CHAPTER-I
INTRODUCTION

The last decade of twentieth century represented a turning point in the global development process. Economic development, a multi-dimensional process, is a function of capital, labour and technology. As per endogenous growth theory, capital is divided into: capital stock and human capital. Modern theories of economic growth, like that of Romer, Lucas, Jones and Manuelli, emphasize human capital in their explanation of growth. Romer (1986) states that, “in the long run growth model, knowledge is an input in the production system that has an increasing marginal productivity.” The new approach to knowledge based economy and network society gave impulse, to focus more on production factors that are intangible like information and knowledge etc. Now, the real wealth of nations, sectors and organizations has to be sought in the people, in their knowledge and skills, in the internal processes and reputation. As such in today’s knowledge-based economies and network societies, intellectual capital is a core factor.

The notion of intellectual capital (IC) was first advanced by economist, John Kenneth Galbraith in 1969. It is a packaged useful knowledge that can be converted into value. It is not only about the people but also about the non-human intangible resources like organizational processes and structure systems. Intellectual capital is comprised of three basic components: human capital, structural capital and relationship capital. The work is an attempt to design and empirically prognosticate a model that relates intellectual capital and business performance in the Indian service sector.

Relevance of the Study

Intellectual capital has contributed to the creation of whole new types of business and ways of doing business (Luthy, 1998). Intellectual capital is positively and significantly associated with organizational performance. As developing economies move on the path of globalization and liberalization,
service sector is playing a dominant role in the growth of these economies. In India, tertiary sector share in gross domestic product has crossed the fifty percent mark. This service sector, composed of knowledge intensive industries, produces lot of intangible goods and constitutes a bulk of intellectual capital. Therefore, there is a need to analyze the role of intellectual capital in the performance of Indian service sector. The study is an attempt in this direction. The final output of the work will help in framing a system for quantifying intellectual capital and use it, as a control variable, to maximize the performance of an organization. The target user group for this research will be the corporate world, academicians and policy makers.

**Review of Literature**

An elaborate review of literature on intellectual capital and performance has been done. The intellectual capital (IC) is a packaged useful knowledge that can be converted into value. It is not only about the people but also about the non-human intangible resources like organizational processes and structure systems. Review of literature brings forth both the micro or firm level studies and the macro or national level studies and also the studies focusing on the relationship between intellectual capital and business performance. Service sector has been the main thrust of these studies. Most of the studies on intellectual capital deal with conceptual and measurement issues.

Review of studies is indicative of the fact that very few studies have been done on the intellectual capital assessment and its relationship with performance of an organization. Whatever work has been done, it has been done in the developed economies where elaborate databases are available. The relation of intellectual capital input and business performance is a tricky one. It needs proper metrics or quantification of the two prime variables, the IC and performance. There are very few studies that quantitatively index both the intellectual capital and the performance of a service organization and relate the two. Thus it is relatively an unexplored area of research, as far as Indian
economy is concerned and there exists an ample scope of work. This work is a step ahead to fill this gap.

**Objectives of the Study**

In the present study it is broadly hypothesized that the intellectual capital is positively associated with organizational and business performance. In this context, the main objective of the research is to design and empirically prognosticate a model that relates intellectual capital and business performance in Indian service sector. Hence, following are the main objectives:

a) To review the theory and empirics on Intellectual capital and performance evaluation;

b) To identify metrics of intellectual capital and evaluate the intellectual capital in Indian service sector.

c) To quantify the performance by developing more inclusive measures of performance;

d) To examine the relationship between intellectual capital and business performance in service sector of India;

e) To delineate the policy implication.

**Research Methodology and Data Sources**

Performance evaluation of Indian service sector and relationship between intellectual capital and business performance has been carried out. The population of the study comprises of the entire corporate sector listed companies in Indian service sector. Ten sub-sectors of service sector in India have been selected for analysis, viz.: Information Technology; Real Estate; Retail; Finance (General and Investment); Health Services; Hotels; Trading; Media & Entertainment; Telecom; Banking (Private Banks and Public Banks).

From the universe of the study, 205 companies turn out to be the sample of the study covering the period 2000 to 2012. At least fifteen
companies from each sub-sector have been taken in the sample. The data has been obtained from the public data sources on company’s financial statements and income expenses reports. The secondary data and information have been collected from the publications of the National Stock Exchange (NSE), Bombay Stock Exchange (BSE), Centre for Monitoring Indian Economy (CMIE), Reserve Bank of India publications: ‘Report on Trend and Progress of Banking in India’, ‘Handbook of Statistics on Indian Economy’, Annual Reports of respective companies and other valuable publications of corporate sector in India. Various websites have also been used for the data mining, especially the www.moneycontrol.com.

Intellectual Capital Performance Index (ICP), Value Added Intellectual Coefficient (VAIC) or core Competence Performance Index (CPI) has been calculated. Statistical techniques like percentage, growth rates and correlation analysis have been used. Wherever needed, appropriate price adjustments have been made.

Main Contours of the Study

The study is divided into six chapters. First chapter deals with introduction to the thesis. Second covers the review of theory and empirics and the next chapter elaborates the model formulation and methodological details. There are two chapters on analysis: first elaborates the growth and structure of intellectual capital in Indian service sector at disaggregate level; and next analyzes the relationship between intellectual capital and business performance in Indian service sector. Last chapter lists down the conclusions and policy implications.

Main Limitations of the Study

The study has been undertaken objectively and every effort has been made to make the study effective, strong and up to the mark. No stone has been left unturned while touching any aspect contained within the frame work
of the study. Also efforts have been made to remain in the four-walls of the objectives framed for the study so as to avoid irrelevant discussion and to concentrate on the nucleus of the subject matter of the study. Brevity thus has been given the importance. However the study suffers from following general and specific limitations:

a) The relevant data and information for the study have been collected from the secondary sources. Hence, the study carries all the limitations, inherent with the secondary data and information.

b) There was non-availability of some requisite data.

c) In addition to the parameters covered by the study, some other parameters may exist which may not have been included in the study.

d) Last but not the least, there is non-inclusion of some qualitative aspects in various sectors which could have a bearing on the variables of the study.

Major Conclusion and Recommendation

The emerging model of intellectual capital and core competency based on it is driven by ‘real estate’, ‘telecommunication’ and ‘wholesale trading’ sectors. Sectors like ‘information technology’, ‘health’, ‘media and entertainment’ and ‘hotels and restaurants’ fall in the poor core competency zone of intellectual capital. Other sectors fall in the medium zone of intellectual capital core competency growth. The much talked ‘IT and ITES’ sector is showing the performance on the basis of financial parameters, i.e., by managing the cost and revenue; most of it has been on the basis of cost cutting by lengthening the working day, keeping the pay hikes low, higher attrition, replacing tenured labour with fresher ones and so on. ‘Health’ and ‘media and entertainment’ sectors, poorly endowed with intellectual capital, have also followed the IT and ITES kind of model. Low intellectual capital performance and low core competency is the outcome of poor human capital, poor structural capital and low value addition production system of a sector.

Based on the specified model, analysis is indicative of the fact that significant positive inter-relationships exist within the constructs of
performance and within the constructs of intellectual capital. As per business model approach, the intellectual capital and performance are positively related. This shows that, in order to enhance the profitability, productivity and the overall performance of service sector in India, investment in intellectual capital is need of the hour.