CHAPTER VI

SUMMARY OF FINDINGS, SUGGESTIONS AND CONCLUSION

6.1 INTRODUCTION

This chapter recapitulates the summary of the findings and offers suggestions for designing the knowledge management policies in accordance with the perceptions of the employees, which are revealed through this study. The present study probed the employees’ perceptions on the various dimensions of the knowledge management activities initiated by the organizations. The analysis of the data revealed several interesting findings which are listed below.

6.2 FINDINGS

FINDINGS RELATING TO OBJECTIVE 1

- It is found that male employees (52%) constitute a major part of the total sample unit than female employees (48%). It is witnessed that the employees of the age group 25-35 years (54.4%) dominate the sample unit and least representation is exhibited by the employees of the age group ‘more than 45 years’ (2%). It can be justified as a natural feature as the IT industry is an offspring industry and is dominated by youth population.

- The distribution of respondents is found to be a little higher among married employees (56.2%) than unmarried employees (43.8%). It is also found that the sample unit comprises 71.8% of employees with technical qualification while 27.8% employees have graduated
in non technical field, which again proves to be a justified distribution as IT industry predominantly consists of employees with technical qualification.

- Majority of the sample respondents work as team members (63.4%) and 27.6% of the sample unit is found to be emerging from the team leader category. Only 8.8% of the employees are from the managerial cadre. Almost equal percentage of respondents fall under the category ‘less than 5 years experience’ (41.8%) and with 5-10 years experience (42.2%). 44.6% of the sample unit earns a monthly income between Rs.20,001 - Rs.40,000 and 27% of the respondents get a monthly income ranging from Rs.40,001 – Rs.60,000.

**FINDINGS OF AWARENESS ON KNOWLEDGE MANAGEMENT TECHNIQUES**

- The analysis revealed that Intranet (95.8%) is the most popular medium for capturing and sharing knowledge among the employees. Email (95.6%) and Internet (95.6%) occupy the second position and are found to be very popular among the employees of IT industry.

- A moderately high awareness (89.2%) is exhibited by the employees on specialized training as an effective knowledge capture and transfer tool. It is further observed that Video conferencing (85.6%), Coaching (84.8%), Mentoring (83.2%), and Networking (82%) are also very common mediums of knowledge sharing among the employees of IT industry. Explicit capture (53.4%) and Communities of practice (30%) are found to be the techniques that attract the least awareness from the employees of IT sector. It is due to the fact that these techniques are usually practiced at the higher management level.
FINDINGS RELATING TO OBJECTIVE 2

- Survival strategy, Prerequisites, Career development, Financial facilitators, and Resource utilization are the five dominant factors that are extracted through the process of factor analysis.

- Three dominant groups from the employees have emerged based on their perception on the factors influencing knowledge management practices. The cluster that show a strong agreement (28.6%) towards these factors are categorized as ‘Effective employees’ and employees with moderate agreement (45.4%) are termed as ‘Unambitious employees’. Employees exhibiting strong disagreement (26%) towards these factors are baptized as ‘Cynical employees’.

- It is observed that the awareness on knowledge portal as a medium of knowledge sharing and the clusters of factors influencing knowledge management practices show an insignificant relationship. This insignificant association indicates that the perception of employees do not influence the awareness on knowledge portals as usage of this technique is intimately connected with their official responsibilities.

- It is found that the awareness on Email (96.5%), Internet (96.9%), Intranet (97.7%), Vicing (66.2%), Expert panel (64.6%), Cross training (79.7%), Blogs (74.8%), Partnership with universities (56.4%), Coaching (89.2%), and Mentoring (84.6%) are not associated with the clusters of factors influencing KMP. The reason that can be attributed for this disassociation is all the above stated techniques are either used by employees commonly out of personal interest or by the orders of management for capturing and transferring the knowledge effectively.
• Awareness on Video conferencing (95.4%) and Elicitation interviews (67.1%) is found to share a high association with the Effective employees, Unambitious employees and Cynical employees.

• A highly significant association is exhibited between the above stated three clusters and their awareness on specialized training and Explicit capture. It is assessed that these two techniques of knowledge sharing are exposed to a restricted set of employees, especially among the employees those who take up the new ideas of the management and put them into practice immediately.

• Awareness on Expert panel and Cross training is highly disassociated with the three clusters. It is due to the practice of exposing the employees to Expert panel and arranging Cross training for them to have versatile knowledge is a common feature in the IT sector.

**FINDINGS RELATING TO OBJECTIVE 3**

• It is found that four predominant factors namely Knowledge extraction, Planning and communication, Senior participation, Documentation and ICT are extracted out of sixteen variables relating to implementation strategies.

• Three distinct groups namely ‘Inspirational employees’ (35.2%) having strong agreement towards the strategies, ‘Innovation seekers’ (22.8%) with moderate agreement and ‘Impeding workforce’ (42%) exhibiting strong disagreement are identified based on their perception towards the strategies adopted by the organization for knowledge management.

• The awareness on Intranet, Video conferencing, Expert panels, Matrix management, Blogs, Partnership with universities, Specialized training, Elicitation interviews, and Explicit capture are found to have a
disassociation with the three clusters of implementation strategies namely Inspirational employees, Innovation seekers, and Impeding workforce. The proper planning and dissemination of the knowledge management strategies among the employees have enlightened them about the various techniques and as a result of this, the disassociation is exhibited.

- Cross training, Mentoring, and Networking are found to have varied awareness level among the three clusters of implementation strategies and possess a significant association with these clusters.

- Cross training is taken seriously by Inspirational employees (81.8%) through which new techniques and updated knowledge can be obtained whereas Impeding workforce (80%) is enthusiastic enough to learn new knowledge. Interestingly least awareness is shown by the Innovation seekers (70.2%).

- It is noted that awareness on Coaching and concept mapping share a significant association with the three clusters. Reception of Coaching by experts and applying concept mapping are practiced regularly by Inspirational employees whereas the other two clusters adopt it on a lighter note as these are not required for routine jobs.

**FINDINGS RELATING TO OBJECTIVE 4**

- The four major factors identified are System barriers, Organizational barriers, Attitudinal barriers, and Semantic barriers.

- The employees are grouped into three clusters namely Fortitude employees (40.2%), Buffer blockers (45.8%) and Critical thinkers (14%) showing strong agreement, moderate agreement and strong disagreement respectively towards the presence of such barriers.
- Awareness on Internet (97.8%), Intranet (98.3%), Vicing (70.1%) are found to have an association with the three clusters. It is found that the curiosity of the Fortitude employees to reap maximum benefits by overcoming the barriers and the lack of seriousness among the Critical thinkers can be the reasons for this association.

- Concept mapping (69.2%), Cross training (86.6%), Coaching (93.0%), Expert panel (71.1%) and Explicit capture (61.2%) share a high association with the three clusters, Fortitude employees, Buffer blockers and Critical thinkers. These techniques of knowledge capture are intricate in nature and the exposure to these techniques is offered to the employees who are willing to take up challenges. This can be the reason for the disparity in the opinion of the employees.

- It is found that the awareness on Video conferencing and Networking are found to have an insignificant association with the clusters of barriers to KMP. These two tools are not entirely organization oriented but are offered to the employees through the external environment too. Thus there is a disassociation between the clusters and their awareness.

- It is further found that the knowledge management tools, backed by technology are well known to all the sets of employees irrespective of their perception. But the tools that are adopted within the organization alone have different awareness levels among the different clusters.

**FINDINGS RELATING TO OBJECTIVE 5**

- Four major factors out of sixteen variables are derived with respect to the benefits of knowledge management practices. The factors extracted are Organizational benefits, Career anchors, Motivation boosters and Skill development.
• Three major clusters are identified based on the perception towards benefits. The three clusters are Careerist group (41.2%), Persistent players (20.6%), and Insatiable employees (38.2%) exhibiting strong agreement, moderate agreement and strong disagreement respectively.

• The analysis for association between the clusters and their awareness revealed several interesting results. The awareness level on knowledge capture and sharing tools such as, Intranet, Vicing, and Blogs which are technologically linked are not associated with the three heterogeneous groups namely Careerist group, Persistent players and Insatiable employees and it shares an independent influence. Their perceptions about the benefits do not affect their awareness on Intranet, Vicing and Blogs.

• Similarly the non technological tools Cross training, concept mapping and Explicit capture also share an insignificant association with the clusters of benefits. The initiative by the organizations to practice all these techniques among all levels of employees is considered to be the reason for the disassociation between the clusters and their awareness.

• Interestingly, Video conferencing and specialized training have a significant association with these clusters. These tools are adopted by a small sect of employees who have a desire to elevate their career graph.

**FINDINGS RELATING TO OBJECTIVE 6**

• It is found that Prerequisites, Career development, Resource utilization Senior participation, Organizational barriers, Organizational benefits, Motivation boosters and Skill development are significantly influenced by gender. Stronger agreement is found among the male employees than female employees, regarding the factors prerequisites, career development and resource utilization.
- It is found that the male employees acknowledge the participation of seniors as one of the implementation strategies and also highly acknowledge the benefits of knowledge management practices than female employees. It is found that the presence of barriers is highly felt by female employees than male employees.

- It is observed that the demographic variable age exhibits influence on the perception of the employees. Employees under the age group 26 years – 35 years perceive the importance of the presence of prerequisites higher than other employees. High agreement regarding the system barriers, attitudinal barriers and semantic barriers is found among the employees of age group “more than 45 years”. It is found that with the increase in age, the attitudinal hurdles towards sharing knowledge with others and difficulty in communication increases for the employees.

- It is found that marital status of the employees influence their perception on various factors significantly. Marital status of the employees strongly influences several factors relating to knowledge management practices. It is found that unmarried employees realize more the importance of factors of knowledge management practices and senior participation.

- It is found that the presence of all types of barriers is highly felt by married employees than unmarried employees. The feeling of commitment and the pressure to survive in the organization make the married employees work towards knowledge management practices. This intense effort throws light on the barriers that are present in the organization.
• It is found that education exercises a very little influence on the perception of employees towards the various dimensions of knowledge management practices.

• Employees with technical qualification stress the necessity of prerequisites and usage of documentation of ICT. The practical knowledge obtained through technical education enlightens the employees about the prerequisites to be made available for effective knowledge capture and transfer.

• Simultaneously, the importance of documentation and ICT is felt highly by the employees with technical education, as they would have practically experienced this during education.

• The need for availability of adequate prerequisites is considered important by the team leaders for the success of knowledge management practices, while financial dimension are considered to be important by managers.

• The strategies adopted for extracting the critical knowledge of the employees and using documentation processes and ICT in this regard assumes more importance among the managers while the participation and support of the seniors of the institution is assumed to be the best strategy by the team leaders.

• Among the barriers, it is found that attitudinal barriers and semantic barriers play a major role in effective knowledge management practices. This finding is perceived by the managerial level employees who act as the communicator of all knowledge management practices policies of the management to the employees of the organization.
• It is observed that the team leaders perceive the benefits of knowledge management practices in the form of development of skills and using this status to anchor their career development.

• The employees' perception towards knowledge management practices is found to be significantly influenced by the experience. It is further noted that the factors of barriers and benefits are highly influenced by the experience of the employees.

• The employees with more than 15 years of experience acknowledge the presence of the barriers and benefits as their experience act as a key to assess the presence of barriers through which the benefits of knowledge management practices are reduced.

• The perception of employees towards the various factors of knowledge management practices is moderately influenced by the income level of the employees.

• Employees earning more than Rs.60,000 per month attach greater importance to all the significant factors of knowledge management practices. This phenomenon is experienced due to the fact that people with more experience or more performance are placed under this category. Hence people earning more income will normally be interested in the career development perspectives and the financial support provided by the firm.

• Similarly, it is found that employees with more than Rs.60,000 attach more importance to knowledge extraction, and proper planning and appropriate communication as preferred strategies of implementing knowledge management practices. It is also found that least recognition is exhibited by employees with a monthly income of Rs.20,000 - Rs.40,000.
The awareness regarding extracting valuable knowledge and proper planning to execute the same is lesser among the employees with lower income, as its relevance and importance are much recognized by the top level people than operating management.

It is also found that the positive outcomes of knowledge management practices are highly influenced by the independent variable, Income, as employees earning more than Rs.60,000 show stronger positive perception towards these factors.

**FINDINGS RELATING TO OBJECTIVE 7**

- Correlation analysis between the factors influencing knowledge management practices and implementation strategies revealed that the factors Resource utilization and Prerequisites are highly correlated with Senior participation which indicates that availability of ample prerequisites and effective allocation and utilization of resources influence the seniors to actively take part in the knowledge management processes.

- It is found that offering and assuring the opportunities for developing the career graph will motivate the seniors to contribute maximum towards the knowledge management activities of the company.

- The correlation analysis between the factors influencing knowledge management practices and the barriers to knowledge management practices reveals that survival strategies adopted by the organization show a relationship with the semantic barriers. This indicates that adopting knowledge management practices as a survival strategy create semantic barriers as the employees are not educated on the concept knowledge management practices.
• The necessity to offer prerequisites and career development opportunities for the employees to convince them towards knowledge management practices results in creating system barriers.

• Allocation of sufficient funds is one of the prerequisites. With the increased efforts of the organization to create a knowledge management environment, the need for abundant financial support also increases and turns out to be a major barrier.

• It is found that the factor prerequisites is highly correlated with all factors of benefits namely organizational benefits, career anchors, motivation boosters and skill development.

• It is revealed that the availability of all the prerequisites for knowledge management creates a healthy environment which motivates the employees to adopt knowledge management practices, helps to develop their skills, thereby providing them the opportunities for their career development. This creates a knowledgeable bunch of employees which benefits the organization as a whole.

• It is found that increased efforts to extract maximum knowledge from the employees result in creating semantic barriers and also attitudinal barriers. The barriers of effective knowledge management activities grow with the increase in the magnitude of implementation strategies.

• Usage of documentation and information and communications technology to implement knowledge management practices is coincided by organizational barriers in the form of lack of organizational support and commitment and also non allocation of ample funds.
• It is found that the strategies adopted by the organization bring out various benefits such as organizational benefits, career anchors, motivation boosters and skill development.

• The correlation analysis revealed that allowing seniors to actively take part in the knowledge management practices activities act as motivation boosters for the employees and also helps in developing the skills of the employees by observing and capturing the expert knowledge of the seniors. Participation of seniors also offers enhanced benefits to the organization and propels the employees to use knowledge management practices as their career anchors.

• The barriers to effective implementation of knowledge management practices have a positive impact on the benefits of knowledge management practices indicating that the employees perceive the benefits of knowledge management practices in spite of the presence of various barriers.

• The attitudinal barriers of the employees towards effective knowledge management practices, act as motivation boosters and enhance the skills of the employees. Further, it is found that the presence of semantic barriers and system barriers, makes the employees and organization to work against it, and thus brings out positive outcomes.

• Adoption of knowledge management as survival strategies of organization, opportunities for the career development of employees and proper channelization of available organizational resources are able to predict the extraction of knowledge from employees intended to share the knowledge.
- It is indicated that the survival strategies adopted by the organization, employees’ intention to elevate their career, financial support and motivation offered by the organization create a conducive climate in IT companies for smooth implementation of knowledge management strategies through proper planning level as well as the execution level.

- The adoption of knowledge management strategies by the organization for survival, the availability of ample prerequisites such as clear work procedures, codification methods, the optimal utilization of the organizational resources offer a sophisticated work atmosphere and create interest and initiate the seniors to contribute towards the knowledge management programs of the organization.

- It is observed that the organization’s initiative to adopt survival strategies, arming the employees with adequate KM infrastructure, provision of appropriate financial rewards and allocation of sufficient funds to take up knowledge management activities offers opportunities for the employees of IT companies to adopt the knowledge management process with the enhanced support of documentation and Information & Communication Technology.

- It is noted that intensive efforts of the organization to extract maximum knowledge from the employees with the sincere participation of senior employees intensifies the pressure on the employees and results in lack of understanding the concept and enhance the system barriers.

- The introduction of documentation process and optimal utilization of the technological advancements to capture and transfer the knowledge resources poses a threat to the organization in the form of reluctance to accept a new working procedure. With increased use of technology, the management feels that it may lose control over the employees. Hence with the documentation process enabled by IT, the chances for barriers from organization too grows up.
• It could be noted that the organization’s intention to extract knowledge from the employees, planning for this extraction methods and communicating it to the employees often results in either misunderstanding the concept or lack of clarity in the communication process thereby leading to the emergence of semantic barriers.

• Lacunae in the KM infrastructure, the lag in paying attention towards KMP by the organization, employees’ negative attitude and misconceptions on KMP, and the inability of the organization to effectively disseminate the concept of knowledge management interestingly has a positive impact on the employees’ mind and drive them towards exploring the untapped arenas of knowledge utilization.

• Non availability of ample system support, lack of interest by the management to implement knowledge management practices, the attitude of the employees towards knowledge management practices do not hamper the intention of the employees to upgrade their career. Thus it can be concluded that the barriers do not influence the benefits that are available to the employees to stabilize their career.

• The existence of various barriers hinders the growth of IT employees and restricts them to perform better. Thus it can be concluded that the barriers do contribute to the motivation boosters to some extent.

• The barriers for effective knowledge management practices, that arise from different dimensions namely the lack of systematic provision of needed infrastructure, lack of efforts by management, the lack of optimistic attitude among the employees and the ineffective communication process do not bear upon a significant influence on the skill development perspectives of employees, as one of the benefits of knowledge management practices.
6.3 SUGGESTIONS

✓ Non technological tools for knowledge capture and sharing such as, Communities of practice, Partnership with universities, Elicitation interviews, Explicit capture need to be introduced at all levels of management so as to capture and retain the expertise knowledge as these techniques are more capable of sharing the best knowledge across the organization.

✓ Equal weightage need to be given for both technological tools and non technological tools as well to seize the expert knowledge from all the corners of the company.

✓ It is suggested that exposure to knowledge management practices need to be carried out in full swing as many of the employees’ opinion differ widely on the enablers of knowledge management.

✓ The concept and importance of knowledge management need to be disseminated to the employees and they need to be convinced with this regard because employees are the actual force that converts the organization’s plans into reality.

✓ Apart from adopting training curriculum as one of the strategies for implementation of knowledge management, formation of virtual teams is much required. This would enable the free flow of knowledge within the organization.

✓ The documentation and codification process can be made simpler so that the knowledge extracted from the experts and seniors are properly made available for future use.
Detailed plans need to be devised to arm the employees with adequate information on the knowledge management proposals of the organization.

The positive relationship between the barriers and benefits necessitates that orientation need to be given to the employees to cultivate a positive attitude towards the barriers, so that the barriers can effectively act as motivation boosters.

Lack of top management commitment is found to be the major barrier and this needs to be averted. Management’s initiative and enthusiasm can help effective knowledge diffusion.

A supportive and appreciative organizational culture based on transparency and trust is to be created in many organizations to act as a catalyst for effective knowledge migration.

The process of team building can be used as an enabler of KMP and can create mutual trust among the employees which in turn would facilitate voluntary knowledge transfer.

Small organizations can opt for least cost techno-support to adopt knowledge management practices.

Attitudinal barriers and semantic barriers can be averted by conducting appropriate training programmes. The HR policymakers need to consider this aspect for HR policy making.

Rewards and recognition methods can be redesigned in such a way to motivate the workforce to actively take part in the knowledge management programmes. It further generates a satisfied workforce which can really be a valuable resource to the organization.
Inter personal relationship among the employees to be rejuvenated to enhance free flow of tacit and Explicit knowledge as well.

Practical solutions to overcome the attitudinal barriers and organizational barriers are to be developed in order to avoid these barriers which can turn out to be innovation killers in future.

6.4 CONCLUSION

Knowledge management is an wisdom process of converting the data into useful information to gain insight knowledge and creating a knowledge bank for repeated use. A knowledge intensive organization possesses the abilities of systematic problem solving, learning from past experiences and transformation of tacit knowledge into Explicit knowledge.

The present research aimed at assessing the employees’ perception towards the four dimensions of knowledge management practices namely, factors enabling/influencing KMP, implementation strategies, barriers to KMP and benefits of KMP, in the IT sector. The study identified that the top management’s involvement and initiative influence the employees greatly to adopt the KM activities of the organizations.

Most of the organizations lean upon training programmes to implement the KM activities and the implementation strategies positively impact the employees thereby enabling them to nurture their skills. Organizational barriers and system barriers have positive impact on employees to some extent and drive them to act against the barriers by adopting the KM process much seriously.

Demographic factors do influence the perception of the employees. Hence the organizations need to create a conducive work environment and work culture to promote KM and develop effective strategies which can result
in enhanced knowledge acquisition and transfer. In this knowledge era, knowledge management practices contribute to a great extent to harness the valuable experience and knowledge of the workforce in the knowledge intensive IT sector. The knowledge management practices of an organization, if rightly practiced, can help to carve a niche in the industrial arena and also create a significant impact on development of human resources in general.

6.5   SCOPE FOR FURTHER RESEARCH

The present research covers only a few dimensions of knowledge management practices and thus further researches can carried out focusing on the other dimensions of knowledge management. The same research can also be carried out in other sectors like manufacturing sector and in academic sector. The possibility of conducting a comparative study between manufacturing and service sector is also not ruled out.