Chapter 1

Introduction

1.1 Background of the study

The management philosophy of enterprises is going through a radical change with the recognition that only those organizations which are able to develop its own knowledge system can remain competitive. Knowledge system and its management have emerged as the key areas that will provide this competitive edge. The economy is becoming more and more knowledge-based; where the most fundamental resource is knowledge. Organizations generate wealth primarily through knowledge, not capital\(^{28}\), to be more specific. Another aspect of knowledge management is that it puts technology into perspective\(^{18}\), as information and communication technology enable the processes within the knowledge system. Moreover, knowledge management is about knowledge workers and they will learn more, innovate more and contribute more\(^{29}\).

1.2 Focus of the study

In the current global competitive set up, enterprises are struggling to sophisticate their products by adding more and more utilities in a dynamic way and this is not possible without proper knowledge management. Accordingly, the present study focuses on the knowledge management aspects in the highly dynamic knowledge intensive information technology sector in our developing context.
1.3 Conceptualisation of knowledge management

We have made a thorough scan/review of literature as outlined in Appendix I (A scan of literature). In the light of the review, we are conceptualising knowledge management by analysing its two fundamental components, viz., knowledge and management.

1.3.1 Knowledge

It is highly strenuous an exercise to define knowledge in its proper sense because of its abstract nature. As our attempt here is to define knowledge from the perception of firm’s application, it has become more confined. Referring Davenport and Prusak, "knowledge is a fluid mix of framed experience, values, contextual information, expert insight and grounded intuition that provides and environment and framework for evaluating and incorporating new experiences and information. It originates and is applied in the minds of the knower. In organizations, it often becomes embedded not only in documents and repositories, but also in organizational routines, processes, practices and norms".

This definition of knowledge covers the tacit and explicit dimensions of knowledge and treats knowledge as an 'object'. Also, the definition made in the context of organizations, brings out the concept of considering knowledge as an integral part of an organization, residing in the minds of people, captured in documents and embedded in processes, etc. The concepts of knowledge presented here also enable us to visualise knowledge as an organizational asset that can be utilised to generate wealth for the organization.
1.3.2 Management

Graham Winch points out that management today is “coping with change and uncertainty”\textsuperscript{134}. Fluidity, continual adjustment, task redefinition and flexibility have become the hallmarks of today’s management\textsuperscript{89}.

In the context of our research we would need to conceptualise management as applied to the area of our research, i.e. knowledge management. We have to deviate from conventional way of looking at management, and instead, conceptualise management from a strategic point of view, as knowledge system is more missionary\textsuperscript{62}. In this sense, management here would mean building, integrating and utilising the knowledge assets of an organization to realise its strategic objectives in a fast changing environment. Organizations must develop dynamic systems that are open to continuously changing process, product and market contexts. Managers would be compelled to build, integrate, and reconfigure organizational resources and competencies, driven by the dynamic forces at play. Looking from a strategic viewpoint, organizations have to skilfully handle all these different dynamic forces which are essentially knowledge driven, in its pursuit to realise its long-term strategic goals. The knowledge management system need to be integrated with the objectives and strategies of the firm and can therefore naturally lead the firm to advance towards strategically advantageous positions and sustain its competitive edge.

1.3.3 Knowledge management

Among the definitions of knowledge management presented in Appendix I, two definitions which include more contemporary aspects stand out. For the sake of our discussion they are stated here again. The first one is the definition by Xerox quoted by Prof. Paul Quintas, which says that knowledge management is “about creating a thriving
work and learning environment that fosters the continuous creation, aggregation, use and re-use of organizational and personal knowledge. The second definition provided by Nicholas Bahra has a pragmatic flavor which defines KM “as a generic description of the culture, processes, infrastructure and technology within the organization which maintains, grows, and optimises the use of its intellectual capital to deliver the strategic goals of an organization with measurable financial results in the market place.”

The core aspects brought out in these definitions need to be combined to arrive at a more complete definition. The first definition emphasises knowledge at both personal level and organizational level. This dimension is captured by the organization learning process. Another aspect from the definition is the ‘creation, aggregation and usage of knowledge’ which are the characteristics of knowledge development and knowledge application, the knowledge management processes mentioned in Appendix I. Coming to the second definition, the salient features of this are the dimensions of culture, infrastructure and technology, which did not find mention in the previous definition. Again with reference to Appendix I, this relates to knowledge management infrastructure, information and communication technology and organization culture. Taking into consideration the other aspects of knowledge management as well, we arrive at a more suitable definition of knowledge management.

Based on the observations from different literature reviewed, and the definition synthesis attempted above, the researcher would like to formulate, what we feel as a more appropriate definition for KM - “knowledge management is a set of people-centric organizational processes enabled through information and communication technology and aimed at creation and appreciation of intellectual capital and meet the strategic goals of an organization through effective organizational learning and innovation, involving the processes of knowledge identification, knowledge eliciting, knowledge
application and knowledge development and nurtured by a conducive organization culture”.

The highlight of this definition is that this is quite comprehensive and encompasses how knowledge management is visualised and practised, albeit less ideally, by advanced companies in the world. The key aspects addressed are, the “tacit” dimension of knowledge and high importance of people as well as culture in the KM implementation, the enabler role of information and communication technologies, the emphasis on organization learning and innovation and the implementation processes involved.

1.4 Objectives of the study

The broader objective of the research work is to look into the extent of knowledge management developed as well as the different aspects of knowledge management in the developing context of an information technology firm.

The specific objectives are,

(i) to develop a knowledge management index for expressing a firm’s competency in knowledge management process.

(ii) to identify the determinants of knowledge management system.

(iii) to study the changes in patterns of knowledge management corresponding to the variations of its determinants.

(iv) to formulate policy suggestions for developing sound knowledge management practices.
1.5 Approach to the study

An exhaustive and intensive literature review on knowledge management systems was carried out to have an in-depth understanding of the system. Followed by this, a survey of information technology firms was conducted to collect data on the knowledge system and its determinants. An expert opinion study was also done mainly for looking into the strategic policy aspects of knowledge system.

1.6 Scope of the study

Knowledge management is getting evolved in information technology companies in India, as found out in our study. We have observed from the analysis of the survey that almost all information technology firms have started embracing knowledge management in varying degrees, and are going ahead with additional focus in this area. It would be of interest to mention here that knowledge management systems in other segments and its comparison with the knowledge management systems in information technology have not been addressed in the present study.

The application of knowledge engineering in knowledge management has currently not gained prominence, as observed in our study. The scenario is bound to change with more companies employing advanced knowledge-based systems for knowledge acquisition, knowledge encoding and knowledge application. This highlights the scope of knowledge engineering as an area to conduct further studies and research.

Another area which can be addressed in future is the contribution of organization culture for creating effective knowledge systems in India. In our study, it was observed that Indian information technology organizations have to go a long way to develop a culture
which is essentially knowledge oriented. Evolution of knowledge culture in Indian organizations in general and information technology organizations in particular would be a potential topic of research.

1.7 Structure of the study

The study has been structured into seven chapters. The introductory chapter attempts the focussing of the study, conceptualisation of knowledge management and gives the objectives and the approach. The scope of further research in knowledge management is also covered here. The second chapter covers the approach to the study. The analysis of the study is presented in chapters three, four and five. Chapter three discusses the analysis conducted using the data of knowledge management survey. The study of changes in pattern of knowledge management corresponding to variations in its determinants is described in chapter four on simulation results. The analysis of Delphi study and policy suggestions for developing sound knowledge management practices are covered in chapter five, ‘Expert opinion analysis’. Chapter six presents a discussion on the findings of the study. The final chapter concludes the study with a summing up.

The definition of knowledge management, its emergence, global developments in knowledge management and its determinants form the central theme of the Appendix I, ‘A scan of literature’ Also, the application of information technology in knowledge management, among other related topics, is described in the same Appendix. The other Appendices contain the questionnaires used for the knowledge management survey and expert opinion study.