7	Care for well-being of knowledge workers by making their lives easier and less stress.							
8	Mentoring relationships going on to build motivation and loyalty among knowledge workers							
9	Viewed the knowledge workers as corporate assets.							
10	New projects are used to address specific leader development needs of knowledge workers.							
11	Company is much concern about the career development and growth opportunities for knowledge workers in future.							
12	Organization has right pool of knowledge workers for its present and future strategies.							
13	Encourage and support knowledge workers to look at lateral roles as a growth option.							
14	Subjectively measures the knowledge workers on the basis of total contribution/team efforts and accountable for complex job assignments.							
15	Company consistently provides ongoing developmental feedback to support and encourage knowledge workers.							
16	Individual achievements of knowledge workers are recognized and rewarded by management.							
17	Employer motivates group cohesiveness							
18	Maximizing the value and potential of knowledge workers.							

Any Suggestions if any:

Date:

Place:

BRIEF PROFILE OF THE RESEARCH SCHOLAR

Mr Munish is currently working as an Assistant professor with the department of Management Studies, Aravali College of Engineering and Management, Faridabad, Haryana. His qualifications is M.B.A, M.Com, UGC- NRF (HRM, Labour welfare and personnel management), UGC- NET (Commerce). He is having 11 year of experience out of which 9 years teaching experience at college level and 2 years of industry. His area of interest are human resource management, training and development, organizational behaviour, labour laws, business law, company law etc. The researcher had published 7 research papers in national and international journals. The researcher also presented various papers in national/international conferences.

LIST OF PUBLICATIONS OUT OF THESIS

LIST OF PAPERS IN JOURNALS

Sr. No	Title of the paper	Name of the Journal	ISSN No.	Volume and Issue	Year	Page
1	A study on Impact of Job Satisfaction on Faculty members on student satisfaction in Business schools in Delhi NCR region	International Journal of Organizational behavior and management perspectives	ISSN: 2279-0950.	Volume 2, Number: 2	2013	331-388
2	Retention management in Indian IT Sector: A Key to Retention"	YMCAUST International Journal of Research.	ISSN: 2319-9377	Volume 3, Issue: 2.	2015	27-31
3	Practices of Employee Retention in Indian IT sector: A Special reference to Delhi/NCR region	International Journal of Development Studies (IJDS)	ISSN 0975-5799	Volume 8 Issue- No-2	2016	1-15
4	Factors affecting satisfaction and turnover of information technology workers in India	International Journal of BRIC Business Research (IJBBR)	ISSN 2201-4179	Volume 5, Number 3/4,	2016	1-16
5	Employee Engagement & Retention: A review of literature	International Journal of BRIC Business Research (IJBBR)	ISSN 2201-4179	Volume 6, Number 1	2017	1-19
6	An Analytical Study on Employee's Engagement and its Relationship with Job Outcomes: a case of Tata Consultancy Services (TCS)	Asian Journal of Management	ISSN 0976-495X	Volume 8(3)	2017	1-8
7	Intrinsic motivation and Knowledge workers within teams: A support	International Journal of Emerging Technologies and Innovative Research	ISSN: 2349-5162	Volume 4(9)	2017	120-129

LIST OF PAPERS IN CONFERENCES

S.l. No.	Authors	National or International	Name of Conference	Institute
8	"Social Computing: A critical study to analyze current scenario in of social networking sites in India"	National	Science in Media	YMCAUST, Faridabad.
9	A study on retention of Knowledge Workers: In reference to Indian Information technology sector"	National	Contemporary Issues and challenges in commerce, Management and technologies	DAV College, Faridabad.
10	"Corporate Governance Practices in India: A Sectorial Analysis"	International	Management challenges in the new era: Strategies for success	Jamia Milia Islamia University
11	Employee Retention Determining Factors: A Case study at MDH ltd."	International	An Alternate Globalization from the South: Dynamics of International Business and Finance in Emerging Economies	Jamia Milia Islamia University
12	"Retention of Knowledge Workers in IT Industry in India: A review"	"National	Impact of FDI on Agro- Food sector"	Aggarwal P.G. College, Ballabgarh.
13	"A comparative study of Indian Information technology sector: A special	International	Paradigm shift in management and technology	YMCAUST, Faridabad.

	reference to employee retention Employee Retention"			
14	Interrelationship among employee retention strategies adopted by corporate sector: An empirical study"	International	Advances in Management & Decision Science	Gautam Buddha University, Noida.