

CHAPTER 1

OVERVIEW OF RESEARCH

1.0 INTRODUCTION

Business in the twenty-first century is characterised by continuous innovation, digital and communication technologies, network forms of organisation, and the prevalence of ‘soft’ and intangible factors (Lev and Zambon, 2003). For firms operating in competitive, global markets, intellectual capital (IC) is recognised as an integral part of a firm’s value-creating processes (e.g. Bukh, 2003; Holland, 2003) and is the key to building competitive advantage and creating significant shareholder value (e.g. Wiig, 1997; Van der Meer-Kooistra and Zijlstra, 2001; Tayles et al., 2007). It is evidenced by increasing investments in intangibles, such as human resources, information technology, research and development (R&D) and advertising (e.g. Webster, 1999). This has led to considerable growth in interest in IC within academic and practitioner communities (e.g. Petty and Guthrie, 2000; Blair and Wallman, 2001).

Definitions of IC vary. Stewart (1997: 67) characterises IC as ‘packaged useful knowledge’. Klein and Prusak (1994: 2) view IC as ‘intellectual material that has been formalized, captured and leveraged to produce a higher valued asset’. One of the most comprehensive definitions of IC provided by CIMA (2001: 2), is ‘the possession of knowledge and experience, professional knowledge and skills, good relationships, and technological capacities, which when applied will give organisations competitive advantage’. Three major IC components, although variously labelled, are human capital, structural capital and relational capital (e.g. Edvinsson and Sullivan, 1996; Sveiby, 1997; Meritum, 2002), which can be leveraged to create wealth.

Disclosure of IC, whether in annual reports or through other communication channels,

provides valuable information for investors as it helps reduce uncertainty concerning future prospects, and facilitates a more precise valuation of a firm (Bukh, 2003). Proponents of IC reporting contend that as the costs involved with intangible assets are either immediately expensed in the financial statements or arbitrarily amortised, they are not adequately reflected in the financial accounts, and thus the book value of firms is poorly associated with their market value (e.g. Amir and Lev, 1996; Francis and Schipper, 1999; Lev and Zarowin, 1999), as illustrated by the sizeable market-to-book ratios (e.g. Beattie and Thomson, 2005). This, in turn, gives rise to increasing information asymmetry between firms and users and greater agency problems (Aboody and Lev, 2000; Barth et al., 2001). Numerous studies have called for improvements in IC reporting (e.g. Lev, 2001; Mouritsen et al., 2001).

This study focuses on the external reporting of IC, termed 'IC disclosure'. This first chapter provides the foundation for the thesis. It addresses the significance of the study in terms of the contribution to knowledge with respect to IC disclosure practice in the context of the UK. The research objectives, related research questions, research methodology, and the scope of the research are explained. Summaries of the key findings of the research, definitions of key terms, and the structure of the thesis are also provided.

1.1 PROBLEM STATEMENT

The disclosure of information by firms has received increasing attention due to such factors as globalisation and the integration of capital markets, increased mobility of money and goods, growing competition, and the development of information technology (IT) and the Internet (Bukh et al., 2005). IC is at the centre of an information gap arising from the uncertainty in forecasting future economic activity (Wyatt, 2007). This uncertainty engages investors, and other information users of historical-cost based

financial statements, in a constant search for information from other sources to improve their forecasts and decisions (Guthrie, 2001; Wyatt, 2007). Various research reports (e.g. AICPA, 1994; FASB, 2001) and academic studies (e.g. Cañibano et al., 2000; Mouritsen et al., 2001) have called for greater disclosure of non-financial indicators of investment in intangible assets.

In response to these calls, a number of studies have investigated the level of IC disclosure in annual reports (e.g. Brennan, 2001; Bozzolan et al., 2003) and other media (e.g. García-Meca et al., 2005). Most of these studies have focused on European countries other than the UK. The Global Intangible Study 2006 documented that the UK ranks fourth in terms of the importance of intangibles, after Switzerland, India and the United States (IPA, 2006: 7), which makes it a relevant context for IC disclosure research. In addition, the UK is moving into a more knowledge-based economy (DIUS and BERR, 2007; Unerman, et al., 2007), consistent with the growing importance of knowledge-based industries to the global economy.¹ Figure 1.1 demonstrates the trends in value added by the manufacturing sector and the distribution and services sectors over the period between 1995 and 2007 (as a proportion of value added by all businesses in the UK each year).² As can be observed from the figure, the distribution and services sectors together account for an increasing proportion of total value added by business activities in the UK, and they have accounted for over 50% of total value added throughout the whole period. IC has been considered as an important driver for

¹ In many Western countries, the industrial economy has largely been superseded by the service economy, i.e. the economy has transformed from producing tangible goods to delivering knowledge solutions (Unerman, et al., 2007). This is evidenced by the information from the World Bank (2006, Table 4.2) that in 2004, service-based industries comprised over 68% of world GDP (up from 61% in 1990), while the goods-producing industries and the agriculture contributed 28% (down from 33% in 1990) and 4% (down from 6% in 1990) to world GDP respectively.

² Other sectors represent the value added by some relatively small sectors, such as agriculture, fisheries, construction and utilities. Each of these sectors comprise less than 5% of the total value added, except that construction ranges between 6.5% and 8% of the value added annually during the period shown in the figure. Hence, these sectors are not shown individually in the figure.

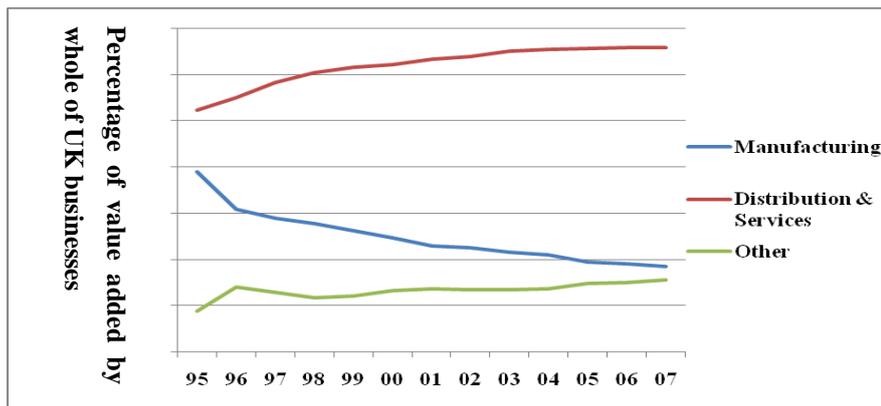
value creation in various business activities (e.g. Van der Meer-Kooistra and Zijlstra, 2001; Tayles et al., 2007), and the servicing sectors may be more reliant on such assets than the manufacturing sector. The figure demonstrates how important IC resources are to UK business and economy. Also, the UK's strong position in the knowledge-based economy can be illustrated by the fact that 81 per cent of research and development (R&D) investment by the 1,250 global businesses was dominated by companies registered in just five countries,³ one of which is the UK (DIUS and BERR, 2007).⁴ In 2006, the top 850 UK companies in R&D grew their R&D by nine per cent, more than double the rate of increase in 2005, while the 75 UK companies with the most R&D increased their investment by twelve per cent, beating the global average of ten per cent (DIUS and BERR, 2007). Narrative reporting was high on the agenda of the Accounting Standard Board (ASB) in the UK, which has a long history in the inclusion of narrative disclosures in the unaudited sections of corporate annual reports (Beattie et al., 2004a). As the majority of IC disclosures in corporate annual reports can be considered to be voluntary and the narrative reports are essential locations for such disclosures, the UK forms an interesting context for IC disclosure research.

It is somewhat surprising, therefore, to find that relatively few UK studies have been conducted, and that even fewer used large samples of firms. Sample sizes have ranged from one to thirty-one firms, making it difficult for meaningful cross-sectional analyses. In general, the picture of the IC disclosure practice of UK firms is unclear and requires further research.

³ The five countries are the USA, Japan, Germany, France and the UK.

⁴ It is argued in DIUS and BERR (2007) that there are well-established links between R&D growth and intensity and sales growth, wealth creation efficiency and market value, and companies regard investment in R&D as a key factor determining future success.

Figure 1.1 Trends in Value Added in the UK Economy



Source: based on data in ONS (2008)

Further, as suggested by various authors (e.g. Gibbins et al., 1990; Haniffa and Cooke 2002, 2005), variations in disclosure practices reflect the underlying factors that affect a firm's disclosure position. One problem in IC disclosure research is that while a considerable number of studies focus on examining the state of such disclosure in the annual report of firms from various countries, the empirical literature is generally silent about what determines such practices.

The relationship between corporate governance and IC disclosure practice is largely unexplored. Corporate governance has received substantial attention over the last decade or so. One reason for such growth in interest involves criticisms that the financial reporting function is unable to fulfil the information demands of various users (Macdonald and Beattie, 1993). The board of directors is at the heart of corporate communication (Holland, 2006a) and has primary responsibilities to communicate corporate performance and demonstrate accountability through different communication channels to information users for the purposes of aiding, influencing or changing their decision making (Haniffa, 1999).

Keenan and Aggestam (2001) argue that investor perceptions and judgements about the quality of a firm and its governance are, directly and indirectly, based on the firm's

adroit use of assets - including financial, physical-plant and IC - to create value. Corporate governance involves directing and influencing the development and management of a firm's IC as a system of business assets, and communicating to investors about the deployment and performance of such assets. Corporate governance structures are highly relevant to internal structures that activate the disclosure process (Gibbins et al., 1990); they involve establishing clear policies, guidelines and procedures to review both opportunistic and ritualistic corporate disclosures, including IC disclosure. Therefore, the structure of a firm's corporate governance, at least in part, determines a firm's capability to respond to changes in business and economic conditions and the demand for IC information by various stakeholders. Furthermore, the Smith Report (2003) in the UK identifies the role of audit committees as ensuring that the interests of shareholders are properly protected in relation to financial reporting and internal control. The report recommends audit committees to review significant financial reporting issues and judgments made in connection with the preparation of a firm's financial statements, interim reports, preliminary announcements and related formal statements, such as the Operating and Financial Review and the release of price sensitive information. As such, audit committees can be expected to have a significant impact on value-relevant information disclosure, of which IC forms a large element in many firms. Thus, a positive relationship between good corporate governance and the level of IC disclosure might be expected; however, this relationship has yet to be explored.

Various company characteristics have been evidenced by previous studies as influential factors on the extent of corporate disclosure (e.g. Chow and Wong-Boren, 1987; Cooke, 1991, 1993; Haniffa and Cooke, 2002, 2005; Brammer and Pavelin, 2006). The effect of company characteristics on IC disclosure practice has also been examined (e.g. Bozzolan, et al., 2003; Sujan and Abeysekera, 2007; Unerman et al.,

2007), however, focusing mainly on size and industry effects. The effect of other factors, such as profitability, listing age and auditor type, could also be of interest.

In addition to corporate governance factors and company characteristics, the impact of market factors on the level of IC disclosure is also unclear. Holland (2006a) suggests that communication between a firm's management and its information users is a two-way learning system. Not only do information users learn from the information provided by firms, but managers also learn from the market. Such knowledge then helps in formulating an appropriate disclosure strategy. This study argues that increased IC disclosure helps reduce information asymmetry and share price volatility, which also stimulates demand for the firm's shares. It is therefore relevant to explore the effects of 'hidden value' (reflected by the gap between the firm's market and book values), share price volatility and share turnover on the firm's IC disclosure position. This exploration will draw on information asymmetry, agency and signalling theories.

Gibbins et al. (1990) explore the disclosure process giving rise to disclosure outputs in response to internal and external stimuli. Examining market factors reflects the external impact, while corporate governance structure and company characteristics reflect the internal aspects influencing IC disclosure practices.

However, as can be observed, the majority of IC disclosure is voluntary. Factors that affect the extent of voluntary disclosure have been extensively examined by previous studies (e.g. Ho and Wong, 2001; Haniffa and Cooke, 2002; Mangena and Pike, 2005; Debreceeny and Rahman, 2005; Patelli and Prencipe, 2007). Some of these studies have also included IC items in their checklist (e.g. Ho and Wong, 2001; Haniffa and Cooke, 2002; Patelli and Prencipe, 2007). One may argue that if IC disclosure is voluntary, it would be reasonable to expect the same results to obtain, and therefore no need for another study of factors that affect IC disclosure. The expectation seems natural, but

the argument that corporate governance structure, company characteristics and market factors have an impact on voluntary disclosures still needs to be extended to IC disclosure. The development of the literature is not yet at a stage where one can say for certain that corporate governance structure, company characteristics and market factors will inevitably have an impact on IC disclosure. The present study is well suited to test whether the impact of these factors on voluntary disclosure reaches IC disclosure.

In addition, Beattie and Thomson (2007) argue that many of the content analysis research methods adopted in prior studies for IC disclosure measurement lack transparency, specificity, uniformity and rigour, and that these deficiencies may give rise to misleading evidence. They further argue that given the depth and breadth of the IC concept evident in the literature and the subjectivity involved in constructing operational definitions for IC components, it is essential that the details of the content analysis method used are transparent. Greater transparency allows the clarification of researchers' understanding of the IC concept, allows findings to be interpreted, allows decisions of whether to make comparisons (or not) across studies to be taken, allows replication, and assists in the development of shared meanings. In addition, Beattie et al. (2004b) call for research effort to be devoted to developing new ways of documenting disclosure practices and exploring possible measurement proxies.

In summary, there are still serious gaps in the literature. In particular, there is a need for more research into IC disclosure practices of UK firms that 1) offers greater transparency in how, what and where IC information is captured in the annual report, 2) employs more rigorous measurement of IC disclosure, and 3) explores more thoroughly than hitherto possible internal and external determinants of IC disclosure practices.

1.2 RESEARCH OBJECTIVES AND QUESTIONS

The research objectives of this study are four-fold:

- 1) to extend our understanding of IC disclosure activity in UK firms;
- 2) to investigate the possible determinants of IC disclosure practice in annual reports across UK firms from the three perspectives of corporate governance structure, company characteristics, and market factors, using a large database;
- 3) to explore and compare a variety of ways of measuring IC disclosure; and
- 4) to move the focus of IC disclosure studies to theory aspect.

In order to address these research objectives, the following research questions are examined in the study:

1. To what extent do London Stock Exchange (LSE) listed UK firms provide IC information in their annual reports?
2. How is IC information disclosed in the annual reports of the sampled firms?
 - a. Do firms use the IC terms typically used in the academic literature?
 - b. What are the major human, structural, and relational capital items disclosed?
 - c. In what format (i.e. text, number and graphs/pictures) is IC information presented in the annual report?
 - d. In which sections of the annual report is IC information disclosed?
3. What are the possible determinants of IC disclosure?
 - a. What relationship exists between the level of IC disclosure and certain corporate governance factors, company characteristics, and market factors?
 - b. Does the same relationship hold at IC subcategory level, i.e. for human capital, structural capital, and relational capital disclosures?
 - c. Is the presentational format of IC disclosure associated with corporate governance factors, company characteristics and market factors?

- d. What theories help explain the identified relations between IC disclosure practices and the explanatory variables?
4. How can the level of IC disclosure be more rigorously measured?

1.3 IMPORTANCE OF THE STUDY

Although the literature of IC disclosure studies has flourished over the last few years, with a few of the studies examining the possible determinants of the level of IC disclosure, this study differs from those studies in the following respects:

- It provides information users, preparers, regulatory bodies and academics with a state-of-the-art understanding of IC disclosure practices in the annual reports of 100 listed UK firms. The findings of this study can be used in future studies to evaluate the differences in IC disclosure practice across countries or industries, or to establish over time changes in IC disclosure practice.
- It provides transparency in the content analysis process applied in the study. This is of use for future research using content analysis, which enables replication of the study and comparison of results.
- It employs more rigorous measurements of IC disclosure, greater specificity of disclosure in terms of the location and presentational format of disclosure, and a more detailed IC research framework. These can be usefully applied by other studies to enhance the understanding of IC disclosure practices of firms.
- It contributes to the growing body of knowledge by exploring the relationship between IC disclosure and corporate governance structure, company characteristics and market factors, which extends previous in-depth studies on corporate disclosure practices (e.g. Gibbins et al., 1990; Chaminade and Roberts, 2003; Habersam and Piper, 2003; Roslender and Fincham, 2004). It helps

shareholders and other groups of information users as well as the regulatory bodies to identify factors that may encourage IC disclosure in the annual report of firms.

To summarise, IC is still a relatively new field for research. Thus, research findings on IC can make a significant contribution to new knowledge (Petty and Guthrie, 1999). Examining the level of IC disclosure and its determinants in the annual reports of listed UK firms on a cross-sectional basis will provide additional insights into the corporate reporting practices of a developed nation where greater investor protection is provided. The study contributes to the further advancement of the state of knowledge in relation to IC disclosure both empirically and methodologically.

1.4 SCOPE OF THE STUDY

The study may be viewed as an exploratory, descriptive and positive study of IC disclosure and its determinants. It is a cross-sectional, country specific study of listed firms in a developed country with an active stock market. The review of the IC disclosure literature identified the lack of such a UK study.

The study focuses on firms listed on the main board of the LSE as these are of interest to various stakeholder groups, are subject to more rules and regulations, offer greater investor protection, and are a rich source of information. Unlisted firms are not included due to different disclosure requirements. In addition, IC disclosure practice is considered to be more common in larger firms, which are normally listed firms. Furthermore, annual reports are generally more easily accessible for listed firms.

It is important to note that this study is biased towards IC-intensive sectors, i.e. biotechnology & pharmaceuticals, IT, media & publishing, business services, telecommunication services, banks & insurance, and food production & beverage. It is not the objective of this study to provide a comparison of IC disclosure practices across all industries or to attempt to offer findings representative of the whole stock market.

The sample cannot claim to represent the IC disclosure practices of all listed UK firms. Furthermore, in this study, the analysis of the level of IC disclosure is limited to disclosures in annual reports within one time window (financial year ends between March 2004 and February 2005). There are various other channels that firms use for communication with information users, such as interim reports, corporate social responsibility reports, presentations, webcasts, and corporate websites. However, in this study, annual reports are considered the most important and commonly used media channel for firms to communicate with various groups of information users. The IC disclosure checklist developed in this study is for general purpose reporting and does not focus on any particular user group.

1.5 RESEARCH METHODOLOGY

A detailed specification of the research methods and framework of this study is provided in Chapter 4. This section summarises briefly the research methodology applied in the study. Figure 1.2 provides an overview of the research process.

The first phase in the research process is the identification of the topic of interest. The second phase of the research comprises mainly the literature review and the identification of interesting issues for research. During the second phase, the research problem, questions, and theories are identified. The explanatory variables and the IC items in the preliminary research instrument are also identified.

The third phase is the methodology phase, i.e. the selection of the appropriate research methods, procedures and instruments, sampling, and data collection. A summary of the research methods applied in this study is shown in Figure 1.3, with detailed discussion provided in Chapter 4. Content analysis was selected to analyse the sampled annual reports. The preliminary list of IC items identified during the second research phase was pilot tested, evaluated by two other researchers, and then modified. The finalised

research instrument is a 183 format item checklist comprising 61 IC items, grouped into three categories, in three presentational formats. The unit of analysis was selected and coding rules were defined.

Figure 1.2 Overview of the Research Process

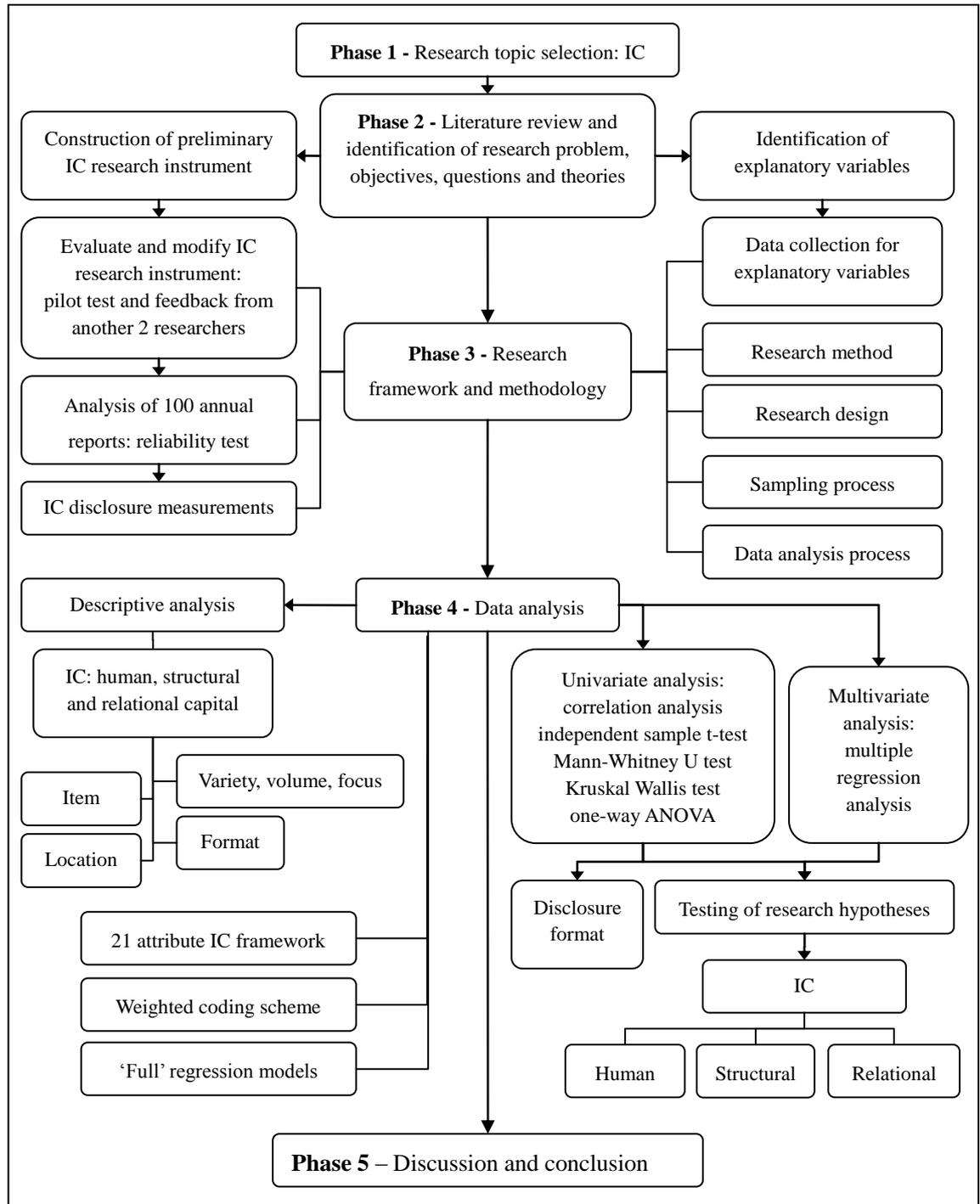
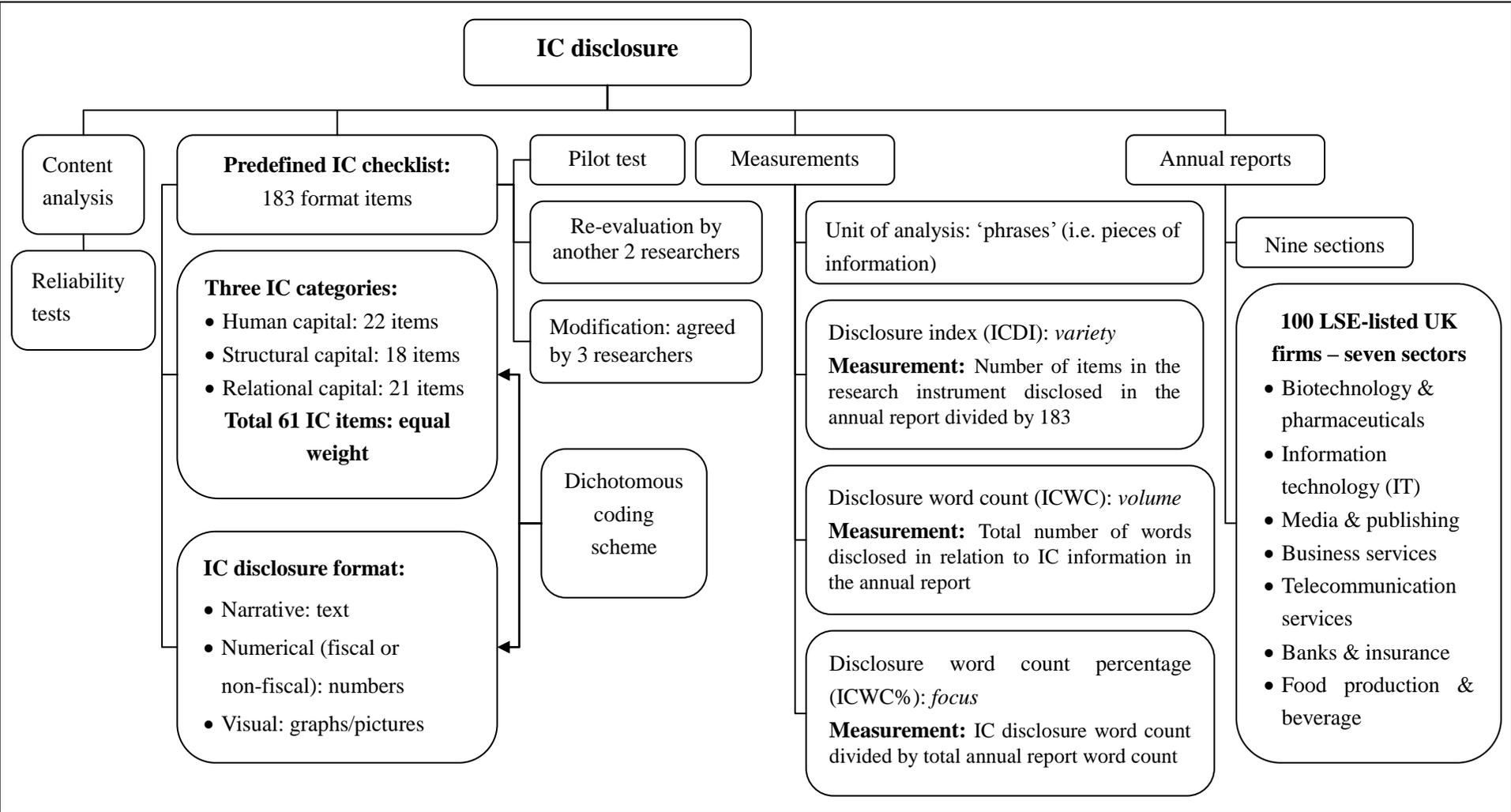


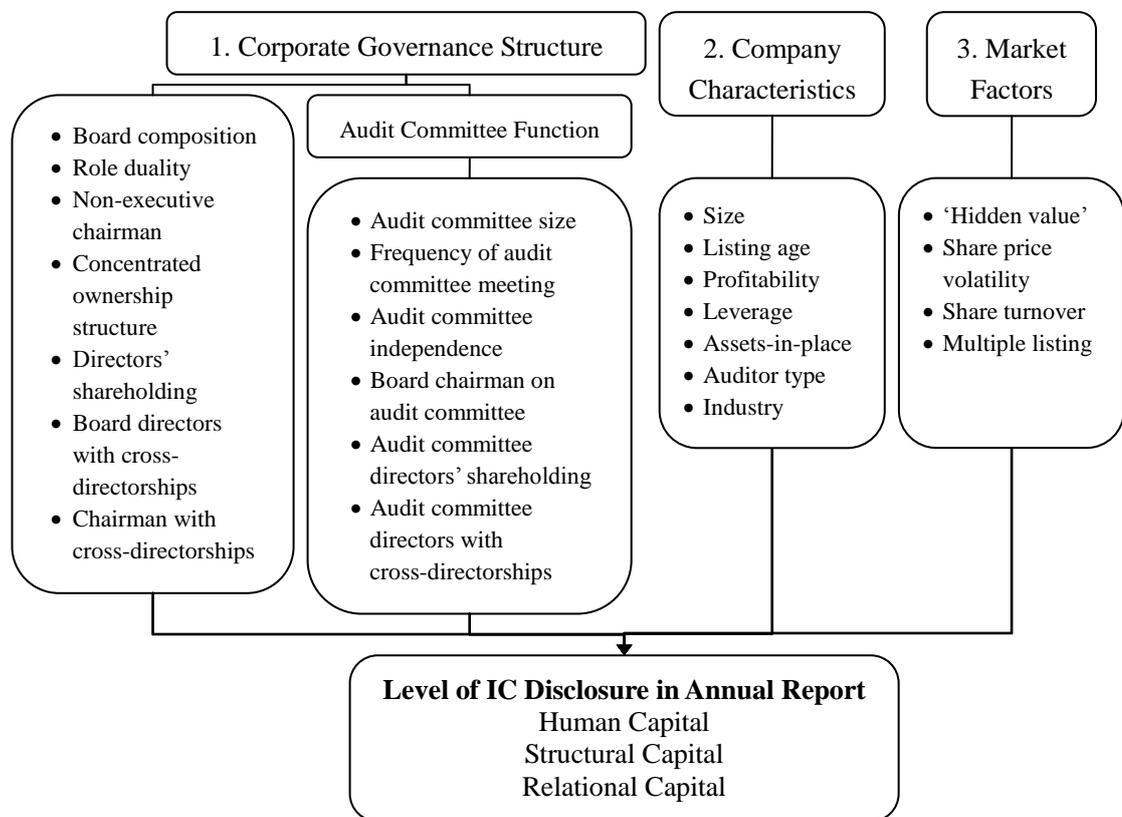
Figure 1.3 Summary of Research Method



A sample of 100 annual reports of LSE-listed UK firms from seven industry sectors considered to be IC-intensive was collected.⁵ Based on the designed research instrument, the coding of the annual reports for IC information was conducted applying a dichotomous coding scheme, using ‘phrases’ as the basis of coding, for each sample firm. IC disclosure was measured from three perspectives: 1) variety, measured by disclosure index; 2) volume, measured by word count; and 3) focus, measured by IC word count as a proportion of total annual report word count. The disclosure measures were also computed for human capital, structural capital and relational capital.

The research design of this study is shown in Figure 1.4, and is also discussed in Chapter 4. Data for the three groups of explanatory variables listed in Figure 1.4 were collected.

Figure 1.4 Research Design and Independent Variables Examined



⁵ A list of 100 sampled firms is provided in Appendix 1.

Phase four of this study addresses the data analysis and discussion of the key findings. Descriptive analyses of the level of IC disclosure were performed to illustrate the ‘shape’ of such disclosure captured in the study. The three measures of disclosure were then used to evaluate the relationship between the selected explanatory variables and the level of IC disclosure at both overall and subcategory levels. The three main hypotheses proposed are shown as follows:

H01: The level of IC disclosure is associated with a number of corporate governance factors, ceteris paribus.

H02: The level of IC disclosure is associated with a number of company characteristics, ceteris paribus.

H03: The level of IC disclosure is associated with a number of market factors, ceteris paribus.

To test the proposed hypotheses, both univariate and multivariate analyses were conducted. Multiple linear regression analysis was conducted on regression models exploring corporate governance factors, audit committee characteristics and market factors separately. Analysis was also conducted on ‘full’ regression models examining corporate governance factors (including audit committee characteristics), company characteristics and market factors together. Univariate analysis was also performed to examine the relationship between the explanatory variables and the level of IC disclosure based on the presentational format.

A comparison of results produced by the research instrument developed in this study with those based on one of the most frequently used IC frameworks was also conducted. In addition, a comparison of results produced by the weighted and unweighted coding schemes was provided. This study draws on a combination of both quantitative and qualitative research approaches; the development of the IC research instrument and the reading and coding of IC information from annual reports seek to quantify data that is both qualitative and quantitative, while the data captured are

analysed quantitatively to test the proposed hypotheses. Phase 5 discusses the results and concludes the study.

1.6 SUMMARY OF KEY FINDINGS

This section provides a brief review of the key findings of the study.

1. The UK firms sampled provide considerable IC information in their annual reports. On average, twenty-six per cent of annual report disclosures were devoted to IC by the sample UK firms.

2. Disclosures for all 61 IC items in the research instrument were identified but to various extents across firms, mainly in text form, with popular use of numerical disclosures, while the use of graphs/pictures for many IC items remains low.

- IC information is captured in virtually all sections of the annual report and is most concentrated in the Operating and Financial Review section.
- IC terms typically used in the academic literature do not feature in the annual reports of the sample firms.

3. Certain corporate governance factors, including audit committee characteristics, company characteristics and market factors are related to the level of IC disclosure, supporting the main hypotheses proposed (H01, H02 and H03), while their associations with the three measures of IC disclosure and the level of human, structural and relational capital disclosures vary.

4. Certain corporate governance factors (including audit committee characteristics), company characteristics and market factors are related to the presentational format of IC disclosure, especially text and numerical formats.

5. The more detailed IC framework used in this study is more effective in helping to identify factors that affect IC disclosure (which otherwise may be hidden away) than the less detailed framework used in previous studies for the purpose of examining IC

disclosure practice and its determinants at a detailed level.

6. The extra complexity added by applying a weighted scoring approach is unnecessary as it produces similar results to those of a dichotomous coding scheme.

1.7 FREQUENTLY USED TERMS

A number of key terms used in this study are described in this section for the purpose of clarity and consistency in their use. Detailed definitions and explanations of the terms can be found in other chapters.

Intellectual capital: the possession of knowledge and experience, professional knowledge and skills, good relationships, and technological capacities, which when applied will give organisations competitive advantage (CIMA, 2001: 2). It is mainly comprised of three categories:

- **Human capital** is the ‘thinking and doing’ capital, which includes, for example, the knowledge, skills, know-how, experience, and creativity of employees. It is what the employees bring and take with them when they join or leave the firm. It cannot be owned by firms (Edvinsson, 1997).
- **Structural capital** represents the pool of knowledge that remains with the firm at the end of work, after employees have left (Stewart, 1997). It comprises the organisational routines, procedures, systems, cultures, databases, hardware, software, technologies, patents, licences, trademark, copyrights, etc.
- **Relational capital** refers to all resources linked to the external relationships of the firm such as customers, suppliers or R&D partners. These market-based intangibles create a competitive position in the marketplace.

Intellectual capital disclosure: is defined as ‘external reporting intended to meet the information needs common to users who are unable to command the preparation of

reports about intellectual capital tailored so as to satisfy, specifically, all of their information needs' (Abeysekera and Guthrie, 2002).

Annual report: the document that firms use for information dissemination on an annual basis, with a fundamental objective to communicate economic measurements of and information about the resources and performance of the reporting entity to those having reasonable rights to such information (Parker, 1982).

Content analysis: a 'technique for gathering data that consists of codifying qualitative and quantitative information, in anecdotal and literary form, into categories in order to derive quantitative scales of varying levels of complexity' (Abbott and Monsen, 1979: 504).

Intellectual capital items: the items in the designed research instrument, which are considered to be constituents of IC.

Format items: IC items in the research instrument in three presentational formats.

Level of disclosure: the extent of IC information disclosed in the annual report based on three measures:

- **Variety** - measured by disclosure index, which is suitable 'to gain insight into the level of information disclosed by companies' (Cooke and Wallace, 1989: 94).
- **Volume** - measured by word count. Words are indicated as the smallest unit of measurement for analysis and can be expected to provide the maximum robustness to the study in assessing the quantity of disclosure (Zéghal and Ahmed, 1990).
- **Focus** - measured by the number of words related to IC being disclosed over the total number of words in the annual report.

Corporate governance factors: aspects of corporate governance structure that may influence IC disclosure practice in the annual report.

Company characteristics: attributes of a company that may impact on the level of IC disclosure.

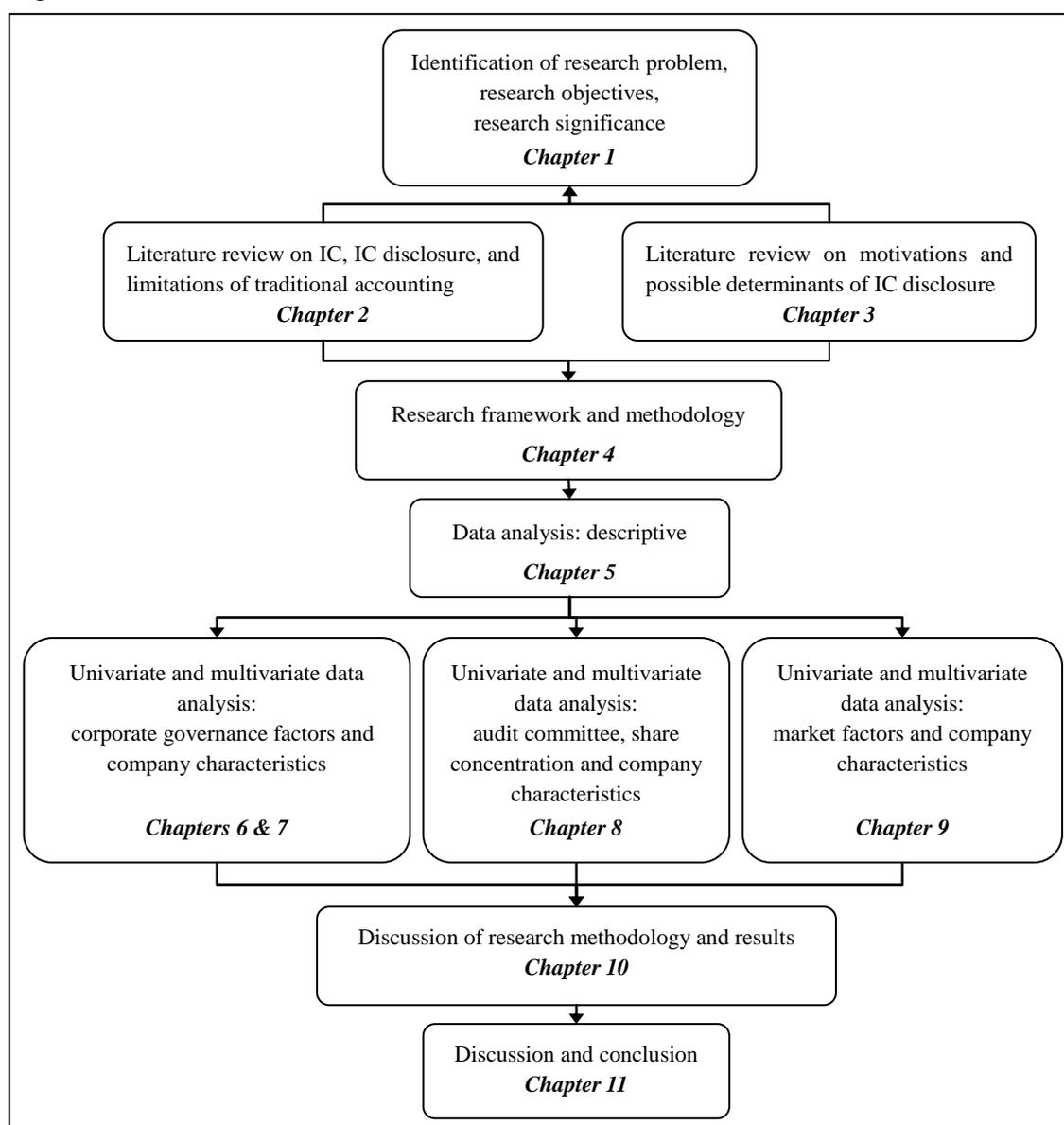
Market factors: exogenous stock market variables that are expected to have impact on the level of IC disclosure.

1.8 STRUCTURE OF THE THESIS

The discussion of this study is structured into eleven chapters, as shown in Figure 1.5.

After this introductory chapter, the rest of the thesis is organised as follows.

Figure 1.5 Overview of Thesis Structure



Chapter 2 provides a literature review on IC and IC disclosure. The review focuses on three main aspects: 1) the concept of IC, 2) the limitations of traditional accounting for IC reporting, and 3) the empirical IC disclosure studies to date, from which some of the research opportunities for this study are identified.

Chapter 3 provides a review on the motivations and possible determinants of IC disclosure. The two objectives of the chapter are to provide 1) a review of the theoretical underpinnings of external IC reporting, and 2) a review of the factors (i.e. corporate governance, company characteristics and market factors) that could influence IC disclosure practice. Together with Chapter 2, the chapter builds the foundation for the study.

Chapter 4 presents the research methodological issues. It explains the research methods undertaken and the choice of statistical analysis methods. A review of the content analysis research method and its limitations, and the rationale for the choice of annual reports as the research subject is provided. Approaches of IC disclosure measurement are discussed. It also presents the development of the IC research instrument, sampling procedure, research design, proposed research hypotheses (detailed discussions of hypotheses development are provided in Chapters 6, 8 and 9), and data collection methods.

Chapter 5 focuses on descriptive statistics. The chapter provides a general understanding of the 'shape' of IC disclosure practices in the sampled annual reports from five perspectives: 1) three disclosure measures, 2) three main IC categories, 3) 61 IC items, 4) three presentational formats, and 5) location. Descriptive statistics of the explanatory variables are also provided.

Chapter 6 reports the empirical findings on the relationship between the explanatory variables of corporate governance structure and company characteristics, and the level

of IC disclosure at an overall level. It also provides a discussion of the development of the hypotheses tested in the chapter.

Chapter 7 provides the analysis of the relationship between the explanatory variables examined in Chapter 6 and the level of IC disclosure at subcategory level and by presentational format.

Chapter 8 presents and discusses the empirical results based on statistical analyses of the relationship between audit committee, share concentration and company characteristics and the level of IC disclosure, at overall and subcategory levels and by presentational format. A discussion of the development of the hypotheses tested in the chapter is also provided.

Chapter 9 provides the empirical findings on the relationship between market factors and some company characteristics and the level of IC disclosure, at overall and subcategory levels and by presentational format. The development of the hypotheses tested in the chapter is provided.

Chapter 10 deals with research method issues relating to the IC research instrument, measurement of IC disclosure, and alternative regression models. The chapter, based on the same IC information captured, re-examines the relationship between a number of corporate governance factors, market factors and company characteristics and the level of IC disclosure measured by disclosure index based on 1) an IC framework commonly used by prior studies and 2) a weighted scoring approach, using statistical analysis. These results are compared with the findings of the current study. Finally, the chapter seeks to provide evidence for the validity of the findings reported in the results chapters, i.e. Chapters 6-9. Two ‘full’ regression models were constructed with the inclusion of important variables from all three groups of independent variables, i.e.

corporate governance factors (including audit committee characteristics), company characteristics and market factors.

Chapter 11 provides a general conclusion. The chapter discusses empirical findings relating to the research questions and hypotheses. It also addresses the implications for policy makers, firms and investors. Limitations of the study are discussed and recommendations for future research are put forward.