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# Voluntary Disclosure of Intangibles among Australian Publicly Listed Companies

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*This study examines the disclosure of intangibles in the annual reports and the prospectuses to establish evidence that established firms tend to increase disclosure of intangibles information to reduce information asymmetry when they intend to issue equity. It is prompted by the fact that traditional financial reporting has been criticised for not being able to capture the intangibles value drivers in the new economy such as knowledge assets, human resources and customer satisfaction. The literature links the disclosure of information to cost of capital by providing evidence that managers are more forthcoming with voluntary disclosure when they frequently access the capital market. The evidence from the preliminary testing of the annual reports and prospectuses support the hypothesis that companies disclose a variety of intangibles information. However, there are no substantial statistics or any study that links the relationship between annual reports disclosure and disclosure of intangibles in the prospectus. This paper is presented as work in progress but it is hoped that the extended data collection and analysis will add to the current body of literature.*

Field of research: Accounting

## 1. Introduction

Corporations have put a significant amount of investment into intangibles such as human resources, information technology and research and development (R&D) to remain competitive and to ensure future viability (Cañibano, et al., 2000). The increasing level of business complexity, coupled with the emergence of intangibles-intensive companies has shown that corporations rely on intangibles resources compared to tangible resources (Sullivan, 2000; Lev, 2001). There exists a debate that the new-economy firms place more reliance on intangible resources compared to the old economy firms (Bukh, et al., 2005) which regard hard assets such as capital and land as the most important factors of production (Drucker, 1993; Firer and Williams, 2003). As a result, traditional financial reporting has been criticised for not being able to capture the value drivers in the new economy such as knowledge assets, human resources and customer satisfaction (Bontis, 1998; Lev and Zarowin, 1999; Cañibano, et al., 2000; Jenkins and Upton, 2001; Firer and Williams, 2003; Wyatt, 2005; Singh and Zahn, 2008). Despite intangibles and non-financial information such as human resources and customer satisfaction being value-relevant, the current financial reporting framework limits the recognition of this information as an asset because of the inability to meet the recognition criteria of an asset.

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In Australia, the accounting standards have changed and the adoption of AIFRS in 2005 makes intangibles less visible in the financial statements because firms are no longer permitted to recognise certain internally developed intangibles. So companies are moving towards voluntary disclosure whereby managers tend to provide information deemed relevant to the users of annual reports in excess of mandatory requirement (Meek, et al., 1995) and this includes information on intangibles. The motivation for voluntary disclosure has been the focus of research attention. According to Healy and Palepu (2001) managerial participation in voluntary disclosure can be associated with the capital market transaction hypothesis; whereby managers tend to increase disclosure of information to reduce information risk and, hence, reduce information asymmetry, when they intend to issue equity, debt and for other strategic intent.

In the market for a firm's securities, the situation of information asymmetry leads to the adverse selection problem because there is asymmetric information between managers of the firm and investors about the value of the firm (Hughes, 1986). Accordingly, the effect of the adverse selection problem is manifest in reduced levels of liquidity for the firm's securities (Leuz and Verrecchia, 2000). Intangibles-intensive companies may find it difficult to get favourable funding conditions because a lack of information about investment in intangibles could lead to an underestimation of future earnings. It is also difficult to measure cost and assign benefits to intangibles (Meer-Kooistra and Zijlstra, 2001; Holland, 2003). The literature links the disclosure of information to cost of capital by examining whether managers are more forthcoming with voluntary information when they access the capital market. The positive association between the firm's tendencies to access capital markets and to disclose additional information suggests that firms attempt to mitigate the potential consequences of information asymmetry through voluntary disclosure.

The term intangibles used throughout this paper represents intangibles information disclosed in the annual reports and the prospectus but not recognised in the financial statements because it does not meet the recognition criteria. Examples of these intangibles include publishing titles, customer lists, human resources, business processes and company strategy. Accordingly, voluntary disclosure refers to information in excess of requirements that represent free choices of company management to provide information deemed relevant to the decision needs of users of annual reports. The disclosure of intangibles can be located in various sections of annual reports, except the financial statements and the notes to the account, whereas the disclosure in the prospectus is the entire prospectus. The remainder of this paper is organised as follows. The next section outlines the literature associated with voluntary disclosure of intangibles and the capital market consequences, particularly when firms have equity offerings. This is followed in Section 3 with the methodology and the proposed model. The result of the preliminary testing is discussed in Section 4. Discussion and conclusions are drawn in Section 5.

# 2. Literature review

## 2.1 Accounting for intangibles

The appropriate accounting treatment for intangible assets has been a long-standing item on the agenda of Australian standard setters (Godfrey, 2001). Prior to 2005, under Australian Generally Accepted Accounting Principles (AGAAP), internally generated goodwill was not recognised but other identifiable intangibles could be recognised as acquired or as they were internally generated. The purchased goodwill was capitalised at a measure that was the difference between the prices paid to acquire a company and the fair value of its net identifiable assets which was then amortised using the straight-line method over 40 years or less.

In July 2004, the Australian Accounting Standards Board (AASB) formally pronounced the Australian equivalents of International Financial Reporting Standards (AIFRS) that Australian firms must adopt from 1 January 2005. The adoption of AIFRS fundamentally changed the Australian accounting practices for intangible assets (Chalmers and Godfrey, 2006). Essentially, firms are no longer permitted to recognise certain internally developed intangibles and goodwill amortisation expense is now replaced by the impairment loss test. Many recognised internally generated identifiable intangibles must be derecognised and research expenditure must be expensed as incurred. Further, certain internally generated intangibles can no longer be capitalised.

Specifically, AIFRS prescribes the recognition, measurement and disclosures applicable to intangible assets which are not dealt with specifically in another standard. An intangible asset is defined as an identifiable non-monetary asset without physical substance. In addition, to meet the definition of an intangible asset, an asset must be separately identifiable and the entity must have control over the future economic benefits to be generated by the asset (AASB 138).

AASB 138 further prescribed that an intangible asset shall be recognised if it is probable that the expected future economic benefits that are attributable to the asset will flow to the entity and the cost of the asset can be measured reliably. The Standard specifically prohibits the recognition of internally generated intangible assets such as brands, mastheads, publishing titles, customer lists and intangible assets arising from research (or from the research phase of an internal project). An intangible asset arising from development (or from the development phase of an internal project) can be recognised if specific conditions can be satisfied.

As a result, the information relating to identifiable internally generated intangible is not reflected in the financial statements being excluded because of the inability to meet the recognition criteria. Besides, the prescribed treatment becomes more restrictive over time (Chalmers, et al., 2008). The adoption of AIFRS has also

resulted in internally generated intangible assets being less visible in the financial statements. This means that while companies realise the importance of intangibles in their value-creation process, they are not allowed by the accounting standards to reflect the information in the financial statements. The lack of information on intangibles in the financial statements has therefore contributed to the decline of the usefulness of the financial statements.

It has been argued long enough that there is a 'disconnect' between information provided in the financial statements and the information needs of investors and creditors in the new economy (Upton, 2001). Therefore, it has been agreed that current accounting standards are not compatible with the ever-increasing importance of intangibles in the new economy. As a result, more companies attempt to make those intangibles visible by reporting them outside financial statements, voluntarily.

It can be argued that the disclosure behaviour of intangibles is the discretionary action intended to signal hidden resources to the market. Companies make more intangible investment to keep up with the new economy because the value of corporations no longer relies on the production of goods, but the creation and utilisation of intangibles. For firms with intangible resources, disclosure of additional intangibles information indicates that they are having new investment opportunities and they wish to highlight certain favourable aspects of those investments, especially in the event of equity offerings.

## 2.2 Intangibles disclosure practice

Many researchers have attempted to study the content of annual reports of companies to measure the extent of intangibles disclosure among companies across several countries. The authors devised metrics or indicators to capture types of intangibles information disclosed by companies. In most cases, research provides an overview of intangibles reporting practice in different regions over time. Guthrie and Petty (2000) devised a 24-item disclosure index to capture what and how much intangibles information is disclosed by Australian firms in their annual reports. They found that information such as management philosophy, corporate culture, patents and employee competence are poorly understood, inadequately identified and inefficiently managed and not reported in the annual reports within a consistent framework. Brennan (2001) examined Irish knowledge-based companies to see whether there is a difference in their market and book values and the extent to which companies address the difference in terms of voluntary disclosure of intangibles and found that intangibles information was rarely referred to in the annual reports and most reported items were also in qualitative form. Until recently, there are many studies which attempt to explain the nature and extent of intangibles in annual reports. Steenkamp (2007) found that most New Zealand firms reported more pictures in the narrative sections of their annual reports and New Zealand firms do consider intangible resources as important value drivers in the value-creation process and since these resources

are not recognised in the financial statements, these companies voluntarily report the information in narrative sections.

In addition, there are studies that provide association between the level of disclosure and various factors such as firm's characteristics. Besides traditional factors such as firm size, listing status, market-to-book ratio and ownership concentration (Williams, 2001; Garcia-Meca, et al., 2005; Oliveira, et al., 2006), Bozzolan et al (2003) found that high-technology firms disclose more intangibles information compared to their low-technology counterparts. Besides the traditional factors and the industry type, Cerbioni and Parbonetti (2007) extend the literature by examining the level of intangibles disclosure and corporate governance factors. They found that board size, role duality of the CEO and the Chairperson and also board structure are negatively associated with the level of intangibles disclosure but as the percentage of independent directors increased, voluntary disclosure increased.

However, studies that examined content of intangibles in the prospectus have been limited. Bukh et al (2005) examined the level of intangibles disclosure in Danish IPO prospectuses and found that intangibles-intensive companies disclose more information with the intention to reduce the cost of capital and to facilitate the capital market's valuation analyses. Singh and Zahn (2008) studied the level of intangibles disclosure in the IPO prospectus and found that the disclosure level increased in 1997-2006. They also found that the level of disclosure is positively associated with ownership retention. Hence, it can be argued that firms consistently provide additional information both in their annual reports and prospectuses to mitigate the problem of information asymmetry, which is discussed next.

## 2.3 Information asymmetry and the capital market consequences

In the capital market, the situation of asymmetric information arises when managers have significant information compared to outside investors. Even in an efficient market, managers still have superior information about their firms' future performance compared to investors. The issue of information asymmetry is important because in some cases, opportunistic management might have exploited the information asymmetry situation as a reason to engage in fraudulent behaviour such as accounting manipulations or earnings management for their own purposes. Information asymmetry might also cause investors with less information to take defensive measures such as withdrawal from the capital market (Wolk et al., 2004). Therefore, to mitigate the issue of information asymmetry Diamond (1985) and Healy and Palepu (1993) suggested voluntary disclosure of additional relevant and credible information by managers.

Theory holds that since disclosure reduces information asymmetry between firms' insiders and outsiders it will, in turn, reduce the cost of capital, whereby cost of equity capital is the minimum rate of return equity investors require for

providing capital to the firm (Diamond and Verrecchia, 1991; Healy, et al., 1999; Zhang, 2001; Botosan, 2006). Using self-constructed indices to measure firms' general voluntary disclosure levels, Botosan (1997) finds no significant relationship between cost of capital and disclosure level, controlling for firm size and market beta. However, the negative expected relationship between disclosures and the cost of equity capital does hold for firms with low analyst following. She argued that additional disclosure lowers the information risks and, hence, lowers the cost of equity capital for these firms. This view is supported by Richardson and Welker (2001) and Botosan and Plumlee (2002) that there exists a negative association between annual reports disclosure level and cost of equity capital because investors prefer securities with low estimation risk, low transaction cost and/or less information asymmetry (Botosan, 2006). As the demand for this type of security is greater, the share prices are higher and the cost of capital is lower.

Prior literature suggests that firms investing heavily in internally developed intangibles tend to experience significant information asymmetry (Aboody and Lev, 2000; Gu and Lev, 2004; Liao, 2008; Singh and Zahn, 2008). Aboody and Lev (2000) argued that R&D-intensive firms tend to experience larger information asymmetry because it is difficult for investors to assess the investments in R&D and to value the firm because of the uniqueness of the investment. Chan et al (2001) argued that lack of disclosure of intangibles information especially for intangibles-intensive firms increases the degree of uncertainty in valuing the firm. Therefore, Jones (2007) and Gerpott et al (2008) claimed that managers of intangibles-intensive companies attempt to reduce uncertainty about future operations through disclosure of intangibles information such as customers and investor relations. Narayanan et al (2000) also argued that the increase in disclosure of information influences investors' decisions concerning the value of the firm because increased disclosure increases an investor's knowledge about the firm and, hence, reduces the information asymmetry.

In the context of capital-raising, there appears to be a general consensus that information asymmetry exists between investors and the issuers of equity about the value of the security (Hughes, 1986). Accordingly, empirical evidence suggests that managers tend to increase disclosure of information when they are offering equity or have other strategic intent to reduce information risk and, hence, reduce the information asymmetry (Myers and Majluf, 1984; Healy and Palepu, 1993; Lang and Lundholm, 1993; Lang and Lundholm, 2000). The literature links the disclosure of information to cost of capital by examining whether managers are more forthcoming with voluntary information when they access the capital market. Based on the frequency of management earnings forecasts during initial public offerings (IPO), Ruland, Tung and George (1990) and Frankel et al. (1995) found that managers accessing the capital markets provide more frequent disclosure of earnings forecasts in the prospectus as the disclosures enhance the ability to attract new capital. Marquardt and Wiedman (1998) documented a positive association between managerial participation and voluntary disclosure of

earnings forecasts prior to the registration of the offering. Similarly, Lang and Lundholm (2000) found that firms experience an increase in share price prior to the equity offerings when they increase their level of voluntary disclosure. In this respect, equity offerings seem to motivate managers to disclose additional information. The positive association between the firm's tendencies to access capital markets and to disclose additional information suggests that firms attempt to mitigate the potential consequences of information asymmetry through voluntary disclosure.

Drawing on signalling theory, this paper attempts to provide evidence that established companies are willing to provide information about employee competence, company reputation, business process and organisational infrastructure to highlight certain favourable aspects of their investment in intangibles. It is expected that companies will disclose relevant information on intangibles in their annual reports prior to capital-raising to signal their hidden resources and will subsequently disclose the information in the prospectus during the equity offerings. It is also a focus of this study to assess the disclosure of intangibles in both annual reports and prospectuses to establish the link between the two whereby it is posited that firm's disclosure behaviour of intangibles in the prospectus acts as complementary disclosure in addition to what has been disclosed in the annual report prior to the issuance of equity. There is no study that attempts to link the disclosure of intangibles information in annual reports and prospectus or any substantial statistics about the disclosure level and its relationship.

Combining with the additional assumption that the benefits of a lower cost of capital are greater for firms that use external financing more frequently, it is expected that companies with equity offerings provide additional disclosure compared to their non-equity raiser counterparts. Besides, it is important to assess whether managers have their own preferences in disclosing intangibles information. As Murray et al (2006) noted, information released voluntarily can be a powerful indicator of performance and more likely to represent a signal to markets. So, managers have the choice to provide additional information to bridge the information gap between them and the investors that will subsequently lower the cost of capital.

In the next section the proposed model, the possible variables and the preliminary testing of the annual reports and prospectuses are discussed.

## 3. The Methodology and Model

## 3.1 Conceptual model

This section provides the conceptual model, which is derived from the review of the literature. It is a natural consequence from the literature that companies might

signal relevant and valuable information to the market, especially when they have equity offerings.

**Figure 1: Conceptual model**

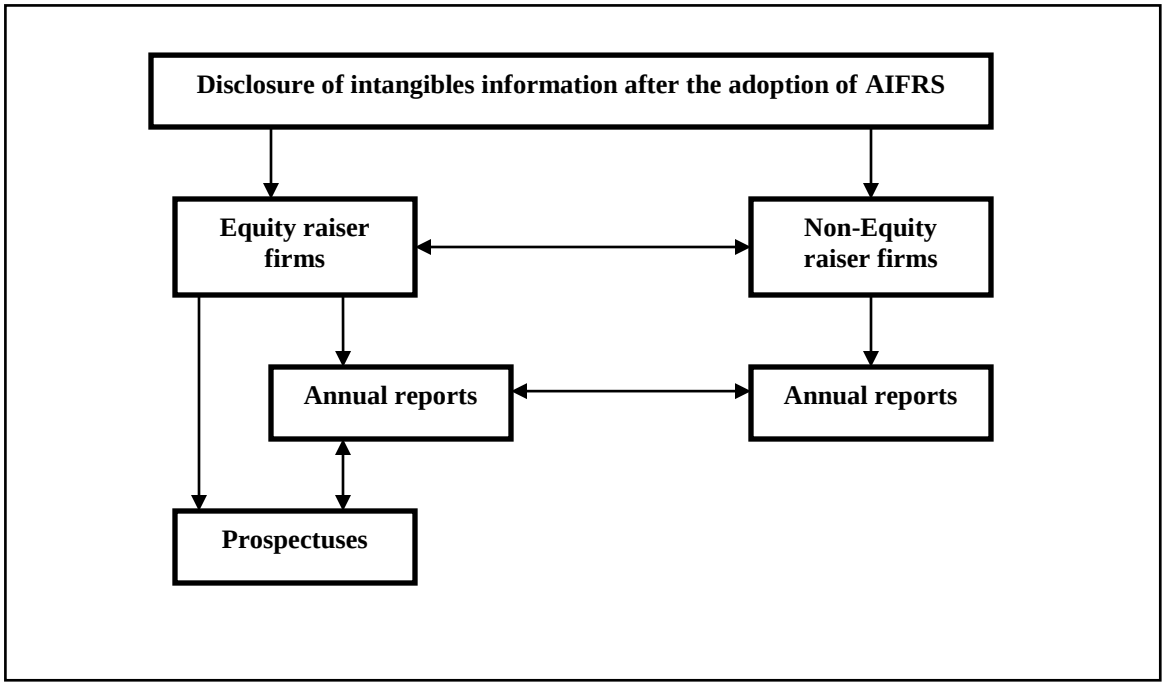


Figure 1 shows the proposed model and it is expected that equity-raiser firms will disclose more information compared to companies without capital-raising activity. It is important to assess whether established companies signal intangibles information in their annual reports prior to equity offerings so that the disclosure level can be compared with the behaviour of firms without equity offerings. It is also expected that firms will disclose more information, especially on intangibles to signal their new opportunities and growth, to highlight the favourable aspects of those investments. As prospectuses have a more limited group of readers compared to annual reports (Bukh, et al., 2005), some difference in the extent of disclosure is expected. According to Bukh et al (2005), a prospectus offers a unique opportunity for managers to present the company's financial capability, performance, operations, skills and the resources through which it intends to provide continued growth and increased shareholder wealth.

A prospectus is required under Australian Corporation Act 2001 in the event of capital raising activity. It is required under the Act that all prospectuses contain information on assets, liabilities, financial position, profit and losses and prospects of the corporation and the rights attaching to the securities. Equity offering is an invitation to offer equity that leads potential shareholders to buy the company's shares. As a prospectus is a timelier document to communicate information about intangibles, it is expected that companies will signal the intangibles information in the annual reports prior to the issuance of shares. It is

also expected that a prospectus provides additional disclosure of the company's long term strategy and non-financial indicators useful in judging the effectiveness of the strategy implementation. Based on the literature review of intangibles and the capital market, three propositions have been put forward to investigate the disclosure of intangibles in the annual reports and the prospectus.

Proposition 1:
*Equity-raiser firms will disclose more intangibles information compared to their non-equity-raiser counterparts.*

Proposition 2:
*Disclosure of intangibles in the annual reports acts as a signal to the market when a company has an intention to raise capital in the following year.*

Proposition 3:
*Disclosure of intangibles in the prospectus is complementary when a company has already signalled the intangibles in the annual reports.*

## 3.2 Data collection plan

The population for the study will be the Top 200 ASX Listed companies in 2006-2008. The annual reports from 2006 to 2008 will be investigated together with the prospectuses of the Top 200 companies in 2007-2009. To investigate the propositions, content analysis will be undertaken to analyse the annual reports and the prospectuses of the respective companies.

For content analysis to be effective, certain technical requirements should be met (Guthrie and Matthews, 1985). First, the categories of classification must be clearly and operationally defined. Second, items in the classification must be mutually exclusive. It must also be made clear that an item belongs to or does not belong to a particular category. Thirdly, a reliable coder is necessary for consistency. For the purpose of the study, a disclosure index is constructed to classify the intangibles information in the annual reports and the prospectuses. The decision schemes, as suggested by Krippendorf (2004), will be devised to assess *what* intangibles information is disclosed in the annual reports and prospectuses and *how* it is being disclosed. To attend to Beattie and Thomson's (2007) suggestion, this study attempts to provide a precise detail of content analysis so that it is transparent, allows findings to be interpreted and makes comparison easy. To ensure transparency, shared meanings of the intangibles categories will be developed.

Intangibles information presented in the annual reports and prospectuses are classified based on Lev's (2001) Value Chain Scoreboard disclosure index with some modification. The dependent variable, which is the disclosure of intangibles, will be measured using this disclosure index. According to Carney (1972), using externally established categories and definitions is essential for the reliability of a

study, as they avoid bias in generating data in favour of a researcher's own case. Besides, the use of intangible items devised by expert practitioners in the field also helps to minimise subjectivity relating to the intangibles categories.

The independent variable will be the specific event, which is equity offering. There will be some explanatory variables that act as control variables. To be consistent with Lang and Lundholm (1993) and Wallace et al. (1994), the control variables will be classified into three groups:

1. structure-related variables, for example, firm size, leverage and type of auditor;
2. performance-related variables, for example, return on equity; and
3. market-related variables, for example, listing status and foreign activity.

## 4. Preliminary testing of data

Content analysis has been utilised to examine the potential data, which are annual reports and prospectuses. For the purpose of the study, annual reports and prospectuses of secondary offerings are chosen as the sampling unit. The use of annual reports represents what is probably the most important document in terms of the organisation's construction of its own social imagery and it is regarded as a statutory document and produced regularly (Hines, 1988; Niemark, 1992). In addition, the demand for intangibles information is increasing as the importance of intangibles is growing (Bukh, et al., 2005), and this includes information in the prospectus.

At this stage, a 24-item disclosure index was developed and tested. In particular, this index is adopted from Lev's (2001) Value Chain Scoreboard. Amendments to Lev (2001) were made by adding, reclassifying and combining intangibles attributes to the existing framework. The modification is made, in particular, relating to infrastructure assets and human-centred assets, mostly drawn from Abeysekera and Guthrie (2005), Brooking (1996) and Guthrie et al (2004). The proposed index, which has 24-items, is shown in Table 1.

**Table 1: Proposed disclosure index**

| Discovery and learning | Implementation | Commercialisation |
|---|---|---|
| 1. Research and development<br>2. Organisational infrastructure<br>3. Technology purchase<br>4. Spill-over utilisation<br>5. Capital expenditure<br>6. Training and development<br>7. Work-related knowledge/education<br>8. Entrepreneurial spirit<br>9. R&D alliances and joint ventures<br>10. Supplier and customer integration<br>11. Communities of practice | 12. Patents, trademarks, copyrights<br>13. Licensing agreement<br>14. Coded know-how<br>15. Clinical test, beta test, pilot test<br>16. Online trading | 17. Marketing alliances<br>18. Brand values/reputation<br>19. Customers/customer satisfaction<br>20. Revenues, earnings, market share<br>21. product pipelines dates<br>22. Expected efficiency savings<br>23. Planned initiatives<br>24. Expected break even and cash burn rate |

Content analyses of nine annual reports were undertaken using the proposed disclosure index in Table 1. Annual reports were analysed using NVIVO, with specific decision rules. For instance, only voluntary disclosure sections were coded and this excludes financial statements and notes to the accounts. To ensure consistency of the analysis, paragraphs were used as the context unit to describe the textual information on intangibles. At this stage, the disclosure of intangibles was coded based on appearance. By using NVIVO, each paragraph that belongs to each item can be extracted systematically. Examples of coded paragraph are as follows:

Research and development:
*"Our reviews show that we had an estimated spend of A$148 million in fiscal 2005 on research and development. The expenditure was determined to be A$159 million in fiscal 2004 and A$240 million in fiscal 2003"*

*Telstra Annual Report 2005, p.27*

Brand values/reputation:
*"We are Australia's leading telecommunications and information services company, with one of the best known brands in the country."*
*Telstra Annual Report 2005, p.3*

Capital expenditure:
*"During 2005, Woodside spent $346 million on exploration, including drilling 19 exploration wells. Seven exploration wells were drilled in Australia resulting in four gas discoveries. Five exploration wells were drilled in Mauritania resulting in two oil discoveries."*
*Woodside 2005 Annual Report, p. 10*

Besides content analysis of nine annual reports using NVIVO, another 17 annual reports in 2007 were randomly selected and analysed using computerised keyword search to test the applicability of the disclosure index. This process was followed by analysis of prospectuses of the same companies in the following year. Computerised keyword search was done to test the applicability of the disclosure index in Table 1. The most frequently disclosed item was 'customer/customer satisfaction' with 97 hits whereas 'entrepreneurial spirit' was only mentioned once. The results of the analysis supported the preliminary expectation that companies make use of prospectuses to disclose information about intangibles as complementary to information disclosed in the annual reports.

The preliminary testing of the data shows that relevant data are available and there are sufficient annual reports and prospectuses to allow for sample selection processes. However, the process of content analysis was time-consuming and labour-intensive. The preliminary data also indicate that the data can be handled to assist the extended data collection and analysis. However, the disclosure index needs refinement and modification because there is only partial acceptance of the index.

## 5. Discussion and Conclusion

This study set out to investigate intangibles disclosure practices of the Top 200 ASX companies when they have equity offerings. Drawing on signalling theory, it has been argued that firms consistently provide additional information both in their annual reports and prospectuses to mitigate the problem of information asymmetry. As information on intangibles is restricted to only those prescribed by the relevant standards, the disclosure of additional information by managers shows that additional information helps investors to evaluate firm's performance more critically. Since information released voluntarily can be a powerful indicator of performance, managers have the choice to provide additional information to signal their company's position to outside investors. The review of the literature suggests that the obvious impacts of disclosure of additional information are the decrease in the cost of capital and greater liquidity of the firm's shares. For established companies, disclosure of intangibles information allows them to enjoy

the benefits of reduced information asymmetry because the capital market needs the information to form the basis of assessment about the company.

The next stage of this study is to refine the model on the possible relationship between intangibles disclosure in annual reports and prospectuses. The preliminary testing of data has shown that there are available data in both documents to support the preliminary expectation of the relationship. Besides the refinement of the conceptual model, the disclosure index also needs to be perfected so that it can capture the relevant intangibles information it intended to capture. It is hoped that the extended data collection and analysis will provide additional evidence that the intention to raise funds by established companies acts as one of the factors to explain manager's decisions to increase voluntary disclosure of intangibles.

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