Chapter 6:

. CONCLUSION AND RECOMMENDATIONS
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"Knowledge Management is no longer a luxury for the Indian CEO. It is a necessity that can make all the difference between survival and an early demise."

-- Lester Thurow

6.1 Introduction

This chapter synthesises the detailed observations and insights that emerged from the research, giving concluding comments on the research study by analysing the investigations with reference to the research aims and objectives. To provide the management with useful guidelines to implement the proposed framework of KM performance measures, specific recommendations are given. Limitations of the present research and recommendations for further research studies are also given.

6.2 Achievement of Research Aims/Objectives

This research had aimed at evolving a broad-based approach of performance measurement focussed on knowledge-based organisations like consulting firms. This involved broadening the context of KM performance measurement by investigating the significance of certain non-financial ‘qualitative’ measures along with the traditional hard ‘quantitative’ financial measures like Return on Investment.

The objectives of the research as stated in Chapter 1, and corresponding achievements of this research study against each objective, are given below:

Objective 1:
To examine the possible alternative measures of performance for consulting firms

Achievement:
Extensive literature study was done on the related work, prior to the design of the primary data collection questionnaire/ interview schedule. As the outcome of the literature research and the study of secondary data sources, as many as 74 possible measures of

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1 Author of Zero Sum Society and Head to Head. Professor of economics at Massachusetts Institute of Technology. Quoted in The Times of India, August 19, 2003
Objective 2:
To propose certain new, innovative metrics for measuring quantitative as well as qualitative indicators including those from market/customer related, human/competency development, corporate leadership/strategy/KM practices and technology domains.

Achievement:
The original collection of 74 possible alternative measures formed the basic inputs for final design of the questionnaire, through a really insightful ‘experience survey’ process using the expertise and knowledge of 6 key professionals – as the pre-test exercise. This resulted in identifying 47 measures out of the original 74, for inclusion in the field questionnaire. So in the field survey, the questionnaire/ interview schedule had proposed various new innovative metrics - financial as well as non-financial – as the candidate measures of KM performance in consulting companies. As many as 44 proposed metrics were non- financial, belonging to the categories of market/ customer, human/competency related, corporate leadership/strategy/practices and technological domain. Thus, the respondents at the field research stage had a range of innovative and new metrics before them, to think over and give their responses.

Objective 3:
To evolve an integrated framework of KM based performance evaluation measures for such consulting firms

Achievement:
Chapter 5 has discussed the construction of the recommended framework of KM performance measures for the consulting firms. The structure of the proposed framework - by way of a functional index KMPI as well as pictorial presentation in the ‘radar chart’ format – was also presented. This structure is based on integrated assessment of KM performance for the company on ‘top 12’ KM measures evolved through the statistical
analysis of the primary data. The functional presentation of the evolved framework involves computation of the values of Knowledge Management Performance (KMP) and Knowledge Management Intensity (KMI), based on the relative values of all top 12 measures. Likewise, the KMP and KMI charts also depict pictorially all the 12 important measures in an integrated presentation.

**Objective 4:**

*To validate the concept and structure of the evolved framework through illustrative case studies.*

**Achievement:**

The concept validation of the framework was done with 4 consulting firms based in India. The comparative observations on relevant aspects are discussed for all 4 firms in Chapter 5. In addition, detailed narration and in-depth analysis is done for 2 firms – as the ‘study of the contrast’ as given in Appendix D. The KMPI values for the case firms computed through the recommended framework validate the concept, if compared relatively. The structure of the framework – as the functional index KMPI, as well as the radar charts – was well appreciated by all the case firms studied. They indicated the *ease of understanding and implementation* as the strong point of the recommended framework.

6.3 Recommendations for Implementation of the Framework

In order to make the research useful to management of consulting firms, actionable recommendations are presented below. These relate to the actions recommended as pre-requisite for the implementation of the proposed framework, as well as the on-going actions to be taken by management for keeping up the effectiveness of the framework after implementation.
Actions Recommended As the Pre-requisite:
The recommended framework of KM performance measures is based on ‘top 12’ measures. 9 of these 12 factors are not accurately measurable or easily quantifiable, but have been identified in the field survey as very important. Even within these 9 factors, the ease of accurate assessment/ measurement is different. These 9 measures are given below in the descending order of their importance.

- Customer satisfaction
- CEO’s personality/ leadership style
- Employee satisfaction
- Availability of a knowledge sharing/ dissemination mechanism
- Availability of company’s stated ‘vision’
- Availability of a Quality Management systems/ practices documentation
- Company’s Image
- Reuse rate of existing knowledge/ best practices
- KM integration with strategy

Despite the inherent difficulty for accurate assessment of the above ‘qualitative’ factors, successful and leading companies in consulting sector have already installed some mechanisms for assessment/ quantification of above measures. For example, the illustrative case firms Tata Consultancy Services has put in operation a system for annual assessment of employee satisfaction on a measure Employee Satisfaction Index (ESI). Monitoring of such measures becomes more effective if the firms adopt formal mechanisms for assessments of these ‘qualitative’ factors.

Apart from the company’s own efforts, independent third party agencies like trade associations, federations, independent business research groups and trade media can also play important role for coming out with periodic assessment / rating of various member firms on above measures. For example Dataquest – IDC India annual surveys have become commonly accepted ‘benchmarks’ on some of these measures like customer satisfaction, employee satisfaction etc. for IT consulting/ software sector. NASSCOM,
the apex body and umbrella organisation of the IT companies in India can play an important role for relative benchmarking/assessment of their member firms, on above measures.

So as a prerequisite, the consulting firms have to put in place mechanisms for assessment/quantification of the above measures to aid them in comparing their performance with the benchmarks. Wherever the managements feel, help of external organisations like NASSCOM, MAIT, etc can be taken for evolution of such mechanisms. In respect of firms from non-IT consulting, apex associations like Consultancy Development Centre (CDC) can be requested to assist. Other third party agencies like All India Management Association (AIMA), Business India Group, The Economic Times Research Bureau, etc can also be enlisted for such exercise.

With the above management recommendation, the consulting firms will be on a sound footing for actual implementation of the proposed framework.

**Actions Recommended for Implementation:**

After having established mechanisms for reasonably accurate assessment of the top 12 KM performance measures, the consulting firms have to decide on two things - a reference base for determination of its KMI value, and another benchmark for determination of KMP value.

For determination of Knowledge Management Intensity (KMI), the importance perception of the firm for each of the 12-KM measures is determined with reference to a base of comparison. This base can be consulting domain as a whole or the particular sector/area of the firms operation. The framework presently recommended can be used directly for all IT consulting firms, as far as reference base is concerned. For firms in non-IT sectors too, the present framework provides the reference base for the consulting domain as a whole. However it is recommended that the reference base values should be decided for different consulting sectors like management consulting, engineering project consulting etc. This exercise is recommended to be done with the help of external
agencies like CDC, AIMA, Business India, The Economic Times Research Bureau or specialised trade associations for the sector of firm's operation.

Similarly, for determination of Knowledge Management Performance (KMP), the benchmark has to be decided by the company for comparison of its performance on 12 KM measures. For the illustrative case studies, the recommended framework used the benchmark as the company's own performance in previous periods. Though this benchmark serves useful purpose, it is recommended that the firms should put in place an effective "intelligence mechanism" for collecting the corresponding data on the key competitors and other associated organisations for monitoring its related performance with reference to the competition.

Finally, it is recommended that after successful working of the framework for 2-3 years, a review of the contents (list of which measures to be included for computation of KMPI value) is required - with reference to the base of KMI and also the benchmark decided for KMP. *With time there is a necessity for on-going review of the 'contents', although the 'concept' and 'structure' of the recommended framework will remain the same.*

6.4 Limitations of This Research

For the consulting firms, knowledge management can be a defining feature of their business and a serious competitive weapon. By virtue of the nature of their business, these firms see the capacity to compete on the basis of their accumulated knowledge and expertise. Precisely for the same reason, this research study faced some limitations. To start with, at the literature review stage there was glaring inadequacy of published literature on KM implementation in consulting companies. The other limitation faced was the apprehensions voiced by the respondents during primary data collection. Practically all the respondents had to be convinced about the commitment to the confidentiality of their individual responses. The sensitivity of this issue made it necessary to leave the option of giving the organisational profile information at the individual respondent's discretion. Despite this, as against a planned sample of 100, responses could be obtained...
on the ‘core data’ from 108 respondents—though some responses did not give the identification details of their firms.

The confidentiality issue however, placed a limitation during comparative analysis of various data subsets out of the total data of 108 responses. For analysis of some data subsets, the number of clearly ‘identifiable responses’ turned out to be less than 30 and hence the treatment for ‘small sample’ size had to be given for these subsets, as compared to the data set as a whole or the bigger data subsets (like all firms from IT sector, all firms having a KM system or all Indian firms, etc.).

Another ‘limitation’ of this research relates to differing status of ‘maturity level’ of various organisations in knowledge management. The research was of course, bounded in scope to consulting firms based in India. At the field research stage however, a widely differing level of awareness, knowledge and maturity about knowledge management was encountered even within the bounded scope of research. Comparison of the two case firms given in Appendix D illustrates this point. Perhaps further research can also tackle the issue of widely different levels of KM maturity among Indian consulting firms.

6.5 Recommendations for Further Research

The current work forms the basis for monitoring and continuously improving the knowledge management performance of the consulting companies. Since the responses from IT consulting sector comprised a significantly large portion, all IT firms in India can directly benefit from this work. In addition, however the current study has the potential to initiate a stream of research for different specialised consulting sectors like management consulting, engineering project consulting, education consulting, health care consulting etc. Perhaps the awareness level and maturity about knowledge management will increase further among Indian consulting companies in the next 3-5 years. Hence further research on these different sectors will perhaps be more valuable after 3-5 years.

Another dimension for further research can be the KM maturity level itself. Some further research study can bring out a ‘KMM Index’ (Knowledge Management Maturity Index)
for Indian consulting companies, as a companion of KMPI brought out by the current research study.

Finally, further research is also recommended for a comprehensive longitudinal case study of an organisation which has implemented KM from scratch to see if the KM performance measures suggested in this research can be correlated with its current business strategy.