CHAPTER VIII
SUMMARY AND CONCLUSION

The transition of Indian economy from production to knowledge podium and the growing software & IT, financial services, business outsourcing, media, healthcare, pharmaceutical industries etc. have lead to increasing investments in intangible assets. In present competitive business world only commodities do not ensure the success of a firm. To gain success, a firm must have some competitive advantages (Ali et al, 2008). Intangible assets like skilled employees, knowledge relationships, R&D expenditures, worldwide networks, global customer base, satisfied clients, internet and e-commerce, trademarks, brands, markets, patents, corporate cultures etc create competitive advantages for a firm. Resource based value (RBV) theory and VRIO (Valuable, Rare, Inimitable and Organisational Support) framework also emphasise on the role of intangible resources in creating competitive advantages for a firm.

According to the Indian Accounting Standard (AS-28) an intangible assets is an “identifiable non-monetary asset without physical substance held for use in production or supply of goods and services for rental to others, or for administrative purposes.” These assets have been regarded as "Soft" assets and "Weightless Wealth" (Guthrie & Petty, 2000; Grojer and Johanson, 1999).

According to Global Intangible Tracker 2007 (GIT), the most extensive global study ever on intangibles assets by the London based Brand Finance Institute; India is the number three economy in the world with the highest intangible component as a percentage of the total enterprise value (TEV) - value of disclosed and undisclosed tangible and intangible assets. The study also found massive wealth of disclosed and undisclosed intangible assets in India. These undisclosed intangible assets have widened the gap between the book and market value of companies. There is also a shortcoming in the traditional financial reporting model in meeting the information needs of users. The usefulness of these statements as measured by the association between accounting data and capital market values has decreased substantially over the past 20 years (Lev and
Corporate financial reporting needs to evolve to include elements which create value for businesses such as customer satisfaction, brand valuation, business collaborations, corporate culture, etc.

Reporting of intangible assets provides companies with the opportunity to take advantage of increased transparency to capital markets, establishing trustworthiness with stakeholders and to employ a valuable marketing tool (Meer-Kooistra and Zijlstra, 2001). Intangible assets reporting also proves beneficial in diversification and expansion of business, reduction in information asymmetry, lowering borrowing cost (Vergauwen & Alem, 2005), increasing ability to raise capital, enhancing corporate reputation, better allocation of human resources within organization as per their skills and abilities. Measuring and managing intellectual capital improve the decision making capabilities of internal report and annual report users (Guthrie et al 2001). Effective reporting and disclosures of intangible assets also helps in their better management as there is a famous saying "What gets measured gets managed" (Ayuso, 2003a).

Thus the role played by the intangible assets in the value creation for the companies initiated the researcher to venture into such a challenging study.

8.1 OBJECTIVE OF THE STUDY

The objectives of this study are:

- To analyse and compare International, Indian and other standards on intangible assets worldwide.
- To study the extent of disclosure of intangible assets by companies in India.
- To evaluate the impact of different corporate attributes on the extent of intangible assets disclosure by the companies in India.
- To compare the extent of intangible assets disclosures in Indian and UK based companies.
8.2 DATABASE AND METHODOLOGY

BT-500 companies from the private sector rated on the basis of their market capitalization constitute the universe of this study (BT-500 companies, Business-Today, Special issue-November 29, 2007). To measure the extent of intangible assets disclosure, a sample of 243 companies was selected and studied for the financial years 2003-04 and 2007-08 respectively. To compare the extent of intangible assets disclosure in Indian and UK based companies, information was sorted from annual reports of 92 UK companies listed on London Stock Exchange which are part of FTSE-100 (index on London Stock Exchange) as on 23 June, 2008.

The annual reports were the major source of data collection. Websites of the respective companies and EDIFAR dataset of annual reports were primarily used to collect the annual reports of the sample companies. Annual reports are considered to be most widely distributed and regularly produced document which influences investors. The data related to corporate attributes for the two financial years have been taken from PROWESS database of CMIE (Center for monitoring Indian economy).

To measure the level of intangible assets disclosure for sample companies, a content analysis was performed on their annual reports. Intangible assets Disclosure Index comprising of 29 attributes in 5 main categories was prepared. Numerical scoring technique was used to assign scores (0,1or 2) to intangible assets information. A score of ‘0’ was used to indicate that an attribute did not appear in the annual report; a score of ‘1’ represents an attribute appeared in qualitative aspect; and a score of ‘2’ shows an attribute in quantitative form.

A number of statistical techniques have been used for the analysis of data. Data for 2003-04 and 2007-08 has been analysed using descriptive statistics and two-tailed independent samples t-test. The attribute-wise disclosure score and company-wise disclosure score were also calculated. The Two-factor ANOVA, Product moment correlation coefficient analysis, Univariate and Backward step-wise regression analysis have been used to analyse the impact of corporate specific attributes on the extent of intangible assets disclosure of selected companies in India for the two years of the study. In order to compare the disclosure practices in India and UK based companies, again the
use of descriptive statistics and two-tailed independent samples t-test was made. A comparative study of attribute-wise analysis and category-wise analysis was also made.

8.3 **HYPOTHESES OF THE STUDY**

Keeping into consideration the third objective of the study, the following null and alternate hypotheses were framed and tested:

- **H₀₁**: The size of a company as measured by its total assets or total sales or total market capitalization has no significant impact on its intangible assets disclosure score.
- **H₁**: The size of a company as measured by its total assets or total sales or total market capitalization has a significant impact on its intangible assets disclosure score.
- **H₀₂**: The leverage of a company as measured by its debt-equity ratio has no significant impact on its intangible assets disclosure score.
- **H₂**: The leverage of a company as measured by its debt-equity ratio has a significant impact on its intangible assets disclosure score.
- **H₀₃**: The audit firm size of a company has no significant impact on its intangible assets disclosure score.
- **H₃**: The audit firm size of a company has a significant impact on its intangible assets disclosure score.
- **H₀₄**: The profitability of a company as measured by its ROA or ROS or ROCE or RONW has no significant impact on its intangible assets disclosure score.
- **H₄**: The profitability of a company as measured by its ROA or ROS or ROCE or RONW has a significant impact on its intangible assets disclosure score.
- **H₀₅**: The listing category of a firm has no significant impact on its intangible assets disclosure score.
- **H₅**: The listing category of a firm has a significant impact on its intangible assets disclosure score.
- **H₀₆**: The extent of foreign activity of a company as measured by its total exports to total sales ratio has no significant impact on its intangible assets disclosure score.
- **H₆**: The extent of foreign activity of a company as measured by its total exports to total sales ratio has a significant impact on its intangible assets disclosure score.
- **H₀₇**: The nature of industry to which a company belongs has no significant impact on its intangible assets disclosure score.
H7: The nature of industry to which a company belongs has a significant impact on its intangible assets disclosure score.

8.4 MAJOR FINDINGS OF THE STUDY

8.4.1 Comparison of Accounting Standards on Intangible assets

1) International Accounting Standard-38 (IAS-38) on intangible assets was issued by the International Accounting Standards Committee (IASC) in September, 1998. Other countries have also issued separate accounting standard on intangible assets like AS-26 in India, SFAS-142 in US, FRS-10 in UK and ASBE-6 in China.

2) International financial reporting Standard (IAS-38) has been used as a yardstick for the comparison of accounting standards as most of the countries are harmonising their national accounting practices with IFRS. All European countries have adopted IFRS since 1 January, 2005.

3) IAS 38 (IASB), FAS 142 (US GAAP), FRS 10 (UK GAAP), AS 26 (Indian GAAP) and ASBE 6 (Chinese GAAP), all cover many of the same topics, and reach the same conclusions on many issues.

4) As per IFRS, US GAAP and Chinese GAAP intangible assets can be of definite or indefinite life. On the other end Indian GAAP and UK GAAP differs and has a rebuttable presumption of maximum useful life being 10 and 20 years respectively.

5) Under US GAAP except some software and website development cost all research and development costs are expensed, unlike IFRS, UK GAAP, Indian GAAP and Chinese GAAP. On the other hand, IAS 38, FRS 10, AS 26 and ASBE 6 allow for capitalization of all development costs when specific criteria are met, contrary to US GAAP.

6) Only IFRS and UK GAAP allow the revaluation of intangible assets out of the pool of other accounting standards compared.

7) The only significant difference between IAS 38 and FRS-10 relates to capitalization of development costs. Where the capitalization of development costs is compulsory under IAS 38 if certain criteria are met, it is optional under
FRS 10. Further, in terms of the treatment of goodwill after initial measurement, IFRS-3 on Business combinations requires that goodwill should be subject to annual impairment reviews, but should not be amortized. While under FRS 10 there is a rebuttable presumption that the useful life of goodwill does not exceed 20 years, with amortization over the useful life.

8.4.2 Extent of Intangible assets Disclosure

1) The level of intangible assets disclosure is low in case of Indian firms, though it has improved in the year 2007-08 as compared to the year 2003-04.

2) Out of the five categories of the intangible assets disclosure index, external capital is the most reported category for both the years of the study. It has disclosure score of 38% and 36% in the years 2003-04 and 2007-08 respectively. This could be due to the pivotal role of these disclosures in influencing stakeholder decisions. In order to prove their edge over their competitors the companies might want to emphasize on relations with their distributors, business associates, customers, society and other organizations, and promote their brand, which are all attributes of external capital.

3) In all the five categories the attributes most reported are “number of employees” (human capital), “markets & market share” (external capital), “business collaborations” (external capital), “research projects” (internal capital), “intangible assets valuation” (mandatory disclosure requirement).

4) Reporting of intangible assets is very unorganised and unsystematic. This is due to lack of an established, and generally accepted framework for reporting these assets. It may also be the case that companies are genuinely committed to the idea of managing and developing their intangible assets but do not have, or are not aware of benefits, from its disclosure to stakeholders. Some companies view the development of intangible assets as being an internal management issue and therefore outside the scope of the annual report (Guthrie, 2000).
The lack of established and generally accepted intangible assets reporting framework has contributed to unorganised and unsystematic reporting of these assets.

Analysis of qualitative and quantitative nature of disclosure shows that the intangible assets reporting is mainly qualitative. Though in the year 2007-08 there is a shift in trend towards quantitative disclosures over the year 2003-04.

The mean disclosure score of intangible assets for 243 companies improved in 2007-08 over 2003-04 and those differences are significant at 1% level of significance.

Most of the intangible assets disclosures were found in the Management Discussion and Analysis (MDA) section of annual report.

Infosys Technologies Ltd has the highest intangible assets disclosure score for both years of the study (2003-04: 68.52%, 2007-08: 81.48%). Satyam Computer Services Ltd., Tata steel Ltd., Max India Ltd., Reliance Industries Ltd., Larsen and Toubro Ltd., Dr.Reddy Ltd., Wipro Ltd., are few other companies with high disclosure scores for both the years of the study.

Software industry has highest mean disclosure score in India. This could be motivated by the paramount importance of intangible assets in this knowledge-based industry and high overseas stakeholder’s expectations.

**8.4.3 Company Attributes and Extent of Intangible assets Disclosure**

1) The two-factor ANOVA test revealed significant differences (at 1% level) in the intangible assets disclosure score over both years of the study and over all the categories (high, medium and low) of all corporate attributes. Fisher’s LSD post-hoc test shows big size firms with high profitability, low leverage and high foreign activity disclose more about their intangible assets.

2) The Univariate regression analysis for the two years of the study revealed that the size of a firm measured in terms of three explanatory variables namely, total assets, total sales and total market capitalization have significant positive impact on the intangible assets disclosure level of selected companies in India. The profitability of a company as measured by ROCE has positive association with
disclosure score for both the years of the study. It is significant at 1% level of significance for the year 2003-04. The audit firm size (positive at 1% level of significance), listing category of a firm (positive at 1% level of significance) and the level of foreign activity of a firm (positive at 1% level of significance for 2003-04 and 5% level of significance for 2007-08) have significant association with disclosure score. The industries namely, construction (negative at 5% level of significance), drugs and pharmaceutical (positive at 10% level of significance) and steel industry (negative at 10% level of significance) are significantly associated with the disclosure score for the year 2003-04. For the years 2007-08 transport industry (negative at 10% level of significance) is significantly associated with the disclosure score. The leverage of a firm has negative (insignificant) association with disclosure score. Thus, the results move in the predicted directions.

3) The backward stepwise regression analysis reveals that the size of a company measured by market capitalization (positive at 1% level of significance) and audit firm size (positive at 1% level of significance) affect the intangible assets disclosure score of the companies in India. Together they explain 41.2% variations in the disclosure score for the year 2003-04.

4) The backward stepwise regression analysis reveals that the size of a firm measured by market capitalization (positive at 1% level of significance), audit firm size (positive at 1% level of significance) and nature of industry (banking, capital goods, construction, steel and transport industry-negative at 5% level of significance) explain 30.7% variations in the disclosure of intangible assets of the selected companies for the year 2007-08. Adjusted R² has come down in the year 2007-08 as compared to the year 2003-04 may be because the variations in the intangible assets disclosure has narrowed down in the year 2007-08.

5) The results of backward stepwise regression analysis done on the basis of industry as a dummy variable reveals that size of a firm, audit firm size and nature of industry as significant variables that are influencing the intangible assets disclosure score at 1% level of significance. Together they explain 42.4%
variations in the intangible assets disclosure for the year 2003-04 and 30.7% variations for the year 2007-08. In comparison to detailed industry classification, by sorting companies into two broad categories (“high intangible intensive firms” and “others”), adjusted $R^2$ has slightly increased for the year 2003-04 and remained same for the year 2007-08.

6) On the basis of the results of the present study, it can be concluded that the size of a firm, audit firm size and nature of industry have significant positive impact on its disclosure of intangible assets and are in predicted direction. Therefore the alternative the hypothesis $H_1$, $H_3$ and $H_7$ has been accepted for this study. The results of the present study were compared with past research on intangible assets disclosure practices in different countries setting. It was observed that the results of the present study are consistent with the past research.

8.4.4 Comparison of Intangible assets Disclosure by Indian and the UK companies

1) The level of intangible assets reporting is low in both the countries under study. However the overall reporting on intangible assets is slightly better in UK.

2) Out of the five categories of the intangible assets index, external capital is the most reported category for both the countries. It has disclosure score of 36% in India and 43% in UK. In the present knowledge based competitive world the dominance of external capital can be justified by increased role played by customers, brands, suppliers, business partners and society in the business. Companies in order to show their edge over their competitors emphasize on relations with their customers and other organisations, and promote their brand, which are all attributes of external capital.

3) The attributes most reported in case of Indian companies are “number of employees” (human capital), “markets & market share” (external capital), “research projects” (internal capital) and “intangible assets valuation” (mandatory disclosure requirement).

4) The attributes most reported in case of UK based companies are “number of employees” (human capital), “Social Activities” (external capital), “research
projects” (internal capital) and “intangible assets valuation” (mandatory disclosure requirement).

5) The nature of intangible assets reporting is more or less the same for UK and India. Disclosure is more in discursive (Qualitative) form rather than numerical (Quantitative) form for both the countries. Lack of consensus about the need of the disclosure and the manner of disclosing it in the annual report might be a cause for low level of quantification.

6) In India Infosys Technologies Ltd. has the highest intangible assets disclosure score. BT Group has highest intangible assets disclosure score in the UK.

7) Overall mean disclosure score is 28.09% for Indian companies and 31.01% for UK companies. The result of T-test showed that these differences are significant.

8) The range of mean disclosure score is higher for Indian companies (1.85% to 81.48%) than UK companies (11.11% to 53.70%).

9) Reporting of intangible assets is very unorganised and unsystematic in both the countries. The lack of established and generally accepted intangible assets reporting framework could have contributed to it.
8.5 IMPLICATIONS OF THE STUDY

The present study has implications for investors, The Institute of Chartered Accountants of India (ICAI), The Securities and Exchange Board of India (SEBI), academicians and researchers.

The study enhances the knowledge of investors with the extent to which companies are disclosing their intangible assets information. This intangible assets information can be used by investors in making wise investment decisions. This study also makes investors aware about the significance of evaluating intangible assets of a firm before making investments in it.

This study can be of immense use to the Institute of Chartered Accountants of India and The Securities and Exchange Board of India (SEBI). It may assist them to understand better the factors that affect the extent of disclosure of intangible assets information by companies. They may draw upon this knowledge while formulating future accounting standards and corporate reporting requirements. The study also highlighted that very limited disclosure was made on intangible assets attributes like work-related knowledge, entrepreneurial spirit, human resource accounting, brand valuation, organization structure, networking and information systems, copyright. These findings show that the ICAI should develop an accounting framework to account for those intangible assets that do not have any accounting standards yet. The results of this study confirm that what is lacking is a common accepted framework for intangible assets reporting.

This study has implications for academicians as well. It provides an overview of the evolution of intangible assets reporting over a period of two years 2003-04 and 2007-08, suggesting that there is a growing awareness of the need to report intangible assets. Further, it provides useful comparative insights into intangible assets reporting, by comparing findings using Indian and UK companies’ data. It can help the researchers as this study can provide a base for further research in the area of intangible assets accounting and reporting.
8.6 SCOPE FOR FURTHER RESEARCH

Intangible assets disclosure is a vital area of research throwing light into various aspects of intangible assets reporting practices of companies. No single thesis can cover such a wide spectrum of intangible assets accounting and reporting practices. Further research is needed to cover the following dimensions of intangible assets reporting.

1. Impact of intangible assets disclosure on market capitalization of a company.
2. Impact of intangible assets on the performance of a company.
3. Research can be carried out to suggest an appropriate framework for measuring intangible assets.
4. Multi-country comparison of intangible assets disclosure practices can also be done.