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Parulian Sihotang
Bina Nusantara University, Jakarta., psihotang@bpmigas.com

Yulia Sanjaya

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Reporting Intellectual Capital in Annual Reports: Evidence from Indonesia

Parulian Sihotang* and Yulia Sanjaya

*This exploratory study which replicates the content analysis methodology of Guthrie et all (1999, 2004) towards Intellectual Capital (IC) disclosures in the annual report has set several objectives. Primarily, the empirical investigation assesses the extent to which Indonesian listed companies are publicly reporting their IC both the amount and type of information being reported. Secondly, the investigation also examines the extent to which the various categories of IC are represented in the annual reports of the sample companies. Finally, the study explores the extent to which the level of IC disclosures could be related to companies' characteristics such as industry category, age, ownership structure and market capitalization. The sample was Indonesia's 23 largest companies listed in the Jakarta Stock Exchange. In light of research limitations, the preliminary and tentative findings of this study indicate that **first of all**, similar to findings worldwide, Indonesian companies have substantial intellectual capital and they do aware and disclose their intellectual capital in the annual reports. **Secondly**, IC that tends to be most often reported is relational capital, followed by human capital and organizational capital. **Thirdly**, even though the trend in IC disclosure as a whole is generally increasing, there is no conclusive and predictable pattern found. **Fourthly**, the IC identified and reported is inconsistent as no framework available in helping the companies discloses intellectual capital. **Fifthly,** most of the intellectual capital components identified are in qualitative format. **Sixthly,** even though the study did not find a conclusive evidence regarding the relationship between the level of IC disclosure and company characteristics such as industry, age, ownership structure, and market capitalization, however some findings are noteworthy. **Finally**, a comprehensive framework is yet to be developed, especially for collecting and reporting IC formation for consistency and comparability purposes.*

Keywords: *Market segmentation, integration, regionalism, emerging financial market and trade block*

Introduction

There are three types of capital that organizations generally maintain and develop. They include physical capital, financial capital, and intellectual capital (Lev 2001). Physical capital refers to the traditional inputs of land, labor and capital,

* Correspondence to: Parulian Sihotang, Bina Nusantara University, Jakarta, Indonesia. E-mail: psihotang@bpmigas.com, sihotang.parulian@gmail.com

whereas, intellectual capital refers to knowledge, creativity, skills, and corporate culture (Goh 2005). Financial capital, on the other hand, refers to monetary items such as cash, receivables, and payables.

In the old economy, organizations rely on physical and financial capital. Such capital is generally disclosed under the traditional financial reporting. However, at present, there is a shift toward the economy in which organizations depend more on intellectual capital compare to physical and financial capital. Organizations are concentrating more on knowledge creation and less on physical items. This is a world in which concerns with tangible assets, like factories and land, diminish in relative importance (Guthrie 2001) and companies show a limited amount of assets on the balance sheet relative to the added value they produce, because they use less-tangible assets and because they have stripped their balance sheet of fixed assets (Andriessen 2004).

This so called new economy is driven by knowledge because increasing importance is being placed on maximizing the organization's intellectual capital (Zhou & Fink 2003) as featured by a higher productivity level and innovation rate (Chaharbaghi and Cripps 2006). The term "new economy" also refers to "knowledge-based economy", the "information age", the "third wave", "knowledge-driven economy", "knowledge-centric economy", and the "electronic economy" (Bontis, 2001).This research study seek to examine and examines the proposition that intellectual capital management is an important strategy to companies and that this will be reflected by way of disclosure of intellectual capital items in the firm's annual report. The research, which adopt content analysis as the main methodology, is intended to provide a better understanding of how Indonesian listed companies have responded to the challenge of reporting on intellectual capital.

Structure and Contribution of the Paper

The next section of the paper examines the prior literature which is limited to a intellectual capital and its reporting in annual reports. Research questions and research methodology will be followed. Then discussion of research finding will be revealed. The paper will provide some exploratory conclusions in light of research limitations. Avenues for future research will be offered as the last part of this article.

This paper makes a contribution to the literature in several ways. First, although it replicates the methodology developed by Guthrie et all (1999, 2004), this is applied to a different sample in a different economy environment. Secondly, content analysis methodology conducted is enriched by extracting sentences and paragraph of intellectual capital disclosures from the annual reports. Thirdly, there is an attempt to explore possible relationship between intellectual capital disclosures and the company characteristics such as industry category, age, ownership structure as well as market capitalization.

Literature Review

Brief History of Intellectual Capital

Sullivan (2000) explained that intellectual capital exploded into the business scene in the 1990s. Later, Guthrie (2001) have made a chronological review on the history of intellectual capital including the first development of intangible assets, the emergence of intellectual capital, and all related and significant events relating to intellectual capital measurement, management, and reporting as illustrated in Table 1.

Table 1. Milestones – A Chronological Review of Significant Contributions to The Identification, Measurement and Reporting of Intellectual Capital

Period	Progress
Early 1980s	General notion of intangible value (often generally labeled "goodwill").
Mid-1980s	The "information age" takes hold and the gap between book value and market value widens noticeably for many companies.
Late 1980s	Early attempts by practitioner consultants to construct statements/accounts that measure intellectual capital (Sveiby 1997).
Early 1990s	Initiatives to systematically measure and report on company stocks of intellectual capital to external parties (e.g. Celemi 1999; Skandia Insurance Company 1998; The Swedish Coalition of Service Industries 1995). In 1990, Skandia AFS appoints Leiv Edvinsson "Director of Intellectual Capital". This is the first time that the role of managing intellectual capital is elevated to a position of formal status and given an air of corporate legitimacy. Kaplan and Norton introduce the concept of Balance Scorecard (1992). The scorecard evolved around the premise that "what you measure is what you get".
Mid-1990s	Nonaka and Takeuchi (1995) present their highly influential work on "the knowledge creating company". Although the book concentrates on "knowledge", the distinction between knowledge and intellectual capital is sufficiently fine as to make it relevant to those with a pure focus on intellectual capital. Celemi's Tango simulation tool is launched in 1994. Tango is the firsat widely marketed product to enable executive education on the importance of intangibles. Also in 1994, a supplement to Skandia's annual report is produced which focuses on presenting an evaluation of the company's stock of intellectual capital. "Visualizing Intellectual Capital" generates a great deal interest from other companies seeking to follow Skandia's lead (Edvinsson 1997). Another sensation caused in 1995 when Celemi uses a "knowledge audit" to offer a detailed assessment of the state of its intellectual capital. Pioneers of the intellectual capital movement publish bestselling books on the topic (Kaplan and Norton 1996; Edvinsson and Malone 1997; Sveiby 1997). Edvinsson and Malone's work, in particular, is very much about the process and the "how" of measuring intellectual capital.
Late 1990s	Intellectual capital becomes a popular topic with researchers and academic conferences, working papers and other publications find an audience. An increasing number of large scale projects (e.g. the MERITUM project; Danish; Stockholm) commence with aim, in part, to introduce some academic rigour into research on intellectual capital. In 1999, the OECD convenes an international symposium in Amsterdam on intellectual capital (OECD 1999; 2000).

Source: Guthrie 2001

The Definition of Intellectual Capital

Up to present, there is no consensus regarding the exact definition of intellectual capital. Zhou and Fink (2003) stated that it is difficult to define intellectual capital due to its invisible and dynamic nature.

Andriessen (2004) argued that there are three perspectives in defining intellectual capital: knowledge, intellectual intangibles, and look beyond the brain. In the knowledge perspective, intellectual capital is limited only to knowledge applied to work to create value (Edvinsson and Malone 1997). Intellectual capital is a matter of broad organizational knowledge, unique to a firm, which allows it constantly to adapt to changing conditions (Mouritsen 1998). Finally, Sullivan (2000) concluded that intellectual capital is describes as knowledge that can be converted into profits.

Using the intellectual intangibles perspectives, the intellectual capital definition includes knowledge and other intangibles. Stewart (1997) defined intellectual capital as composed of the intangible assets of knowledge, skill, and information system, while Roos et al (1997) argued that intellectual capital refers to the sum of the knowledge of its members and the practical translation of this knowledge that is brands, trademarks, and processes. If Sullivan (2000) proposed intellectual capital as the sum of firm's ideas, innovations, technology, general knowledge, computer program, designs, data, skills, processes, creativity and publications, Brooking (1996) defined intellectual capital as the combined intangible assets, which enable the company to function.

Finally, from the "look beyond the brain" perspective, intellectual capital as the organizations' competitive advantage, is equal to a company's core competencies (Viedma, 2001, Andriessen, 2004). Intellectual capital is intellectual material that has been formalized, captured and leveraged to produce a higher-valued asset (Prusak 1994) and it includes all factors critical to an organization's future success that are not shown on the traditional balance sheet i.e. future earnings capabilities (Edvinsson et al. 2005).

Even though a consensus has not been agreed yet on the definition of intellectual capital, there is a general understanding that there are three components of intellectual capital: human capital, organizational capital and customer capital (Bontis, 2001; Edvinsson and Malone, 1997; Roos and Roos, 1997; Stewart, 1997). Other literatures use structural capital for organizational capital, while customer capital is called either relational capital or external structure. Seetharaman et al. (2004), for example, classifies intellectual capital as follows:

Human capital is represented in the more restricted sense of the know-how, capabilities, skills, and expertise of the human members of an organization (Roslender and Fincham 2001). Unlike organizational capital, organization cannot control and possessed human capital. However, Guthrie and Petty (2000) argued that from a value-based perspective they should be measured and placed on the balance sheet, as one cannot envisage an organization without employees.

Organizational capital which is also named structural capital, and internal structure includes organizational culture, patent, copyright, trademark, and information technology. These are usually created by the employees or are brought in (Guthrie and Petty, 2000). Organizations are able to make decision on organizational capital, that is, the management can determine to finance and create these items or remove them. Finally, relational capital which is also referred to external structure and customer capital, could be defined as the value of the relations that an organization maintains with the different agents of its environment (Martin de Castro et al. 2004). This consists of relationships with customers and suppliers, brand names, trademarks and reputation (Guthrie and Petty 2000). Meanwhile Andriessen (2004) argued that organizational, relational and human capitals are interrelated to one and another because people (human capital) work through technology (structural capital), and customers (relational capital) get services from people (human capital).[1]

What is IC Disclosure?

IC disclosure also refers to IC reporting or IC statement. Mouritsen et al. (2002) explained that intellectual capital statement reports on firms' knowledge management activities – neither on the value of knowledge, the amount of knowledge, nor on the departments involved in producing knowledge. They report on organization-wide knowledge resources that in combination are capabilities, which make its possible for the firm to act – to do something.

The need for IC disclosure is stimulated by the demand of investors and financial analyst to get more reliable information on organization knowledge creation activities (i.e. IC). This means that an IC report should communicate the management's

[1] Intellectual capital may provide the following values for the organizations (Sullivan 2000): (1) Product and services revenue, (2) Reputation and image, (3) Access to technology of others, (4) Litigation avoidance, (5) Design freedom, (6) Reduced costs, (7) Blocked competition, (8) Barriers to entry by potential competitors, (9) Customer loyalty and (10) Protection for innovations.

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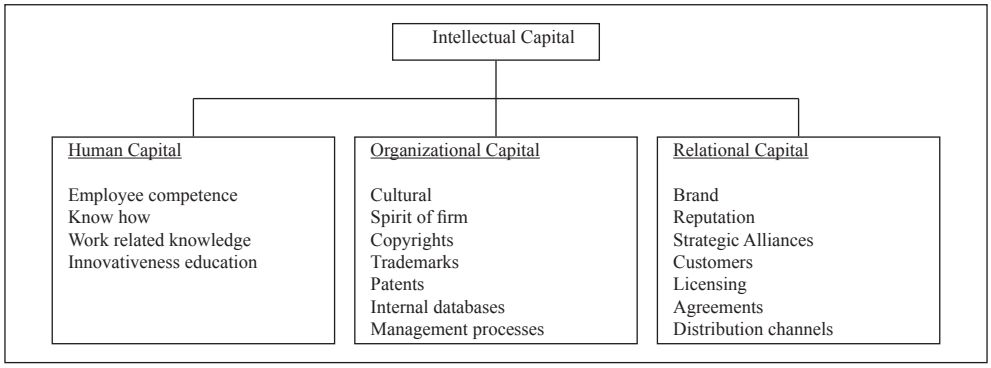
Figure 1. Classification of intellectual capital (Seetharaman et al. 2004)



understanding of strategy and value creation, and not only shows indicators of general interest (Bukh 2003).[2]

Mouritsen et al. (2004) contend that IC statements can be used as tools to communicate the knowledge-based strategy externally but it can also be used as an internal management tool. Moreover, IC statements attempt to show a firm has managed its knowledge resources and it therefore forms part of the firm's knowledge management activities. However, unlike physical and financial capital, the disclosure of IC within the annual report is low as required by traditional financial reporting. Organizations generally disclose physical and financial capital but not IC. As a result, organizations are voluntarily disclosing intellectual capital in their annual report.

So far as the accounting framework on the definition and disclosure of intellectual capital, Guthrie (2001) indicated that the term intellectual capital is treated as being synonymous with intangibles assets frequently; However, historically the difference between those terms has been undetermined. At present there is no definition on intellectual capital provided by the accounting framework. However, the accounting framework has clearly defined intangible assets.[3]

As organizations cannot fully disclose their intellectual capital in the balance sheet, organizations voluntarily disclose them as intellectual capital statement in their annual reports. Among the pioneers were corporations like the Swedish insurance company Skandia, the Danish company Rambol, and the Dow Chemical Company (Guthrie 2001).[4]

Andriessen (2004) stated that there are five objectives in disclosing intellectual capital. They include (a) closing the value gap between book and market value of an organization, (b) improving information to

[2] Bukh (2003) further found that intellectual capital statements contain various financial and non-financial information. And using the definition of general purpose financial reporting as a basis, Abeysekara (2006) and Guthrie (2001) have defined intellectual capital disclosure as a report 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.

[3] Traditional accounting practice does not provide the identification and measurement of these "new" intangibles in organizations (Guthrie, 2001). New intangibles include customer lists, customer relationship, employee training, and employee satisfaction. Therefore, intangible assets are restricted to the structural part of the intellectual capital and they exclude human capital (Andriessen 2004) and relational capital (i.e. customer loyalty, supplier relationship). Intellectual capital does not (fully) appear in the traditional financial accounts, because the traditional financial accounting framework inadequately reflects the value and impacts of intangibles (Meer-Kooistra & Zijlstra 2001). Hence, accounting for intellectual capital will ultimately require the invention of new financial and management accounting concepts and practices.

stakeholders about the real value and future performance of the enterprise, (c) reducing information asymmetry, (d) increasing the ability to raise capital and (e) enhancing corporate reputation and affecting stock price.

Empirical Research and Findings on IC Disclosures

Empirical research on IC disclosures within the annual reporting of organizations have been conducted by various researchers both in developing and developed countries. Guthrie and Petty (2000) studied the intellectual capital disclosures in Australia, while Bozzolan et al (2003) made the same research in Italy, Abeysekara (2000) in Srilanka , and Brennan (2001) in Ireland.

In Australian case, Guthrie and Petty (2000) found that (a) the key components of intellectual capital are not reported within a consistent framework when reported at all, (b) the main areas of intellectual capital reporting focus on human resources; technology and intellectual property rights; and organizational and workplace structure, and (c) there is no established and mutually agreed framework for reporting intellectual capital by companies as well as accounting profession.

Brennan (2001), in the context of Irish companies, argued that the companies have substantial intellectual capital assets. However, Irish companies are currently making little progress in measuring these assets. Such assets are rarely referred to in annual reports and, when referred to, it is in the most qualitative terms.

Then, Bozzolan et al (2003) concluded that disclosure by Italian companies mainly occurs with regard to external structure (with particular attention to customers, distribution channels, business collaboration and brands). In addition, industry and size seem to be relevant factors in explaining the differences in reporting behavior amongst Italian companies.

Methodology

Research Questions

There are three main research questions to be explored in this study. First of all: do Indonesian listed companies have intellectual capital assets? Secondly, to what extent listed Indonesian companies have intellectual capital components disclosed on their annual report and thirdly, to what extent company characteristics such as industry category, age, ownership structure as well as market capitalization could influence the frequency of intellectual capital disclosures?

Population and Sample

The population of this study is top 40 listed companies in Jakarta Stock Exchange based on market capitalization. Due to data availability, the sample of this study is only 23 (58%) top listed organizations covering 6 out of 9 industry categories in Jakarta

[4] Moreover, Organization for Economic Co-operation and Development symposium in 1999 concluded that voluntary intellectual capital disclosures by management may enable investors and other relevant stakeholders to assess better the firm's future wealth creation capabilities (Williams 2001). As stakeholders have been more informed by the intellectual capital disclosure within annual report, the inherent risk of the stakeholders and organization's cost of capital are minimize. However, there are no clear guidelines on intellectual capital disclosure provided by accounting framework. Nevertheless, a positive reaction by the accounting framework (i.e. FASB, IASB) on intellectual capital or intangible assets has emerged. FASB established a steering committee to study ways in which voluntarily disclosure of intellectual capital could be facilitated (Abdolmohammadi 2005). FASB's research staff identified the importance of attention to the disclosure of intangible assets for all companies, but particularly for companies in the new economy (Upton, 2001, Abdolmohammadi 2005).

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Table 2. Sample Companies based on Industry Category

No	Listed Company	Industry
1	Telekomunikasi Indonesia	Infrastructure, Utilities and Transportation
2	Bank Mandiri (Persero) Tbk	Finance
3	Bank Central Asia Tbk	Finance
4	Indosat Tbk	Infrastructure, Utilities and Transportation
5	HM Sampoerna Tbk	Consumer Goods Industry
6	Bank Negara Indonesia Tbk	Finance
7	Bank Danamon Indonesia Tbk	Finance
8	INCO Tbk	Mining
9	Indocement Tunggal Prakarsa Tbk	Basic Industry and Chemicals
10	Semen Gresik (Persero) Tbk	Basic Industry and Chemicals
11	Bank International Indonesia Tbk	Finance
12	Indofood Sukses Makmur Tbk	Consumer Goods Industry
13	Medco Energi Internasional Tbk	Mining
14	Bank Pan Indonesia Tbk	Finance
15	United Tractors Tbk	Trade, Service and Investment
16	Bank Permata Tbk	Finance
17	Ramayana Lestari Sentos Tbk	Trade, Service and Investment
18	Kalbe Farma Tbk	Consumer Goods Industry
19	Bank Buana Indonesia Tbk	Finance
20	Sari Husada Tbk	Consumer Goods Industry
21	Bank Niaga Tbk	Finance
22	Aneka Tambang Tbk	Mining
23	Tambang Batubara Bukit Asam Tbk	Mining

Stock Exchange. The sample companies are summarized in the following table based on market capitalization.

Comparison between Market Values (Market Capitalization) and Book Values

Generally speaking there are three ways of measuring intellectual capital (Brennan, 2001). First approach is what is known as value-based measurement in which intellectual capital is valued as the difference between market value and book value. This is the most simple provided relevant information is available publicly. Second approach uses Skandia Navigator, developed by Skandia, a Swedish firm in 1994 to identify and quantify critical success factors in key dimensions of business. The third approach uses Intellectual Capital Index to measure the efficiency of intellectual assets by identifying (in terms of importance) and weighting key measures of success of a firm in order to provide a single summary index. (Roos et al., 1997). Brennan (2001) argues that the Skandia Navigator and the Intellectual Capital Index require information not generally publicly available and are more suitable for management use, whereas market-to-book value ratios are more suitable to external users of accounts.

Content Analysis of the Annual Report

Content analysis of the companies' annual reports is used as the main research method in this. It adopts the methodology developed by Guthri et al (1999, 2004) and Guthrie and Petty (2000). In this case annual reports covering the period from 2002 until 2004 are collected. Content analysis is used in analyzing the data as the annual report is qualitative in nature (Sekaran, 2003). Sekaran (2003) further stated that content analysis is an attempt to quantify qualitative data by noting, for example, frequencies of events, words, actions, and so on'.[5]

[5] See Stemler (2002) for further advantages of content analysis and Guthrie et al (2004) for drawbacks of content analysis

Table 3. Intellectual Capital Components

Intellectual Capital Components		
Organizational Capital	Relational Capital	Human Capital
Intellectual Property	Brands	Know-how
Patents	Customers	Education
Copyrights	Customer Loyalty	Vocational Qualification
Trademarks	Company Names	Work-related Knowledge
Infrastructure Assets	Distribution Channels	Work-related Competencies
Management Philosophy	Business Collaborations	Entrepreneurial Spirit
Corporate Culture	Licensing Agreements	
Management Processes	Favorable Contracts	
Information Systems	Franchising Agreements	
Networking Systems		
Financial Relations		

Source: Guthrie et al, 1999 and Guthrie and Petty 2002

As a replication of Guthrie et al (1999) and Guthrie and Petty (2002), the variables to be measured are intellectual capital components as illustrated in Table 3. However, unlike Guthrie and Petty (2002) who use four-way numerical coding systems, this study adopts the following simple coding system: (see also Brennan 2001):[6]

- 0 = Item did not appear in the annual report
- 1 = Item appeared in the annual report in narrative form

Expanding Guthrie and Petty (2002) work, this research uses two level of analyses as follows:

1. Analyses using the intellectual capital components mentioned by Guthrie and Petty (2000).
2. Analyses using the intellectual capital components mentioned by Guthrie and Petty (2000) plus the synonyms of the variables as disclosed in table 4 (on page 133)

Finding from the second analysis will be used further to answer research question no. 2 i.e. whether the frequency of intellectual capital disclosures of the sample companies could be influenced by such company characteristics as industry category, age, ownership structure, and market capitalization.

Moreover, dissimilar from Guthrie and Petty (2000) who exclude variables required by the accounting standards and the corporation law, this research study includes them in the unit of analysis. To extent the research, the researchers also look for sentences and paragraphs that represent or reflect intellectual capital types in general.

Company Characteristics

In this research study, company characteristics such as age, industry category, ownership structure and market capitalization are also considered in order to look for their relationship with the level of intellectual capital disclosures.

Age

In this research study, companies age could be classified into three categories as follows: "Young" companies whose age are less than or equal to 40 years , "middle age" companies with more than 41 but less then or equal to 80 years, "old" companies with more than 80 years old. Table below discloses the age information.

[6] The four-way numerical coding systems include: 0 = Item did not appear in the annual report, 1 = Item appeared in annual report in narrative form, 2 = Item was given a numerical value in the annual report, and 3 = Item was given a monetary value in the annual report (Guthrie et al, 1999).

Table 4. Intellectual Capital and the Synonyms

Intellectual Capital Components	
Guthrie and Petty (2000)	**Synonyms**
Organizational Capital	
Intellectual Property	
Patents	-
Copyrights	-
Trademarks	-
Infrastructure Assets	
Management Philosophy	Business Philosophy, Company Philosophy, Corporate Philosophy
Corporate Culture	Corporate value, Organizational Value, Company Value
	Internal Processes, Business Processes
Management Processes	Information Technology, Applications System
Information Systems	-
Networking Systems	-
Financial Relations	
Relational Capital	-
Brands	Consumer, Subscriber, Client, Buyer
Customers	-
Customer Loyalty	-
Company Names	Delivery Channels, Distribution System, Distribution
Distribution Channels	Chain, Delivery System, Distribution Infrastructure , Distribution Network
	Partnerships, Joint Venture, Cooperation, Strategic
Business Collaborations	Alliance
	-
Licensing Agreements	Contract of Work, Long Term Contract
Favorable Contracts	Franchise Scheme
Franchising Agreements	
Human Capital	Knowledge, Expertise, Skills
Know-how	Training
Education	-
Vocational Qualification	-
Work-related Knowledge	-
Work-related Competencies	Innovative, concept
Entrepreneurial Spirit	

Industry

Table 5. Industry Category of Sample Companies

No	Listed Company	Industry
1	Semen Gresik (Persero) Tbk	Basic Industry and Chemicals
2	Indocement Tunggal Prakarsa Tbk	Basic Industry and Chemicals
3	HM Sampoerna Tbk	Consumer Goods Industry
4	Indofood Sukses Makmur Tbk	Consumer Goods Industry
5	Kalbe Farma Tbk	Consumer Goods Industry
6	Sari Husada Tbk	Consumer Goods Industry
7	Bank Mandiri (Persero) Tbk	Finance
8	Bank Central Asia Tbk	Finance
9	Bank Negara Indonesia Tbk	Finance
10	Bank Danamon Indonesia Tbk	Finance
11	Bank International Indonesia Tbk	Finance
12	Bank Pan Indonesia Tbk	Finance
13	Bank Permata Tbk	Finance
14	Bank Buana Indonesia Tbk	Finance
15	Bank Niaga Tbk	Finance
16	Telekomunikasi Indonesia	Infrastructure, Utilities and Transportation
17	Indosat Tbk	Infrastructure, Utilities and Transportation
18	INCO Tbk	Mining
19	Medco Energi Internasional Tbk	Mining
20	Aneka Tambang Tbk	Mining
21	Tambang Batubara Bukit Asam Tbk	Mining
22	United Tractors Tbk	Trade, Service and Investment
23	Ramayana Lestari Sentos Tbk	Trade, Service and Investment

Ownership Structure

In this research study, sample companies are also categorized into two ownership structure. Firstly, companies whose majority shares are owned and controlled by the government (called as listed state-owned companies/S) and secondly, those whose majority shares are owned and controlled by non-government parties (called as listed private-owned companies/P). Table below reveals the ownership information.

Market Capitalization

Sample companies in this research are also classified based on their market capitalization: Small, Medium, and Large-sized companies. Small-sized companies have market capitalization less then or equal to IDR 30.000.000.000, medium-sized ones have market capitalization more than IDR 30.000.000.000 but less then IDR 60.000.000.000, while large-sized companies have market capitalization more than or equal to IDR 60.000.000.000. Table 8 explains the classification.

Result and Discussion

In this research study, a content analysis on annual reports of the sample companies has been conducted. The findings will be classified based on the research questions raised.

Research Question No.1: Do Indonesian Listed Companies Have Intellectual Capital Assets?

Based on market-to-book value approach, Table 9 reveals the value of intellectual capital (hidden value) in 23 sample companies as follows:[7]

The table shows that listed companies in Indonesia do have intellectual capital, an average of 58% from the market value.

Table 7. Ownership Structure of Sample Companies

No	Listed Company	Category
1	Indofood Sukses Makmur Tbk	Listed Private-Owned
2	Indocement Tunggal Prakarsa Tbk	
3	Medco Energi Internasional Tbk	
4	Ramayana Lestari Sentos Tbk	
5	United Tractors Tbk	
6	Bank Pan Indonesia Tbk	
7	INCO Tbk	
8	Kalbe Farma Tbk	
9	Bank Danamon Indonesia Tbk	
10	Bank Buana Indonesia Tbk	
11	Bank Central Asia Tbk	
12	Bank Niaga Tbk	
13	Sari Husada Tbk	
14	Bank Permata Tbk	
15	HM Sampoerna Tbk	
16	Bank Mandiri (Persero) Tbk	Listed State-Owned
17	Tambang Batubara Bukit Asam Tbk	
18	Aneka Tambang Tbk	
19	Indosat Tbk	
20	Semen Gresik (Persero) Tbk	
21	Bank International Indonesia Tbk	
22	Bank Negara Indonesia Tbk	
23	Telekomunikasi Indonesia	

[7] Market value is total market capitalization which is the total shares outstanding in December 31, 2004 multiplied by share price, while book value in the difference between the total assets and total liabilities for the same date.

Table 8. Market Capitalization of the Sample Companies

No	Listed Company	Market Cap In thousand of Rupiah	Category
1	Tambang Batubara Bukit Asam Tbk	3,253,290	
2	Aneka Tambang Tbk	3,290,769	
3	Bank Niaga Tbk	3,577,726	
4	Sari Husada Tbk	3,743,000	
5	Bank Buana Indonesia Tbk	4,074,040	
6	Kalbe Farma Tbk	4,466,880	
7	Ramayana Lestari Sentos Tbk	5,425,000	
8	Bank Permata Tbk	5,749,271	
9	United Tractors Tbk	6,480,447	SMALL
10	Bank Pan Indonesia Tbk	6,673,982	
11	Medco Energi Internasional Tbk	6,914,837	
12	Indofood Sukses Makmur Tbk	7,555,351	
13	Bank International Indonesia Tbk	8,751,520	
14	Semen Gresik (Persero) Tbk	10,973,312	
15	Indocement Tunggal Prakarsa Tbk	11,319,787	
16	INCO Tbk	11,476,471	
17	Bank Danamon Indonesia Tbk	21,253,106	
18	Bank Negara Indonesia Tbk	22,024,358	
19	HM Sampoerna Tbk	29,146,950	
20	Indosat Tbk	30,389,894	
21	Bank Central Asia Tbk	36,251,367	MEDIUM
22	Bank Mandiri (Persero) Tbk	38,370,707	
23	Telekomunikasi Indonesia	97,271,997	LARGE

Table 9. Comparison Market Value and Book Value

No	Listed Company	Market Value	Book Value	Hidden Value	%
		000	000	000	
1	Semen Gresik (Persero) Tbk	10.973.312	3.723.000	7.250.312	0,66
2	Indocement Tunggal Prakarsa Tbk	11.319.787	4.656.000	6.663.787	0,59
3	HM Sampoerna Tbk	29.146.950	5.177.000	23.969.950	0,82
4	Indofood Sukses Makmur Tbk	7.555.351	5.015.000	2.540.351	0,34
5	Kalbe Farma Tbk	4.466.880	1.480.000	2.986.880	0,67
6	Sari Husada Tbk	3.743.000	1.024.000	2.719.000	0,73
7	Bank Mandiri (Persero) Tbk	38.370.707	24.938.000	13.432.707	0,35
8	Bank Central Asia Tbk	36.251.367	13.927.000	22.324.367	0,62
9	Bank Negara Indonesia Tbk	22.024.358	12.887.000	9.137.358	0,41
10	Bank Danamon Indonesia Tbk	21.253.106	7.931.000	13.322.106	0,63
11	Bank International Indonesia Tbk	8.751.520	4.211.000	4.540.520	0,52
12	Bank Pan Indonesia Tbk	6.673.982	4.879.000	1.794.982	0,27
13	Bank Permata Tbk	5.749.271	2.389.000	3.360.271	0,58
14	Bank Buana Indonesia Tbk	4.074.040	1.902.000	2.172.040	0,53
15	Bank Niaga Tbk	3.577.726	2.369.000	1.208.726	0,34
16	Telekomunikasi Indonesia	97.271.997	25.200.000	72.071.997	0,74
17	Indosat Tbk	30.389.894	13.349.000	17.040.894	0,56
18	INCO Tbk	11.476.471	10.055.000	1.421.471	0,12
19	Medco Energi Internasional Tbk	6.914.837	5.366.000	1.548.837	0,22
20	Aneka Tambang Tbk	3.290.769	2.479.000	811.769	0,25
21	Tambang Batubara Bukit Asam Tbk	3.253.290	1.698.000	1.555.290	0,48
22	United Tractors Tbk	6.480.447	3.140.000	3.340.447	0,52
23	Ramayana Lestari Sentos Tbk	5.425.000	1.657.000	3.768.000	0,69

Research Question 2: To What Extent Listed Indonesian Companies Have Intellectual Capital Components Disclosed on Their Annual Report?

Using word as unit of analysis in which intellectual components used by Guthrie and Petty (2000) are used as the basis, the content analysis performed to 23 annual reports of listed companies at Jakarta Stock Exchange reveals the findings in table 10 below.

Table 10. Intellectual Capital Components Disclosure 2002 - 2004

Intellectual Capital Components	Year						3 years average
	2002	2002 %	2003	2003 %	2004	2004 %	
Organizational Capital							
Intellectual Property							
Patent	9	0.75%	9	0.65%	10	0.62%	0.67%
Copyright	0	0.00%	0	0.00%	0	0.00%	0.00%
Trademark	16	1.33%	19	1.37%	18	1.12%	1.27%
Infrastructure Assets							
Management Philosophy	4	0.33%	1	0.07%	0	0.00%	0.14%
Corporate Culture	12	1.00%	22	1.59%	18	1.12%	1.24%
Management Processes	2	0.17%	13	0.94%	5	0.31%	0.47%
Information System	49	4.09%	46	3.32%	67	4.15%	3.85%
Networking System	0	0.00%	1	0.07%	0	0.00%	0.02%
Financial Relation	0	0.00%	0	0.00%	0	0.00%	0.00%
Relational Capital							
Brand	115	9.59%	117	8.45%	139	8.62%	8.89%
Customers	878	73.23%	1003	72.42%	1200	74.40%	73.35%
Customer Loyalty	4	0.33%	2	0.14%	5	0.31%	0.26%
Distribution Channel	14	1.17%	18	1.30%	21	1.30%	1.26%
Business Colaborations	0	0.00%	0	0.00%	0	0.00%	0.00%
Licensing Agreements	3	0.25%	3	0.22%	2	0.12%	0.20%
Favourable Contracts	0	0.00%	0	0.00%	0	0.00%	0.00%
Franchising Agreements	0	0.00%	0	0.00%	0	0.00%	0.00%
Human Capital							
Know How	1	0.08%	0	0.00%	1	0.06%	0.05%
Education	92	7.67%	131	9.46%	126	7.81%	8.31%
Vocational Qualification	0	0.00%	0	0.00%	0	0.00%	0.00%
Work Related Knowledge	0	0.00%	0	0.00%	0	0.00%	0.00%
Work Related Competence	0	0.00%	0	0.00%	0	0.00%	0.00%
Entrepreneurial Spirit	0	0.00%	0	0.00%	1	0.06%	0.02%
	1199	100%	1385	100%	1613	100%	100%

Table 11. Intellectual Capital Disclosures 2002 - 2004

Intellectual Capital Components	Year						3 years average
	2002	2002 %	2003	2003 %	2004	2004 %	
Organizational Capital	92	8%	111	8%	118	7%	8%
Human Capital	93	8%	131	9%	128	8%	8%
Relational Capital	1014	85%	1143	83%	1367	85%	84%
	1199	100%	1385	100%	1613	100%	100%

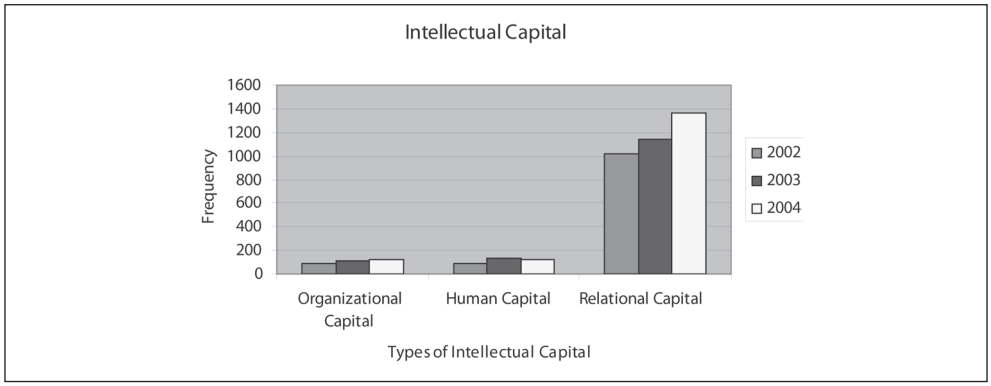
In summary, table 11 explains that Indonesian listed companies disclose more on relational capital compared to organizational and human capital during the last three years. Relational capital disclosures contribute an average of 84% of the IC disclosures for the last three years. Quite interestingly to note, companies share relatively the same proportion of disclosures for both organizational and human capital. This result reveal that Indonesian listed companies seems to concern and focus more on its external intellectual capital and less on internal intellectual capital.

Graph 1 below shows that intellectual capital disclosure for organizational capital, human capital, and relational capital had been increasing for three consecutive years. One could argue that Indonesian listed companies show more and more awareness and concern on the importance of intellectual capital and its disclosures.

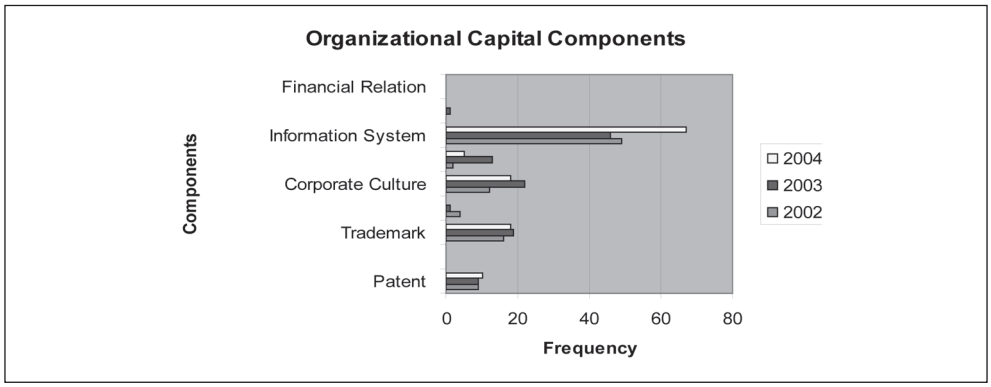
Looking at the intellectual capital types pattern in more detail, as illustrated in Graph 2, 3 and 4, one could see that disclosures on information system, education and customers dominate the those for organizational capital, human capital and relational capital respectively.

Expanding the content analysis to include the synonym of the variable as

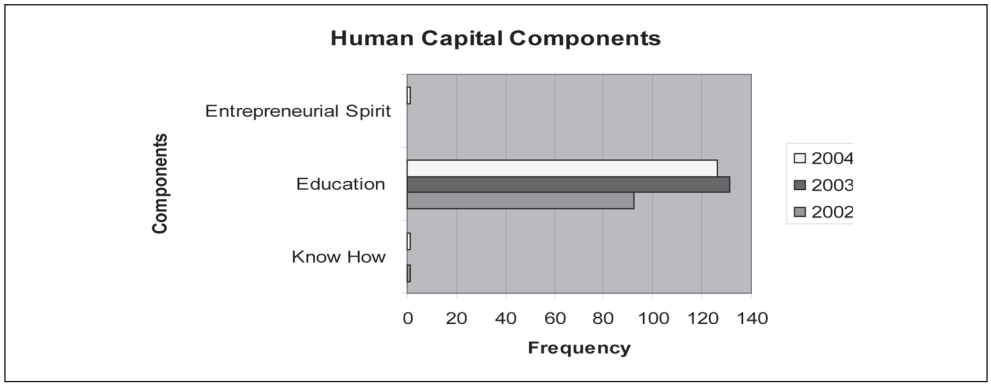
Graph 1. Frequency of IC Disclosures 2002 - 2004



Graph 2: Organizational Capital Components Disclosures 2002 - 2004



Graph 3. Human Capital Components Diclosures 2002 - 2003



the unit of analysis, the result shows a relatively similar pattern. Table 12 reveals that disclosures on relational capital are still dominant compared to those of organizational and human capital. Relational capital disclosures contribute as much as 71% average of the total disclosures for the last three years.

Table 13 (on page 139) explains the detail of the IC components disclosed. The

Graph 4. Relational Capital Components Disclosures 2002 - 2004

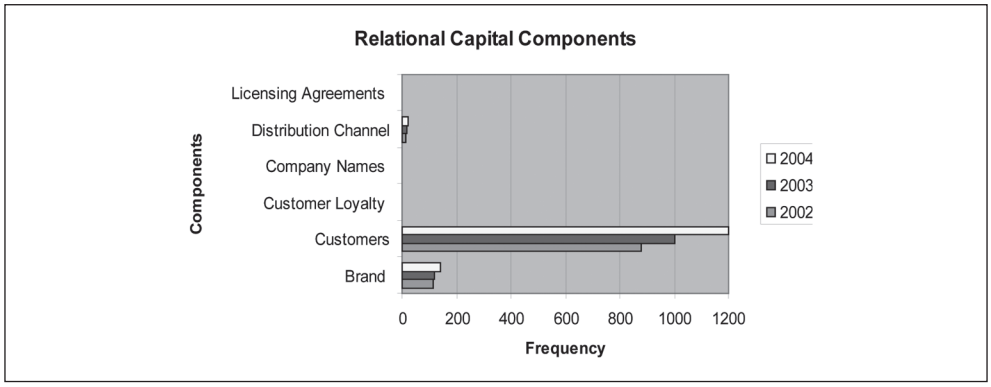


Table 12. Intellectual Capital Disclosures with Synonyms 2002 - 2004

Intellectual Capital Components	Year						3 years average
	2002	2002 %	2003	2003 %	2004	2004 %	
Organizational Capital	220	9.12%	247	9%	283	8.91%	9.11%
Human Capital	507	21.02%	506	19%	584	18.39%	19.48%
Relational Capital	1685	69.86%	1907	72%	2308	72.69%	71.41%
	2412	100.00%	2660	100%	3175	100.00%	100.00%

table conveys that Indonesian companies put a great emphasis on relational capital at first place, then human capital at the second place, and finally organizational capital at the third place. Within the organizational capital, information technology, trademark and corporate culture disclosures are dominant, while within relational capital component, disclosures on customers, consumers, co-operation and joint ventures. Disclosures on training and education contribute the most within human capital component. Graph 5 shows the yearly pattern of intellectual capital components. Meanwhile Graph 6 compares the pattern between IC disclosures with and without synonyms.

When using sentence as the unit of content analysis, it is quite interesting to note that some listed companies do disclose intellectual capital in their annual reports. Surprisingly, some companies even stated explicitly "intellectual capital" and "human capital" in the reports. What follows are some quotes from the annual report to indicate the intellectual capital disclosures in the form of sentences.

First of all, sample companies which disclose the importance of employee for long-term company sustainability:

> "As human resources are the company's most important assets, the focus of Antam's human resources strategy is continuous improvement" (Aneka Tambang, Annual Report, 2002).
>
> "Enhance and accelerate internal capabilities, human capital and organizational resources to generate healthy and sustainable business growth" (Medco Energy, Annual Report, 2003).
>
> "Indocement continues to regard its relationships with employees as vital to the long-term interests of the company' (Indocement, Annual Report, 2003).
>
> "Human Resources are a company's most valuable assets"(Kalbe Farma, Annual Report, 2002).

Secondly, sample companies which disclose their appreciation to external parties relationship.

> "The Company pays due attention on efforts to develop communities in its surroundings"

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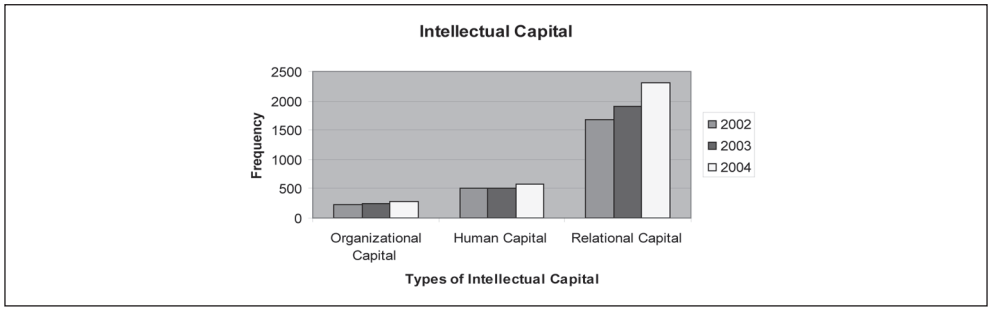
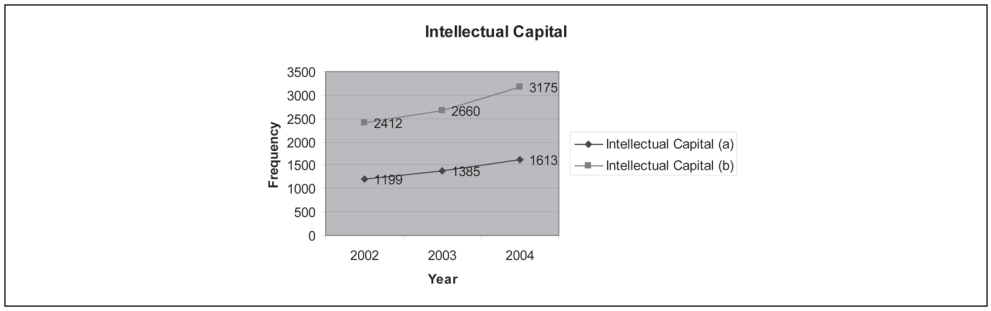
Table 13. Intellectual Capital Components Disclosures with Synonyms 2002 - 2004

Intellectual Capital Components	Year 2002	2002 %	2003	2003 %	2004	2004 %	3 years average
Organizational Capital							
Intellectual Property							
Patent	9	0.37%	9	0.34%	10	0.31%	0.34%
Copyright	0	0.00%	0	0.00%	0	0.00%	0.00%
Trademark	16	0.66%	19	0.71%	18	0.57%	0.65%
Infrastructure Assets							
Management Philosophy							
Management Philosophy	4	0.17%	1	0.04%	0	0.00%	0.07%
Corporate Phylosophy	0	0.00%	0	0.00%	0	0.00%	0.00%
Company Phylosophy	0	0.00%	1	0.04%	0	0.00%	0.01%
Business Philosophy	1	0.04%	0	0.00%	0	0.00%	0.01%
Corporate Culture							
Corporate Culture	12	0.50%	22	0.83%	18	0.57%	0.63%
Corporate Value	4	0.17%	13	0.49%	7	0.22%	0.29%
Organizational Value	0	0.00%	0	0.00%	0	0.00%	0.00%
Company Value	0	0.00%	1	0.04%	1	0.03%	0.02%
Management Processes							
Management Processes	2	0.08%	13	0.49%	5	0.16%	0.24%
Business Processes	3	0.12%	3	0.11%	5	0.16%	0.13%
Internal Processes	3	0.12%	1	0.04%	4	0.13%	0.10%
Information System							
Information System	49	2.03%	46	1.73%	67	2.11%	1.96%
Application System	12	0.50%	8	0.30%	15	0.47%	0.42%
Information Technology	105	4.35%	109	4.10%	133	4.19%	4.21%
Networking System	0	0.00%	1	0.04%	0	0.00%	0.01%
Financial Relation	0	0.00%	0	0.00%	0	0.00%	0.00%
Relational Capital							
Brand	115	4.77%	117	4.40%	139	4.38%	4.51%
Customers							
Customers	878	36.40%	1003	37.71%	1200	37.80%	37.30%
Consumers	251	10.41%	308	11.58%	470	14.80%	12.26%
Subscriber	72	2.99%	60	2.26%	95	2.99%	2.74%
Client	39	1.62%	6	0.23%	42	1.32%	1.06%
Buyer	16	0.66%	38	1.43%	25	0.79%	0.96%
Customer Loyalty	4	0.17%	2	0.08%	5	0.16%	0.13%
Distribution Channel							
Distribution Channel	14	0.58%	18	0.68%	21	0.66%	0.64%
Delivery Channel	46	1.91%	15	0.56%	18	0.57%	1.01%
Distribution System	4	0.17%	3	0.11%	3	0.09%	0.12%
Distribution Chain	1	0.04%	0	0.00%	0	0.00%	0.01%
Delivery System	4	0.17%	2	0.08%	4	0.13%	0.12%
Distribution Infrastructure	1	0.04%	0	0.00%	1	0.03%	0.02%
Distribution Network	21	0.87%	33	1.24%	37	1.17%	1.09%
Business Colaborations							
Business Collaborations	0	0.00%	0	0.00%	0	0.00%	0.00%
Strategic Collaborations	0	0.00%	0	0.00%	0	0.00%	0.00%
Partnership	27	1.12%	37	1.39%	39	1.23%	1.25%
Joint Venture	54	2.24%	90	3.38%	88	2.77%	2.80%
Cooperation	78	3.23%	126	4.74%	65	2.05%	3.34%
Strategic Alliances	23	0.95%	11	0.41%	28	0.88%	0.75%
Licensing Agreements	3	0.12%	3	0.11%	2	0.06%	0.10%
Favourable Contracts							
Favourable Contracts	0	0.00%	0	0.00%	0	0.00%	0.00%
Contract of Work	22	0.91%	25	0.94%	20	0.63%	0.83%
Long Term Contract	11	0.46%	10	0.38%	6	0.19%	0.34%
Franchising Agreements							
Franchising Agreements	0	0.00%	0	0.00%	0	0.00%	0.00%
Franchise Scheme	1	0.04%	0	0.00%		0.00%	0.01%
Human Capital							
Know How							
Know How	1	0.04%	0	0.00%	1	0.03%	0.02%
Knowledge	32	1.33%	32	1.20%	50	1.57%	1.37%
Expertise	21	0.87%	27	1.02%	37	1.17%	1.02%
Skills	69	2.86%	48	1.80%	52	1.64%	2.10%
Education							
Education	92	3.81%	131	4.92%	126	3.97%	4.24%
Training	201	8.33%	185	6.95%	230	7.24%	7.51%
Vocational Qualification	0	0.00%	0	0.00%	0	0.00%	0.00%
Work Related Knowledge	0	0.00%	0	0.00%	0	0.00%	0.00%
Work Related Competence	0	0.00%	0	0.00%	0	0.00%	0.00%
Entrepreneurial Spirit							
Entrepreneurial Spirit	0	0.00%	0	0.00%	1	0.03%	0.01%
Innovative	46	1.91%	42	1.58%	50	1.57%	1.69%
Concept	45	1.87%	41	1.54%	37	1.17%	1.52%
	2412	100%	2660	100%	3175	100%	100%

Graph 5: Intellectual Capital Disclosures with Synonyms 2002 - 2004



Graph 6: IC Disclosures vs IC Disclosures with Synonyms 2002 - 2004



Intellectual Capital (a), intellectual capital components as identified by Guthrie and Petty (2000)
Intellectual Capital (b), intellectual capital components as identified by Guthrie and Petty (2004) and the related synonyms

(United Tractors, Annual Report, 2004).

"For Kalbe, customer satisfaction is the key objective in implementing our strategies" (Kalbe Farma, Annual Report, 2002).

"Indosat always considers the surrounding communities as its main partners in achieving mutual prosperity" (Indosat, Annual Report, 2004).

Thirdly, sample companies which disclose the importance of information technology.

"Kalbe plans to increase the role of technology in all company activities. This in turn will increase market our competitive capabilities" (Kalbe Farma, Annual Report, 2002).

"Without doubt, IT is an essential tool in building Bank Niaga's competitive edge, the backbone of our Premier Retail Bank concept" (Bank Niaga, Annual Report, 2002)

"BCA has one of the most advanced banking technology platforms in Indonesia, facilitating an effective and integrated network that serves over two million transactions daily..." (BCA, Annual Report, 2004).

"Bank BNI has been continuously developing its information technology (IT) system to support its business which is compatible to integrated Bank BNI's IT architecture to improve its customer services" (Bank BNI, Annual Report, 2002).

Furthermore, when using paragraphs as the unit of content analysis, it is notable that listed companies do disclose the importance of intellectual capital for them as explained below.

First of all, sample companies which disclose the importance of human capital within their annual report.

"As strategic assets, our employees are the Bank's drivers of human and intellectual capital development, and every manager has the primary responsibility to be a

people manager. As strategic partners, our employees are expected to add value to the Bank, and their individual development is treated as an investment" (Bank Mandiri, Annual Report, 2003).

"Bank BNI recognizes that the crucial role of manpower plays as the Bank's primary resource in organizational value creation. Hence, management is committed to develop the Bank's manpower potential consistently and continuously" (Bank BNI, Annual Report, 2002 p.48).

"Indocement realizes that a company's long-term objectives cannot be achieved without competent employees, strong work ethics, good teamwork and a continuous learning process or improvement in every facet of operations. Throughout 2004,Indocement was heavily engaged in various strategic human resources programs as part of the efforts to achieve the vision of Indocement of becoming the leading, low-cost producer of consistently high-quality cement in the Indonesian market. Productivity, efficiency and sustainability are the three key indicators that are constantly addressed in the management of human resources by Indocement, in the face of an increasingly competitive market and escalating operating costs" (Indocement, Annual Report, 2004 p. 30).

Secondly, sample companies which disclose the strategic role of relation to relational capital within their annual report.

"As of December 31, 2002, we already had significant relationships with more than 20 Government-related entities and more than 50 corporate customers, including telecommunication companies such as PT Telekomunikasi Indonesia Tbk and PT Indonesian Satellite Corporation Tbk, the national airline PT Garuda Indonesia, cement manufacturers PT Semen Gresik Tbk and PT Semen Padang, natural resource companies Pertamina, PT Aneka Tambang Tbk and PT Tambang Timah Tbk and the state-owned power utility PT Perusahaan Listrik Negara. In addition, we have relationships with some of Indonesia's largest corporate groups including Djarum, Astra and Maspion" (Bank Mandiri, Annual Report, 2002).

"As a responsible Corporate Citizen, United Tractors constantly strives to contribute to the nation and the public by providing the best service to its customers and aiming for the best results in every endeavor. The Company realized that financing played an important role in gaining customers. In this case, United Tractors has built relationship and cooperated with some financial institutions, such as banks, leasing companies, as well as trading firms from Japan" (United Tractors, Annual Report, 2002).

"Indosat always considers the surrounding communities as its main partners in achieving mutual prosperity. Through various activities in 2004, we continued to participate in improving people's welfare and standard of living, particularly in the areas of education, social welfare and health care" (Indosat, Annual Report, 2004).

Thirdly, sample organizations which reveal the importance of organizational capital within their annual report.

"On the technology front, the Company has launched the implementation project of a Drilling Information System, which will enable the Company to improve accessibility, accuracy, and time of data supply, hence significantly improving the quality of critical decision-making process" (Medco Energy, Annual Report, 2003 p.42).

"In order to achieve the Bank's vision of becoming a Regional Champion Bank, Bank Mandiri has implemented strategic excellence as a means of ensuring the sustainability of our long-term growth and pro profitability. This sustainability can be achieved by implementing effective strategies within a conducive and adaptive organization culture. Implementation relies on three critical fundamentals: quality, cost effectiveness and speed. Each of Bank Mandiri 's products and services must engender superior quality, cost

effectiveness and reasonable speed, with the individual variables adjusted to achieve lasting customer satisfaction" (Bank Mandiri, Annual Report, 2004).

Research Question 3: Do Company Characteristics Such as Industry Category, Age, Ownership Structure and Market Capitalization Could Cause Different Frequency of Intellectual Capital Disclosures?

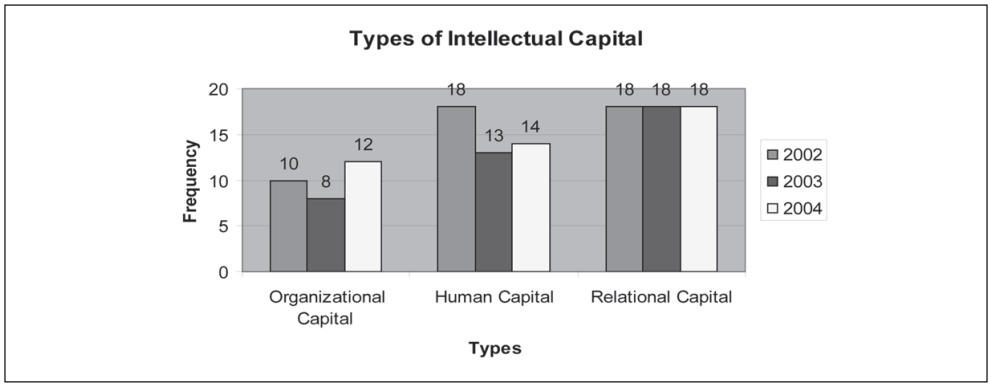
Industry Category

So far as the industry category is concerned, findings and discussion of the content analysis result are expressed in the following paragraph.

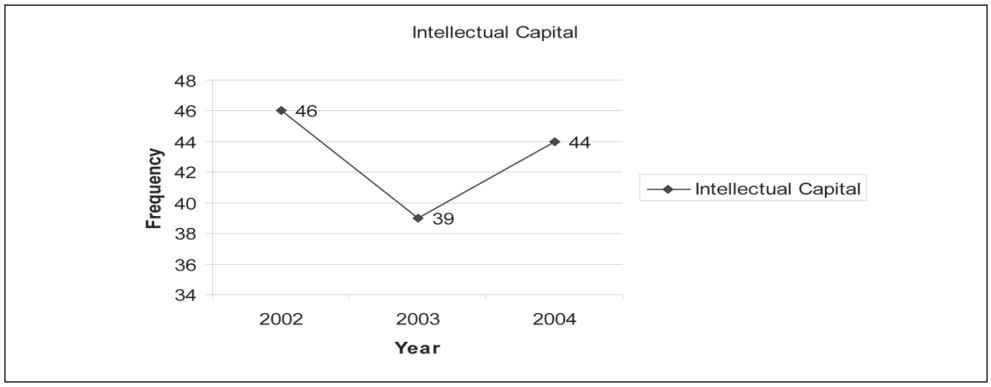
From Graph 7 it is clear that companies representing basic industry and chemicals disclosed more on relational capital compared to organizational and human capital. And as shown in Graph 8 the amount of intellectual capital disclosure is fluctuating over the years. It is also fair to note that disclosure of intellectual capital in this kind of industry is relatively unstructured and unpredicted. Meanwhile, the same findings apply to other industry categories in which companies disclose more on relational capital compared to both organizational and human capital.

However as far as the trend is concerned companies in the Basic as well as Consumer Good industry reveal similar pattern in which case there is a decrease of IC disclosures from 2002 to 2003 followed by an increase from 2003 to 2004. On

Graph 7. Intellectual Capital Disclosures based on Industry Category 2002 - 2004



Graph 8. Frequency of Intellectual Capital Disclosures based on Industry Category 2002 – 2004

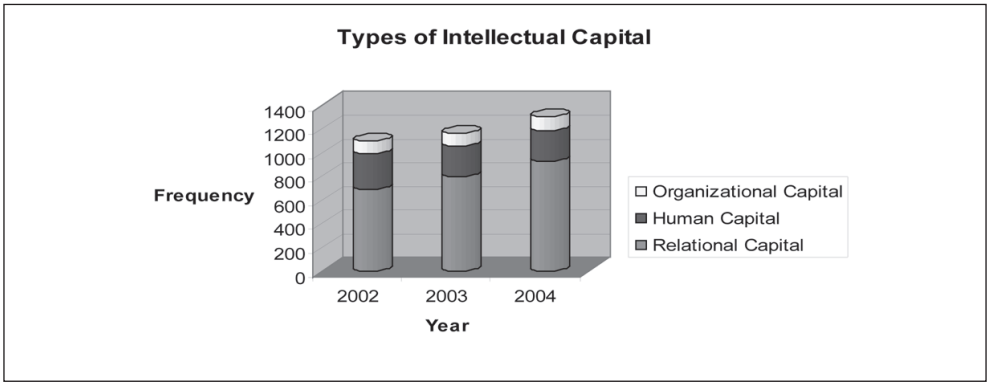


the other hand companies in the Finance, Infrastructure, Utilities, and Transportation, Mining industry shows an increasing trend from 2002 to 2004, while those in Trade, Service, and Investment, quite surprisingly shows a declining trend from 2002 to 2004. In other words, one could argue that there could be no fixed pattern of IC disclosures across all industries.

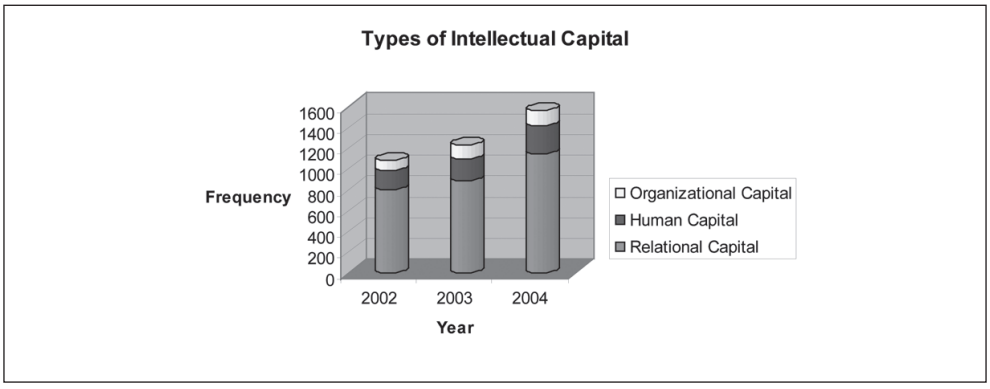
Human capital disclosures indicates increasing trend over the last three years for companies operating in Finance, Consumers Goods, Infrastructure, Utilities and Transportation, while for other industries such as Basic, Mining and Trade, Service, and Investment, it surprisingly shows decreasing trend. Except for companies operating in Mining industry, organizational capital disclosures reveals increasing pattern for other companies operating in other industries category. One could argue that there is more and more concern on the importance of internal capability of the companies to win the business competition.

As far as relational capital disclosures are concerned, except for companies operating in Trade, Service and Investment industry which shows decreasing trend, companies operating in all other industry categories indicates increasing trend in which those operating in Mining industry indicate the most significant positive trend. It is also worth to note that different from intellectual capital disclosures pattern in other industry categories which shows big gap between the frequency of relational capital disclosures and that of other two (organizational and human capital), companies operating in Trade, Service,

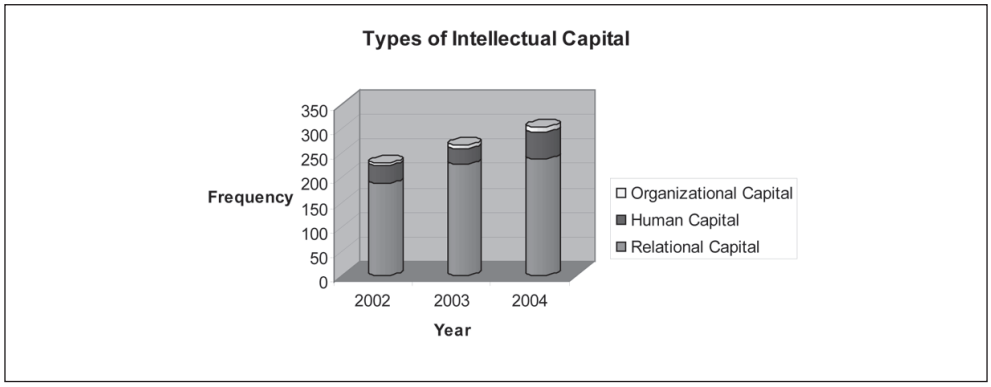
Graph 9. IC Disclosures of Companies with less than 40 years old 2002 - 2004



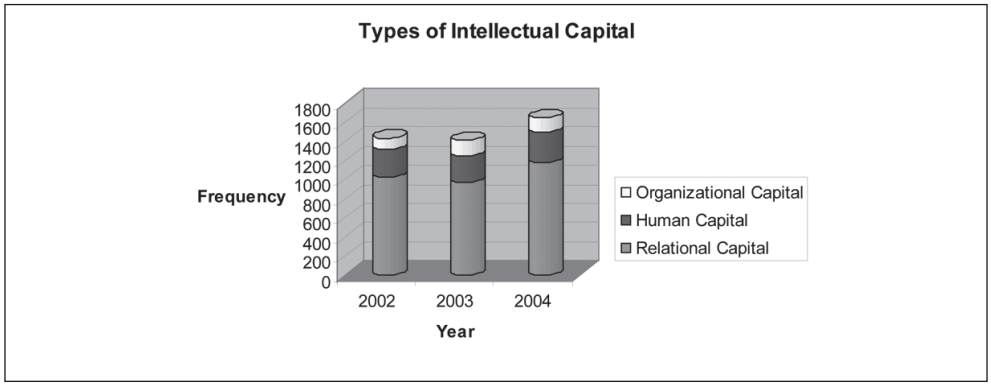
Graph 10. IC Disclosures of Companies between 40 – 80 years old 2002 - 2004



Graph 11: IC Disclosures of Companies with More Than 80 Years Old 2002 - 2004



Graph 12. IC Disclosures of Listed Private-Owned Companies



and Investment industry disclose as many relational capital as human capital.

Finally, there are two industry categories i.e. Finance as well as Infrastructure, Utilities and Transportation indicate increasing trend for all components of intellectual capital disclosures. More graphs to support this phenomenon could be found in attachment 1.

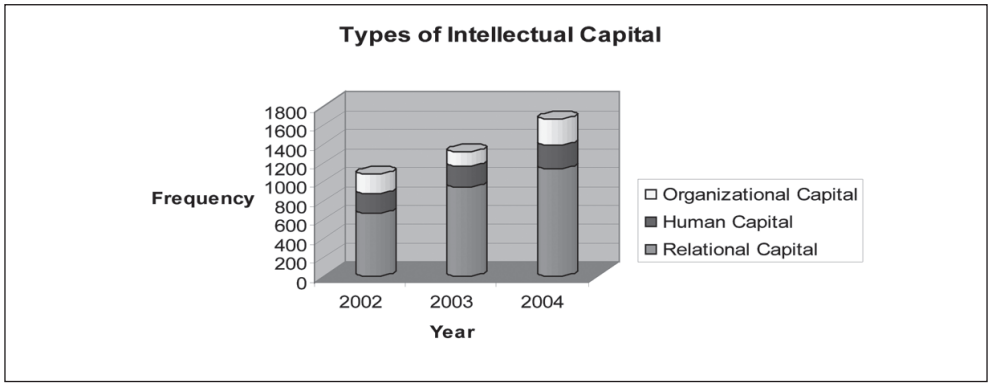
Companies' Age

As shown in the following graphs, for all age categories, there is an increasing pattern for intellectual capital disclosures in which relational capital was ranked the first, followed by human capital and then organizational capital. However, they have different average increasing rate per year. Companies with less than 40 years age have an average of 6% increasing rate per year, while those with 41 to 80 years age having of intellectual disclosure 23% increasing rate and finally those with more than 80 years age having an average of 15% increasing rate. In other words, one could argue that companies in the "middle" age seems to be more concerned on the intellectual capital disclosures compared to those in the "young" and "old" age.

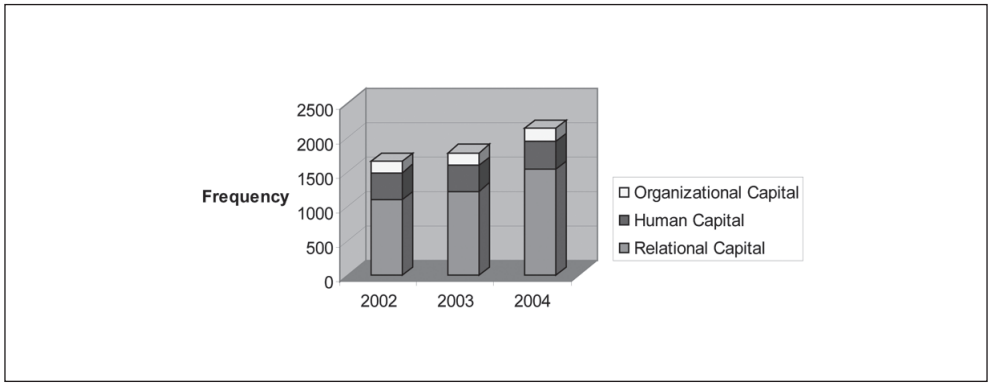
Ownership Characteristic

From Graph 11 and 12, it could be seen that intellectual capital disclosures of listed private-owned companies show a slight decrease from 2002 to 2003 and then increase in 2004. On the other hand,

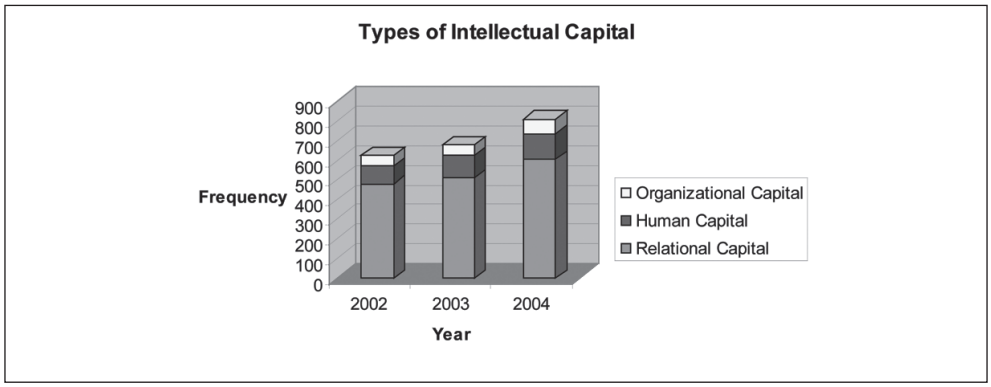
Graph 13. IC Disclosures of Listed State-Owned Companies



Graph 14. IC Disclosures of Small-Sized Companies 2002 - 2004



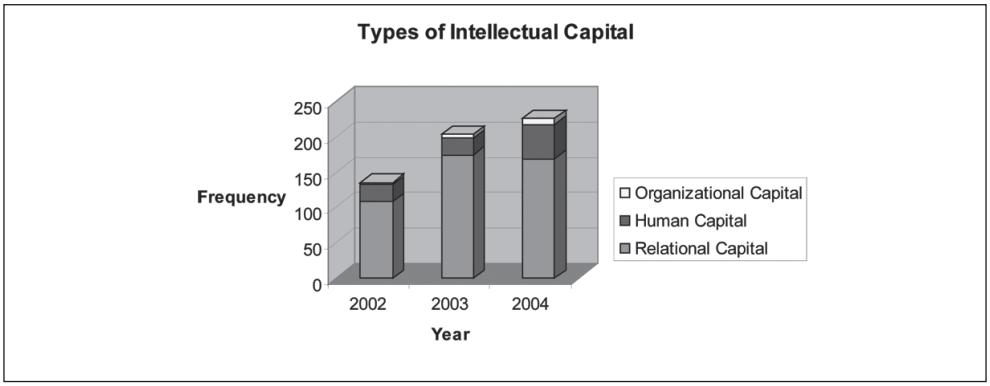
Graph 15. IC Disclosures of Medium-Sized Companies 2002 - 2004



intellectual capital disclosures of listed state-owned companies indicate an average of 37% increasing rate from 2002 to 2004.

It is also quite interesting to note that listed state-owned companies disclose intellectual capital more than listed private-owned companies do. For example, in 2004 listed state-owned companies had approximately 200 disclosures of intellectual capital per company, while listed private-owned companies had only 106 disclosures. The same pattern applies

Graph 16. IC Disclosures for Large-Sized Companies 2002 - 2004



to year 2002 and 2003 when the frequency of intellectual capital disclosures of listed state-owned companies exceed quite significantly those of listed private-owned companies.

Market Capitalization

In this article, as far as market capitalization is concerned, sample companies are classified into three categories: small, medium, and large. The small classification is for companies that have market capitalization less then or equal to IDR 30.000.000.000 (19 sample companies). The medium classification is for those that have market capitalization more than IDR 30.000.000.000 but less then IDR 60.000.000.000 (3 companies) and the large classification is for those that have market capitalization more than or equal to IDR 60.000.000.000 (only 1 company).

Graphs 13, 14 and 15 do reveal an increasing trend in intellectual capital disclosures of companies in each market capitalization category. However, in average medium-sized companies have the highest frequency of intellectual capital disclosures followed by large-sized and then small-sized ones during the last three years. For example, medium-sized companies have an average of 258 intellectual capital disclosures per company, large-sized company only has an average of 210 disclosures and small-sized companies only have an average of 105 disclosures.

Comparison with Findings of Research in Other Countries

Compared to research in other countries, research findings on Indonesian case have both similarities and differences. Next paragraph will discuss about it.

First of all, similar to other research findings around the world Indonesian companies do have significant intellectual capital. And alike with Bozzolan (2003) studies, the Indonesian companies tend to disclose more of relational capital. It is different with that of Guthrie and Petty (2000) in Australian case where human resources, technology, intellectual property rights, and organizational and workplace structure are the main intellectual capital components disclosed.

Secondly, similar to Guthrie and Petty (2000) studies, Indonesian companies do not seem to disclose intellectual capital within a consistent structure. And there is also no joint agreed framework for disclosing intellectual capital provided by Indonesian companies as well as the accounting profession.

Thirdly, similar to Brennan (2001) studies, the intellectual capital assets disclosed in annual report are most likely in qualitative format.

Fourthly, different with Bozzolan (2003) studies finding, company characteristics such as industry category, age, ownership characteristic, and market capitalization seem not influence the level of IC disclosures by sample companies. Nevertheless, Indonesian companies seem to show an increasing pattern of intellectual capital disclosures for all categories.

Conclusion

The study concludes five results. First, Indonesian companies have significant intellectual capital. Second, Indonesian companies do aware and disclose intellectual capital. Third, even though the trend in disclosing intellectual capital as a whole is generally increasing, there is no conclusive and predictable pattern found. Fourth, the main disclosure on intellectual capital by Indonesian companies is relational capital, followed by human capital and organizational capital. Fifth, the intellectual capital components identified is inconsistent as no framework available in helping the companies discloses intellectual capital. Sixth, most of the intellectual capital components identified are in qualitative format. Finally, even though the study did not find conclusive evidence regarding the relationship between intellectual capital disclosure and company characteristics such as industry, age, ownership structure, and market capitalization, the following issue is worth noting:

- As far as the industry is concerned, except for companies operating in Mining industry, organizational capital disclosures reveals increasing pattern in other companies operating in all other industries categories. Furthermore, relational capital disclosures of companies operating in all industry categories, except for Trade, Service and Investment Industry, indicate increasing trend in which those operating in Mining industry indicate the most significant positive trend. It is also worth to note that different from intellectual capital disclosures pattern in other industry categories which show big gap between the frequency of relational capital disclosures and that of other two (organizational and human capital), companies operating in Trade, Service, and Investment industry disclose as many relational capital as human capital. Finally, there are two industry categories i.e. Finance as well as Infrastructure, Utilities and Transportation which indicate increasing trend for all components of intellectual capital disclosures.
- As far as the age is concerned, it seems that companies in the "middle" age are more concerned on the intellectual capital disclosures compared to those in the "young" and "old" age.
- It is also quite interesting to note that listed state-owned companies disclose intellectual capital more than listed private-owned companies do.
- Even though there is an generally increasing trend in intellectual capital disclosures of companies in each market capitalization category, medium-sized companies have the highest frequency of intellectual capital disclosures.

Limitations

The researchers face several limitations in conducting the study as follows:

- Sample companies for this research are limited, therefore findings cannot be generalized to the whole Indonesian listed companies
- The term "intellectual capital" is new.

In that case, there is a probability that Indonesian companies do not aware and understand of the term.

- It is also possible to have listed companies disclose things that relate to intellectual capital but do not disclose the term explicitly.
- Companies may state different term of intellectual capital component as there is no standardized framework in reporting intellectual capital.
- Companies may have different perception and understanding of intellectual capital as there is no exact definition of intellectual capital.
- No exact definition on intellectual capital and guideline for intellectual capital guidelines provided by the accounting profession or other authoritative bodies.
- Incomplete resources of annual reports that Jakarta Stock Exchange possessed.
- Some organizations do not have bilingual (i.e. English and Bahasa Indonesia) annual report for extensive content analysis purpose.

Avenues for Further Research

The study reported here is exploratory in nature. There is scope to extend the work conducted in several ways:

First, further thorough investigation needs to be conducted to find significant relationship between the level of intellectual capital disclosures and company characteristics by comparing and contrasting more data from more sample companies covering longer period of time

Secondly, findings of this research study needs to be further explored by interviewing managers of the sample companies and other relevant stakeholders in order to get more valid and reliable as well as comprehensive finding.

Thirdly, future research could also be expanded by taking into account the quality of the disclosure in the annual reports on a case study basis in order to get richer and deeper understanding of how companies reporting their IC.

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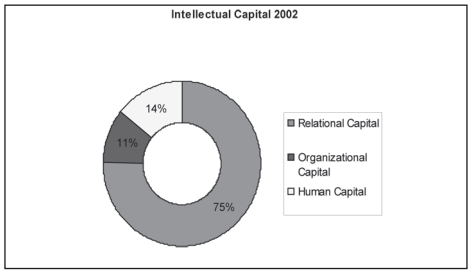
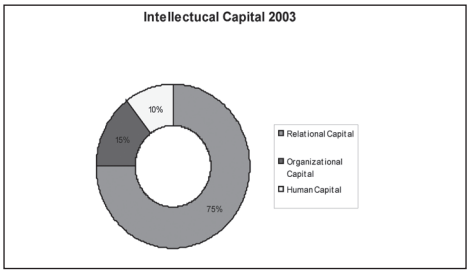
Attachment: Intellectual Capital Disclosures by Industry Category

Intellectual Capital Disclosures of Consumer Goods Industry 2002 – 2004

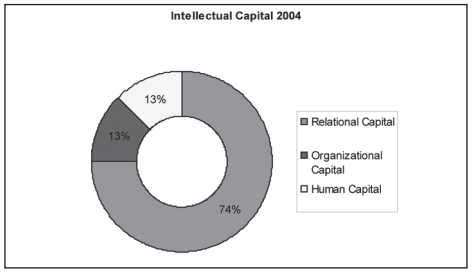
Graph 1



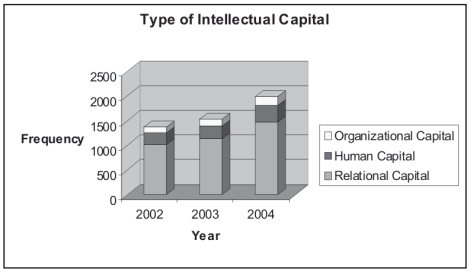
Graph 2



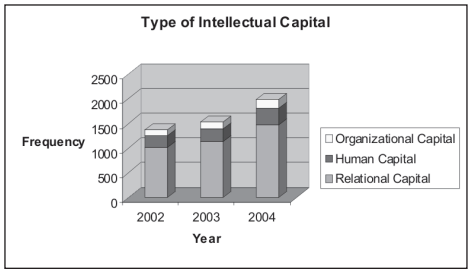
Graph 3



Graph 4

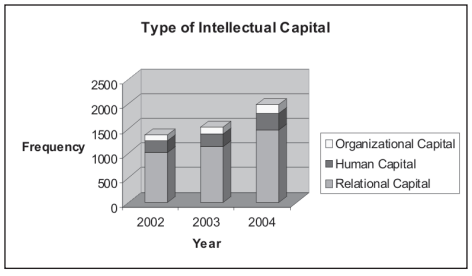


Graph 5

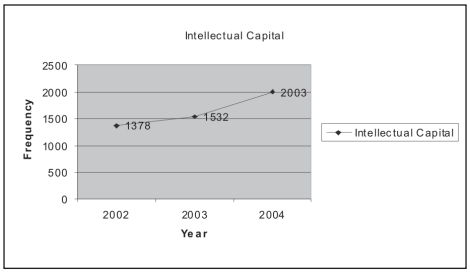


Intellectual Capital Disclosures of Finance Industry 2002 – 2004

Graph 6

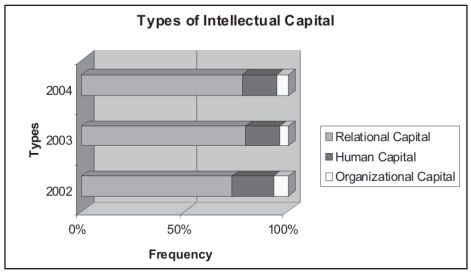


Graph 7

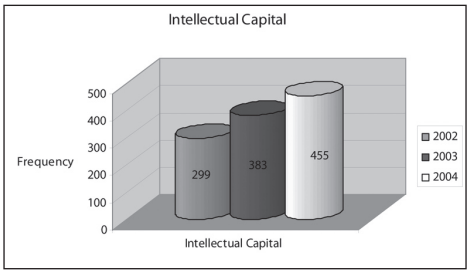


Intellectual Capital Disclosures of Infrastructure, Utilities, and Transportation Industry 2002 – 2004

Graph 8

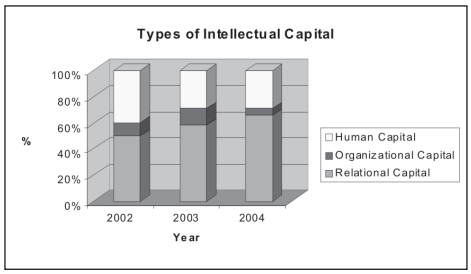


Graph 9

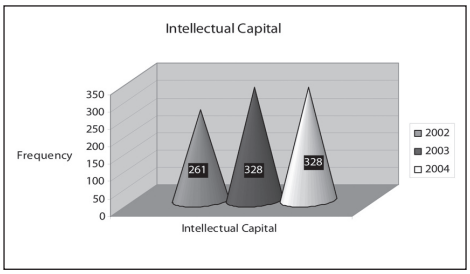


Intellectual Capital Disclosures of Mining Industry 2002 - 2004

Graph 10

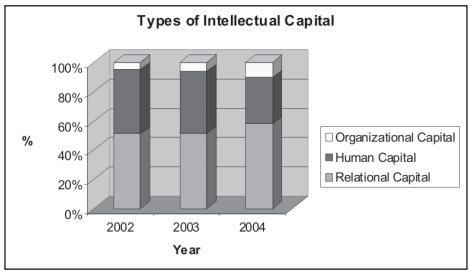


Graph 11

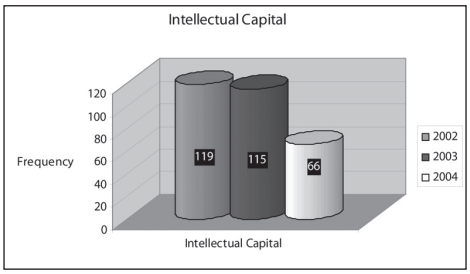


Intellectual Capital Disclosures of Trade, Service, and Investment Industry 2002 - 2004

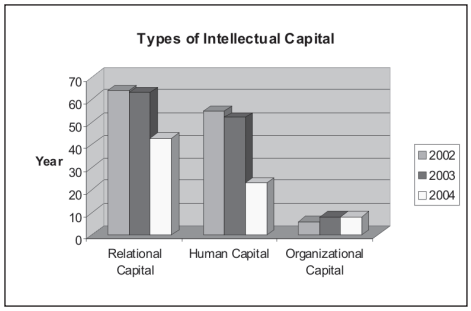
Graph 12



Graph 13



Graph 14



Graph 15