Approach to the study

A brief account of approach to the study is given here.

2.1 Information used for the study

The study has been carried out by utilising a lot of information, gathered based on the following:

a) A scan of literature
b) Brainstorming exercise
c) Knowledge management survey
d) Expert opinion study

2.1.1 A scan of literature

An exhaustive scan of literature was conducted. This included the following:

1) Books
2) Periodicals and Journals
3) Web documents
4) Proceedings

The details of literature scanning are available in Appendix I (A scan of literature).
2.1.2 Brainstorming exercises

Brainstorming exercises were conducted involving subject experts, industry personnel and consultants to generate ideas for the knowledge management survey as well as the expert opinion study.

2.1.3 Knowledge management survey

A survey on knowledge management practices in the information technology sector was conducted in this phase. The survey was conducted using a set of questionnaire among information technology companies based in Thiruvananthapuram and Bangalore. The questionnaire responses were collected in person.

The conduct of survey comprised of following steps.

2.1.3.1 Finalising the objectives and overall content of the questionnaire

The objective of the questionnaire was to collect data regarding the knowledge management practices in information technology companies in our developing context. The content of the questionnaire was therefore decided to have questions that will elicit the practices followed in the organization in managing knowledge. The inputs obtained from the brainstorming exercises were primarily used for this.

2.1.3.2 Deciding on the respondent profile in the firms

Since the survey was aimed to get a comprehensive picture of knowledge management practices, the survey was targeted at three categories of audience, top management/entrepreneurs, knowledge officers and knowledge workers.
2.1.3.3 Questionnaire for top management/entrepreneurs

This survey was intended to collect the following information:

(1) The importance of knowledge as an intangible asset
(2) The focus of the enterprise on knowledge management
(3) Scope for furtherance of knowledge system/management

The questionnaire used is given in Appendix II.

2.1.3.4 Questionnaire for knowledge officers

Knowledge officer is the designated officer in the organization who holds the highest responsibility in the implementation of knowledge management. They have commensurate authority and enjoy the support of top management.

The questionnaire tries to collect data regarding the following:

(1) The approaches and processes followed in knowledge management.
(2) The organization profile in the following areas:
   a) Competency area
   b) Enterprise performance
   c) Communication technology
   d) Training programme
   e) IT infrastructure
   f) Consultancy projects

The questionnaire used is given in Appendix III.
2.1.3.5 Questionnaire for knowledge worker

This survey was intended to collect the following information:

1) The individual profile of the knowledge worker respondent

2) The practices followed by the knowledge worker which has a bearing on the knowledge management system

3) The approaches and processes in knowledge management as perceived and understood from the level of knowledge worker

The questionnaire used is given in Appendix IV.

2.1.3.6 Preparation of questionnaires

The questionnaire was prepared as per the guidelines mentioned above. The following points were also considered in the preparation.

The questions were prepared to collect information on a 1 to 10 continuum, in order to get a more detailed response, instead of the more familiar Yes/No model. The questions for the top management were framed to collect the strategic management perceptions on knowledge management, and were made extremely compact. The questionnaire for the knowledge officer was made very elaborate to collect maximum information. The questions were intended to elicit the real picture of the intensity of knowledge management activities in the organization. The questionnaire for the knowledge worker was made moderately detailed to collect feasible information. The questions were specific and contained only those questions that came under their level of decision making and operations. The responses to these questions should indicate the ground level practices related to knowledge management. The operational level information of knowledge management was the target.
2.1.3.7 Review of questionnaire

The questionnaire were critically reviewed by leading IT consultants and finally by the research guide to ensure the quality, clarity and completeness of the survey.

2.1.3.8 Collecting the responses

Information technology companies operating in Technopark, Thiruvananthapuram and select companies from Bangalore were identified.

From every organization, responses were collected in the following manner:

a. Knowledge worker – minimum one, maximum five
b. Knowledge officer – one
c. Entrepreneur – one

The survey collected responses from 21 companies, out of which 17 set of responses (those provided information on almost all queries) were used for analysis.

2.1.3.9 Processing of responses

The responses of the knowledge officers, being the most reflective of the practice of knowledge management, were taken as the representation of important aspects of knowledge management in the organizations. The responses of the knowledge worker(s) from the corresponding organizations were segregated based on the knowledge management aspect of knowledge identification, knowledge elicitation, knowledge...
management infrastructure, organization policy, organization culture, knowledge development, organizational learning and knowledge application.

2.1.4 Expert opinion study

Expert opinion study on knowledge management in information technology in India was conducted among information technology experts using computer Delphi methodology. The IT experts covered academicians, industry people and IT consultants (list of experts given in Appendix V – Expert panel).

The opinions that got screened in this way were analysed and the median value was used for subsequent analysis. Opinions that provided a semi inter-quartile range of 15 or less were accepted for consensus opinions. The remaining opinions were reformulated and presented again to reach a consensus. We could reach consensus by the second round of expert opinion study.

2.2 Tools used for analysis

Simple mathematical and statistical tools were applied for the analysis. Composite indices of KM (details of this is given in chapter 3), which indicates the extent of knowledge management practices developed in an organization, were developed. Also multiple regression analysis was carried out (also presented in chapter 3) to identify different determinants of knowledge management (knowledge management index being used as the study variable). Besides, computer simulation runs were carried out for analysing the patterns (an account of this is given in chapter 4).