CHAPTER-I
INTRODUCTION

The advent of knowledge economy has changed the value creating mechanism of companies. Traditionally companies used to compete with each other on basis of the strength of their physical assets like raw material, plant & machinery etc. However, in the present business scenario corporates endeavour to create an edge over its competitors is reflected through their investment in intangible assets. Intangible assets vis intellectual capital, knowledge relationships, trademarks, brands, patents, know how, corporate cultures, R&D expenditures, worldwide networks, global customer base, satisfied customers, internet and e-commerce, organisation structures, skilled employees etc are becoming basic drivers for achieving competitive strength (Ayuso, 2003a; Tseng & Goo, 2005). Intangible assets have become fundamental resource for wealth creation and progress.

Intangible resources have moved from the periphery to the core of our modern economy (Marr 2007). They essentially represent the secrets of business enterprise, the key resources and factors that enable it to compete effectively in market place (Osterland, 2001). The strategic management of intangible assets plays a very decisive role in modern business initiatives. “The computation of the true value of a company requires a comprehensive assessment of both tangible and intangible assets” (Satyam Computers, Annual report 2007-08). Prof. Lev (2003) found that both cost-cutting initiatives and large strategic investments like mergers and acquisitions require more transparency concerning the intangible assets of business enterprise.

The significance of intangible assets in organisations can also be explained with the help of Resource based view (RBV) as suggested by Grant (1991) and VRIO (Valuable, Rare, Inimitable and Organisational support) Framework of Barney (1997) to identify the sources of competitive advantage. Resource based theory argues that a company is a combination of resources and capabilities. The resources and capabilities of
a firm are the basis of a firm’s competitive advantage and are thus the central consideration in formulating strategy. The VRIO framework of competitive advantage has emerged from this perspective as a useful way of characterizing strategic assets. In this framework resources and capabilities should be Valuable (economically important, that is, they create value for the company), Rare (unique, i.e. only few companies have these resources), Inimitable (hard to copy, i.e. it can be costly to duplicate them and difficult to figure out what other companies are doing to have such strategic assets), and they have Organizational Support (strong management support and processes and systems to support the assets).

According to Kaplan and Norton (1992) the strategic resources that determine future success are intangibles. Barney (2001) argues that “sustained competitive advantage derives from the resources and capabilities ... bundles of tangible and intangible assets, including a firm’s management skill, its organisational processes and routines, and the information and knowledge it controls”. Some authors posit that knowledge-based assets and intangible assets are the advantage-creating resources referred to in the RBV of the firm literature.

Further (Grant, 1996, p. 110) suggested that the “knowledge-based view” of the firm is an outgrowth of the resource-based view of the firm to the extent that it focuses upon knowledge as the most strategically important of firm resources”. Under the knowledge-based view of the firm “the organization is seen as an institution for integrating knowledge, the critical input in production, and the primary source of value is knowledge” (Grant, 1996, p. 112). This perspective views all human productivity as knowledge dependent and considers machinery and equipment as embodiments of knowledge (Grant, 1996; IFAC, 1998). Therefore the intangible assets are the knowledge of the firm as embedded in the skills and experience of its employees, its policies, procedures and routines, and its relationships with its customers, suppliers, financiers and other stakeholders (Bharadwaj, 2000; Grant, 1996).
Hence, companies use VRIO framework to identify their intangible resources and capabilities which can create sustainable competitive advantage for them. Enhanced investments in such resources and their efficient management can help companies in value creation for various stakeholders.

There is 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 Zarowin, 1999). Intangible assets which have become increasingly important with the advent of knowledge based economy, have the potential to explain many of the differences causing divergence between firm’s market value and book value that is unexplained through traditional financial reporting (Brennan & Connell, 2000; Sujan & Abeysekera, 2007).

In today’s times, Knowledge is new synonyms for power. This is equally true for India as for rest of the world. Bozzolan et al (2006) explains the fact that knowledge based companies in most cases are characterised by new and more high risk business models in which intellectual capital constitutes a key driver in the value creation process. Accordingly study of accounting and reporting of Intangible assets (i.e. knowledge) is imperative.

1.1 MEANING AND CATEGORIES OF INTANGIBLE ASSETS

The concept of intangible assets is quite complex and therefore difficult to define. This is evident in the number of different definitions existing in the literature (Sujan & Abeysekera, 2007) ranging from intangibles as ‘hidden capabilities’ of an organisation (Edvinsson and Malone, 1997), a subset of intangible capital (Hunter et al., 2005), the difference between the market value and the book value of a firm (Ordonez de Pablos, 2005), knowledge based resources that contribute to the creation of a competitive advantage for the firm (Ordonez de Pablos, 2005) and knowledge based assets which can be leveraged to give rise to future value of firm (Woodrock & Whiting, 2009) etc. The
IFAC (1998) has referred to intellectual capital as “… the total stock of capital or knowledge-based equity that the company possesses.”

From an economic planner’s viewpoint an “asset” is an item that is expected to yield its controller future economic benefits. An asset is intangible when the item in question does not have physical substance. 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). Lev (2001) uses the terms intangible assets, knowledge assets and intellectual capital interchangeably, arguing that they differ only in their discipline of origin- the accountant’s intangible assets are knowledge assets for economists and intellectual capital for managers and lawyers.

Intangible assets of a company can be classified into four main categories-Human resources, External assets, Internal assets and Intellectual property assets. (Meritum, 2000; Guthrie et al, 2001; Vergauwen and Alem, 2005)

**Human resources:** Human resources represents the expertise, education, vocational qualifications, work-related knowledge, innovation, leadership, entrepreneurship and managerial skills in the employees of an organization which they bring and take home with them when they join or leave the firm. Simply, human capital represents the individual knowledge stock of an organisation as represented by its employees (Bontis et al, 2002). It is the ‘thinking and doing’ capital which captures the knowledge, professional skills and experience and creativity of employees (Li et al, 2008) It is the accumulated value of investments in employee training, competence and future (Ordonez de Pablos, 2003). This category also highlights the employee-based value drivers for a company. Cooperation and coordination among human resources of a company is the means by which exchange of knowledge and creation of new knowledge is made possible. It is the single most important and powerful factor that differentiates one
organis
organisation from another. It consists of specific individuals who cannot be owned by the company, nor can it be copied by any of its competitors. When a company invests in human capital, it increases its own value, gaining a sustainable long-run competitive advantage.

External assets: This intangible assets category represents relationship of a company with its customers, suppliers, business partners, industry associates, market channels, investors, society etc. External assets are the market related intangibles that enhance the fitness of an organization for succeeding in the marketplace. Examples are customer loyalty (reflected by the repeat business of the company), distribution channels, company names, business collaborations, favourable contracts and brand value.

Internal assets: Internal assets are systems, routines, technologies, databases, methodologies, processes and culture that are specific to an organization. It comprises the capabilities of a company, its infrastructure and organisational processes to manufacture products and render services to the market. It is the pool of knowledge that remains with the firm at the end of work, after employees have left (Stewart, 1997). Intangible assets of this category are idiosyncratic to a company and they constantly need to adapt to changing business scenarios. These assets give the organization a unique advantage over its competitors as these assets are not licensed to outsiders and are under company’s control.

Intellectual property assets: Intellectual property assets include know-how, copyrights, patents, products and tools that are owned by a corporation. These assets are valued based on their commercial potential. A corporation can derive its revenues from licensing these assets to outside users.

1.2 SIGNIFICANCE OF REPORTING INTANGIBLE ASSETS

The importance of intangible assets has augmented with the advent of information age and the virtual economy. Corporate financial reporting needs to evolve to include elements which create value for businesses such as customer satisfaction, brand
The disclosure of such intangible assets is presently restricted in the financial statements under the prevailing reporting practices. The Financial Accounting Standards Board (FASB) requires that "financial reporting should provide information that is useful to present and potential investors and creditors and other users in making rational investment, credit and similar decisions."

As per Meca (2005) “Capital market now is requesting more reliable information regarding knowledge resources in a company such as risk factors, strategic direction, managerial qualities, and innovatory skills.” Also the constantly shrinking book value of corporations in relation its market value have been regarded as the value of intangible assets of corporations being rising (Lev, 2001) Thus the reporting of intangible assets will help in minimising the gap between book value and market value. It will further help in improving information to stakeholders about the real value of a company.

Reporting of intangible assets is valuable to company’s profile as well. It provides them 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 its management as there is a famous saying "What gets measured gets managed" (Ayuso, 2003a).

Intangible assets reporting also strengthen the international competitiveness. It is very advantageous to companies in formulating resource based strategies. As Gallego and Rodriguez (2005) have considered intangible assets as the basis of competitive advantage and their valuation and management as key to designing company strategy.
From societal and economy viewpoint consolidated investments / spending on intangibles can improve macro economic decisions and increases the understanding of the relations between innovations, intangibles, employment and growth (Grojer & Johanson, 1999).

1.3 HISTORICAL PERSPECTIVE OF INTANGIBLE ASSETS

The development of intangible assets reports can be sourced to the desire to improve the understanding of what comprised the value of the business so as to manage better those things that generate value (Sveiby, 1997; Edvinsson and Malone, 1997). The most renowned intangible assets management models which have been developed are the Balanced Scorecard (Kaplan and Norton, 1992), the Skandia Navigator (Edvinsson and Malone, 1997), the IC-index (Roos et al, 1997), the Intangible assets Monitor (Sveiby, 1997) and the Brooking Intellectual Capital Model (Brooking, 1996). These models pioneered the concept of intangible assets reporting in late 20th century. These models are briefly discussed below:

1.3.1 Balance Scorecard

Kaplan and Norton introduced the concept of a Balanced Scorecard in 1992. It is one of the first tools that was developed for strategy formulation, implementation and control, including not only financial elements but those non-financial (intangible) elements which influence organisational performance. The balanced scorecard enables companies to track financial results while simultaneously monitoring progress in building the capabilities and acquiring the intangible assets they would need for future growth (Kaplan and Norton, 2006). Only one of the four balanced scorecard “perspectives” is in fact financial while others are non-financial as shown in Figure 1.1. The three non-financial or intangible factors studied are internal processes perspective, customer perspective and learning and growth perspective. Kaplan and Norton (2000) showed the four perspectives of Balanced Scorecard as interlinked and layered so that the financial results are driven by customer satisfaction, which are in turn driven by internal processes and underneath these three layers are the boundaries of learning and growth perspective.
Kaplan and Norton did not design the Balanced Scorecard for management of intangibles in particular. It was an approach towards measuring strategic company performance in a holistic way. However Kaplan & Norton included the following intangible assets as a key component of the learning and growth perspective in the year 2004.

- Human Capital (employees, skills, talent and knowledge)
- Information Capital (databases, information systems, networks and technology infrastructure)
- Organisational Capital (culture, leadership, employee alignment)
As companies and other organizations are increasingly depending on their intangible assets in the formulation of their competitive strategies, scorecards are becoming a vital tool for management control. Management control based on financial numbers alone gives very little guidance to a manager whose most important decisions concern intangible assets like customer relations, competencies, brands, systems, employee training, business collaborations etc. The current interest in scorecards reflects the increasing dependence of all organizations on their intangible assets, and of the need to engage employees in the pursuit of strategies where the long term development of intangible assets is a key to business success.

1.3.2 Skandia Navigator

The Swedish insurance company Skandia was the first large company to publish intellectual capital report accompanying its traditional financial report to shareholders in the year 1994. Leif Edvinsson was the chief architect behind Skandia’s initiatives. He developed a dynamic and holistic intellectual capital reporting model called the Navigator having five areas of focus - financial, customer, process, renewal and development and human capital as shown in figure 1.2. This new accounting taxonomy sought to identify the roots of the company’s value by measuring hidden dynamic factors that underlie ‘the visible company of buildings and products’ (Edvinsson and Malone, 1997). According to Skandia’s model, the hidden factors of human and structural capital comprise intellectual capital when added together (figure 1.3).

Human Capital has been defined as the combined knowledge, skill, innovativeness and ability of the company’s individual employees to meet the task at hand. It also includes the company’s values, culture and philosophy. Human capital cannot be owned by the company.

Structural Capital is the hardware, software, databases, organisational structure, patents, trademarks and everything else of organisational capability that supports the employees productivity - in other words, everything that gets left behind at the office when employees go home. Structural capital also provides customer capital, the relationships developed with key customers. Unlike human capital, structural capital can be owned and thereby traded.
Intellectual Capital equals the sum of human and structural capital. According to Edvinsson and Malone (1997), intellectual capital encompasses the applied experience, organisational technology, customer relationships and professional skills that provides a company with competitive advantage in the market.

In sum, Skandia Navigator was designed to provide a balanced picture of the financial and intellectual capital that combine to estimate the company’s market value as shown in Figure 1.3. The focus on financial results, capital and monetary flow was complemented by a description of intellectual capital and its development.

**Figure 1.2**

**Skandia Navigator**

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**Operating Environment**

(Source: L Edvinsson and M S Malone, 1997)
1.3.3 IC-index

The notion of an IC-Index was first advanced by Goran Roos and his colleagues at the Intellectual Capital Services Ltd. and was first used by Skandia in its 1997 Intellectual capital supplement to the annual report. The IC-Index is an example of ‘second generation’ practice that attempts to consolidate all the individual indicators into a single index and to correlate the changes in intellectual capital with changes in the market (Roos et al. 1997). Since Skandia’s adoption, the logic of an IC-index has been endorsed and implemented by many other practitioners. According to Roos et al (1997), the IC-Index has several distinct features:

- It is an idiosyncratic measure;
- It focuses on the monitoring of the dynamics of IC;
• It is capable of taking into account performance from prior periods;
• It sheds light on a company different from an external view typically based on an examination of physical assets;
• It is a self correcting index in that if performance of the IC-index does not reflect changes of the market value of the company, then the choice of capital forms, weights and/or indicators is flawed.

The IC-Index is context specific because it permits boundaries to be placed around the measurement of intellectual capital. Roos et al (1997) also posed that the specific measurement of company IC forms, weightings and indicators can be decided by knowing the company’s strategy, characteristics of the particular business of the company and its day to day operations.

1.3.4 Brooking Intellectual capital Model

Annie Brooking (1996) developed this model in her book Intellectual Capital. The model states that the market value of a firm consists of two elements: tangible and intangible assets. Intellectual capital is formed by four asset categories (figure 1.4): market assets (brands, customers); human assets (education, specific task knowledge, skills); intellectual property skills (patents, copyrights, design rights, commercial secrets); and infrastructure assets (organisational culture, information systems, business philosophy). Brooking proposed that the value an organisation place on its intellectual capital is wholly dependant upon the goals of the organisation and the state of the market.

Figure 1.4

Brooking Intellectual capital Model

CORPORATE GOAL

Intellectual Capital


(Source: Brooking, 1996)
1.3.5 Intangible assets Monitor of Sveiby

Sveiby proposed a conceptual framework called intangible assets monitor in the year 1997. The framework was based on three categories of intangible assets (figure 1.5)- external structure (brands, customer and supplier relations); internal structure (the organisation management, legal structure, manual systems, attitudes, R&D, software); and individual competence (education, experience). In his conceptual model, Sveiby also identified three measurement indicators for each of the three intangible assets categories which are growth and renewal, (i.e. change), efficiency and stability. According to Sveiby, the purpose of measuring these three indicators of growth, efficiency and stability for each of the three categories of intangible assets is to outline the factors that should be monitored to measure intangible assets. It provides a structured guidance for management of intangible assets. Thus the Intangible assets Monitor model suggested by Sveiby does not merely measure human, external and internal capital, but rather measure whether the intellectual capital of the organisation is being managed in a way that ensures increased organisational growth, efficiency and stability.

**Figure 1.5**

Sveiby’s Intangible assets Scheme

<table>
<thead>
<tr>
<th>Intangible assets</th>
<th></th>
<th>Individual Competence</th>
</tr>
</thead>
<tbody>
<tr>
<td>External Structure</td>
<td>(brands, Customer and Supplier Relations)</td>
<td>(education, experience)</td>
</tr>
<tr>
<td>Internal Structure</td>
<td>(the organization management, legal structure, manual systems, attitudes, R&amp;D, software)</td>
<td></td>
</tr>
<tr>
<td>Individual Competence</td>
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</tbody>
</table>

(Source: Sveiby, K.E., 1997)

In addition to the above intangible assets management models, contributions have also been made in the past by the MERITUM and the Danish Guidelines which specifically addressed the issue of how to report on intellectual capital in practice.

1.3.6 MERITUM Guidelines

The MERITUM (Measuring Intangibles to understand and Improve Innovation Management) Guidelines, developed from 1998 to 2001, were based on best practices observed among eighty European firms and were validated through a delphi study. The MERITUM Guidelines describe how to prepare an Intellectual Capital Report, comprising
three parts (Figure 1.6). First part is the ‘vision of the firm’, that is, a narrative of the firm’s strategic objectives and critical intangibles. Second part is the ‘summary of intangible resources and activities’, which represents a disclosure of the activities to be developed in order to attain the strategic objectives. And third part is the ‘system of indicators’, which allow the reader to assess how well the company is doing in attaining its objectives. The Guidelines recommend to classify the different intangible resources and activities, as well as their corresponding indicators, under three categories (human capital, structural capital and relational capital) which jointly conform the intellectual capital of the firm:

Figure 1.6

A Scheme for the presentation of Intellectual Capital Reports under MERITUM Guidelines

(Source: MERITUM Guidelines, 2002)
1.3.7 Danish Guideline

The Danish Guideline, developed from 1997 to 2000, describes the method to prepare an ‘Intellectual Capital Statement’ in practice. The Guideline emphasizes that the intellectual capital statement is an integral part of working with knowledge management within a company, but does not specifically describe a model for knowledge management. It proposes a process for preparing intellectual capital statements comprising four phases:

- **Knowledge narrative**: It involves defining the mission of the firm, the ‘use value’ (i.e. the value for the final customer) of the product or service offered by the firm and the conditions of production, with a special emphasis on the system of knowledge and competencies.

- **Management challenges**: This phase consists of the identification of a set of ‘management challenges’ which are to be addressed in order to develop and realize the ambition defined in the knowledge narrative. In other words, it involves translating the company’s knowledge narrative into specific management challenges. More importantly, it involves a selection of an action plan among the different strategic alternatives available to implement the knowledge narrative.

- **Actions and indicators**: In this phase the objective is to develop detailed actions attached to each management challenge, as well as specific indicators to measure the impact of each of those actions. With respect to the classification of these actions and indicators, the Danish Guideline is very flexible, proposing some examples but not a unique classification method.

- **Reporting**: This phase involves the final preparation of the intellectual capital statement, which is composed of text, figures and illustrations. The text serves to communicate the company’s knowledge narrative, its management challenges and actions, as well as to provide a general description of the company.

The figure 1.7 present a detailed picture of the different management challenges, the actions attached to them, and the specific indicators used to measure the impact of those actions. The illustrations are specially important to communicate the style and cultural identity of the company.
1.4 NEED OF THE STUDY

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 by the companies.

India emerges at the top of the pedestal in the present knowledge-driven global marketplace, where intangible assets such as intellectual property, brand, customer relationship and talent hold much more value than tangible ‘visible’ assets such as capital, land, building, factories etc. 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 survey covered 5000
companies in 32 countries. With an estimated intangible assets component of 74% (as proportion of TEV), India is just behind US (75%) and Switzerland (74%). The global average of intangible to TEV is 65%. It was also found that India's TEV of $365-billion (2006) accounts for a meagre 0.8% of the global figure ($ 47.7-trillion), and tangible assets make up a small $96-billion of that. The rest constitute a massive wealth of $269-billion of disclosed and undisclosed intangible assets ($3-billion and $266-billion, respectively. (http://www.sme.in/Currentnews.aspx?NewsID=1832) These unreported intangible assets have also widened the gap between the book and market value of companies.

The review of literature\(^1\) shows that a number of studies have been conducted all over the world on voluntary intangible assets disclosure. However, to the best of the researcher’s knowledge only one study by Kamath (2008a) has been conducted in India. Kamath’s study also suffers from certain limitations like small sample size of only 30 companies, word count technique used for data collection and taking only one independent variable (i.e. size). Moreover in India there is dearth of literature on association between intangible assets disclosure practices and various corporate attributes. In addition to the above there is no comparative study conducted on intangible asset reporting practices of India (a developing country) with some other developed country. The necessity to address all the above inadequacies has motivated the need to carry out this study.

1.5 OBJECTIVES OF THE STUDY

This study has been undertaken with the main objective of examining the accounting and reporting of intangible assets by the selected companies in India and the UK. Following are the specific objectives of this study:

- 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.

\(^1\) For details, see chapter 2, Review of literature
• 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.

1.6 ORGANISATION OF THE STUDY

This study has been divided into eight chapters including this chapter. In chapter II, the issues emerging out of the literature relating to intangible assets disclosure have been analytically examined. This has helped the researcher in identifying the research gaps.

Database and methodology for the present study has been discussed in chapter III. Chapter IV is based on an in-depth comparison of major accounting standards {IAS-38 (IFRS), AS-26 (Indian GAAP), SFAS-142 (US GAAP), FRS-10 (UK GAAP) and ASBE-6 (Chinese GAAP)} dealing with intangible assets. Chapter V discusses the extent of intangible assets reporting both attribute-wise and company-wise at two point of time for the selected companies in India. Chapter VI examines the relationship between the corporate attributes and the level of intangible assets reporting in India.

Chapter VII deals with a comparative study of the level of intangible assets disclosure in India and UK. Chapter VIII summarises the present study with conclusion thereof. Bibliography and appendices have been laid down separately at the end.

1.7 LIMITATIONS OF THE STUDY

The present study suffers from the following limitations.

1. The study focuses only on annual reports.

2. Content analysis technique has been used for gathering intangible assets information. Subjective judgement involved in identifying and classifying the nature of reported intangible assets information cannot be ruled out.