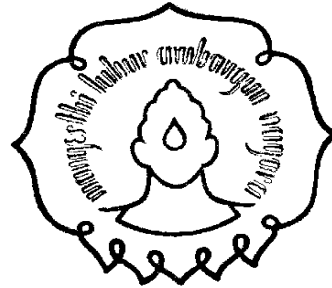


# **EFFECT OWNERSHIP STRUCTURE ON INTELLECTUAL CAPITAL DISCLOSURE IN ISLAMIC BANKING: EVIDENCE IN ASIA**



**Thesis**

**Submitted as a partial fulfilment for the economics bachelor degree in accounting department,  
economics faculty, Sebelas Maret University**

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**ECONOMICS FACULTY  
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## ENDORSEMENT

Has been approved and accepted by both the thesis examiners as a partial fulfilment for the economics bachelor degree in accounting department, Faculty of Economics, Sebelas Maret University.

Surakarta, August ... ,2009

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**IN ISLAMIC BANKING:**

**EVIDENCE IN ASIA**

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**MOTTO**

Which then, of the favours of your Lord,  
will you deny?

**(Ar Rahman: 25)**

**Give thanks to Alloh**

Give thanks to Alloh,  
for the moon and the stars  
prays in all day full,  
what is and what was  
take hold of your iman  
don't giving to shaitan

you who believe please give thanks to Alloh.  
Allahu Ghafur Allahu Rahim Allahu yuhibul al Mohsinin,  
huwa Khalikhun huwa Razikhun wahuha ala kulli shaiin khadir

Allah is Ghafur Alloh is Rahim Alloh is the one who loves the Muhsinin,  
He is a creater, He is a sistainer and he is the one who has power over all.

## DEDICATION

This thesis dedicated by the author to:

- Allah SWT,
- My Be loved Mother, Mother, Mother, and Father,
- Islamic Economics Strugglers,
- Accounting Department, Economics Faculty, Sebelas  
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- Me, I, and My self for never ending *ikhtiar*

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## CHAPTER I

### INTRODUCTION

#### **A. Background**

Service industry is an industry which can obtain income by doing service activities as its industry's output. Service activities in the service industry represent its 'knowledge' (Widyaningrum, 2004). In other words, the 'knowledge' makes the major incomes in service industries. Therefore, 'knowledge' is critical asset for the service industry that must be reported to both shareholders and its stakeholders. However, the 'knowledge' which is an important component of the industries can not be found in the reporting of company assets in the financial reports in the traditional accounting.

On the other hands, 'knowledge' in the industry is an important asset. However, inability to report all financial assets owned by companies in the concept and practice happened in traditional accounting. There were failures of companies in reporting knowledge as company's assets. It caused that knowledge was part of intangible assets which was not of traditional accounting's focus.

Since in the 1990's, attention to the intangible assets management practice has increased dramatically (Harrison and Sullivan, 2000). Petty and Guthrie (2000) and Sullivan and Sullivan (2000) mentioned that one of approaches that can be used in the assessment and measurement of intangible assets is intellectual capital. The main focus of intangible assets was the intellectual capital management, information technology, sociology, and accounting [(Petty and Guthrie, 2000) and (Sullivan and Sullivan, 2000)].

Knowledge, innovation, and skills which were owned by companies were the components of the intellectual capital (Li, et al, 2008). Petty and Guthrie (2000), Wallman (1996) and Stewart (1997) concluded that knowledge and intellectual capital could caused greater significance and become an



essential commodity on the value of business size compared to the company's financial size.

Cerbioni and Parbonetti (2007) stated that intellectual capital disclosure was part of the voluntary disclosure. Intellectual capital was available valuable information for investors. It could help them to reduce uncertainty about future prospects and to facilitate the assessment of company's accuracy (Bukh, 2003). Intellectual capital disclosure also may indicate better financial performance (Saleh, et. al., 2008).

The Influence intellectual capital in creating and sustaining competitive advantage and shareholder value increased significantly (Tayles, et. al, 2007). Financial reports failed describing the extent of value creation on intangible assets (Lev and Zarowin, 1999). It was also showed that asymmetry information increased both companies and the user (Barth, Kasznik, and Mc Nichols, 2001), and created inefficiency in the resources allocation in capital market (Li, et. al, 2008).

The world economics developments were shown by increasing of companies in which worked by using technology. Technology used by the company as quality improvement indicated a company's value added (Saleh, et. al, 2008). Some researchers had found that there was a large gap both market value and book value disclosed by the companies. It was caused of company failed on reporting hidden value in annual report (Brenan and Cornell, 2000, and Mouritsen et. al, 2004). Hidden value represented as intellectual capital.

Saleh et. al (2008) stated that intellectual capital became an important source on companies in achieved economic success. In addition, intellectual capital was important role in company's value creation. It was caused that intellectual capital also one of the competitive benefits in the market. It was also showed the better of financial performance. Intellectual capital was consists of human capital, capital structure (internal structure), and relational capital (external structure). Human capital represented as innovation, flexibility, tolerance, motivation, satisfaction, learning capacity, loyalty, and

training and formal education was owned by employees (CIMA, 2001). Internal Structure of the organization could be defined as knowledge of organization, such as intellectual properties, contracts, database, information, systems, culture, procedures, manuals, systems and routines administrative, and best practices (CIMA, 2001).

One of the industries which used knowledge in getting business income is the financial institution. Bozolan et. al (2003) stated that financial institutions require a different reporting with other business sectors. Therefore, Brennan (2001) stated that financial institutions have lower proportion of intangible assets and have less motivation to report on the voluntary intellectual capital in annual reports. One of the financial institutions is bank.

Firer and William (2003) stated that the bank was one of the most intensive intellectual capital's industries. In addition, the overall bank has employee homogeneity than the other economic sectors (Kubo and Saka, 2002). Banks are the institutions that play on funds flow in economics role as the intermediation function. The bank problems arise may cause by problems on customers, investors, or other parties to do bank services. The following sentence is an example of intellectual capital disclosure in Islamic bank.

“To make systematic improvements in all areas of operational performance through the development and implementation of quality systems and processes which offer value for the customer” (Qatar Islamic Bank Annual Report, 2006, page 21).

These sentences above show that Qatar Islamic Bank as Islamic financial institution had disclosed information about (1) systems (internal or structural intellectual capital represented by phrase “To make systematic improvements in all areas of operational performance through the development and implementation of quality systems and processes” and (2) customer (relational or external capital represented by phrase “value for the customer”).

The emergence of Islamic banks was showed by establishment Ghamr Mit Bank in 1976. In this

modern era, Islamic banking had become global phenomenon, including in minority Moslem society countries. Based on Mc Kinsey's research (2005) reported by Agustianto (2009), stated that total assets of global Islamic banking market reached 0.75 billion U.S. dollars in 2006. In 2010, it was estimated would reach one billion U.S. dollars. Growth rate of 100 Islamic bank in the world reached 27 percent annually. It was higher than growth rate of 100 largest conventional banks, which only reached 19 percent per year (Agustianto, 2009).

Latest research done by the Asian Banker Group (2008) mentioned that there were 100 Islamic banks in the world. Asian Banker Group (2008) stated that Asia was profitable market area for Islamic banking. Based on the results of Merrill Lynch and Cap Gemini's research (2008) which stated that the total wealth in the Asia-Pacific region grew 8.5 percents after the Middle East countries created a big advantage in Islamic bank (Beng, 2008).

Jensen and Meckling (1976) argued that the greater disclosure will reduce investor uncertainty gain and reducing cost of capital the company. Gibbins et.al (1990) mentioned that the voluntary disclosure process provides increased response of the disclosure both internal and external. Accountability in Islam was reflected in the commitment to provide services needed by the Muslims and the community through the disclosure (Haniffa and Hudaib, 2004). Unlike conventional banks, which only focused on profit, Islamic banks were expected on perform the necessary disclosures to help users create reports in a decision in the knowledge based economy. According to Siddiqi (1995) which stated that Islamic financial institution include Islamic bank must comply with the percepts of *Shari'ah Islami'ah* in their all activities including reporting. Moreover, disclosure reflects implementation the role of Islam in economic regeneration and social justice. Haniffa and Hudaib (2004) also argued that Islamic financial institutions need to disclose information. It was caused by importance to support religious decision by providing accountability to Alloh SWT and society (*Hablum minnalloh* and

*Hamblum minnnas* concept).

Harahap and Gunawan (2006) studied the voluntary disclosure practice in Islamic bank in Indonesia, Malaysia, and Australia. Results of their research showed that in general, Islamic bank in these countries were dominated by voluntary disclosures include intellectual capital disclosure. Li, et. al (2008) studied the relationship of corporate governance on intellectual capital disclosure in the different types of companies in the United Kingdom. Their samples were non financial and financial institution's annual reports. By using the content analysis method, Li, et. al (2008) were chosen intellectual capital as major topic in their research. Differences of this research to Li, et. al (2008) research was both the corporate governance's proxy and research samples taken. The title of this research is "**Effect Ownership Structure on Intellectual Capital Disclosure in Islamic Bank: Evidence in Asia**". This research examined the influence of ownership structure on intellectual capital disclosure in Islamic banking in Asia.

## **B. Problem Formulation**

Based on the background developed before, problem formulation can be formulated as: Is there effect ownership structure on intellectual capital disclosure in Islamic bank in Asia?

## **C. Research Objectives**

Objective will achieve in this research is to find the effect of ownership structure on the intellectual capital disclosure Islamic bank in Asia.

## **D. Benefit of Research**

The benefits that can be drawn from this research are as follows:

### **D.1 Academicians**

For academicians, this research useful as:

- a. reference and contribution on intellectual capital disclosure research in Islamic banking,
- b. the future research to develop this research topics, from the findings, limitations, and recommendations

## **D.2 Islamic Banking Industry**

For Islamic banking industry, this research useful for providing knowledge about the practice of intellectual capital disclosure. It also can be used by Islamic banking management in consideration about intellectual capital disclosure practice and policy.

## **D.3 Regulator and Government**

For regulators that includes the central bank, the minister for finance, securities exchange, and accountants in each country's sample, this research can be use to:

- D. sets of policies or regulations and disclosure standards for intellectual capital disclosure practices to both Islamic banks and others Islamic financial sectors.

## **E. Writing Systematic**

The writing systematically as follows:

CHAPTER I	:	Introduction
		This chapter includes the background, the problem formulation, research objectives, research benefits and writing systematic
CHAPTER II	:	Theory Development
		This chapter discusses the theoretical framework and hypothesis development.
CHAPTER III	:	Research Methodology
		This chapter contains the research design, sampling techniques; variables measurement; research instruments; data source; data collection methods; and data analysis methods.
CHAPTER IV	:	Data Analysis and Discussion
		This chapter discusses the data used, data

CHAPTER V : processing models and results of data analysis.  
Conclusion  
This chapter contains conclusions, research limitations, and suggestions were submitted for further research.

## **CHAPTER II**

### **THEORY DEVELOPMENT**

#### **L. Intellectual Capital Disclosure (ICD)**

As CIMA (2001) mentioned that intellectual capital was possession of knowledge and experience, professional knowledge and skill, good relationship, and technological capacities, which when applied will give organization competitive advantage. Haniffa and Hudaib (2004) formulated that those definition means:

- m. Resources of intellectual in organization, such as technology, idea, innovations and skill.
- n. Ability of intellectual capital to make competitive advantage. Edvisson and Sullivan (1996) also argue that intellectual capital is knowledge that can be converted into value. Moreover, Andriesen and Stam (2005) argue that intellectual capital reflects intangible resources. They were available

to an organization and gave relative advantage and produced future benefit.

Stewart (1991), Edvisson and Sullivan (1996), Edvisson and Malone (1997), Bontis (1998), Sveiby (1997) and Li, et. al (2008) were classifying intellectual capital into three form as human capital (HIC), structural capital (SIC), and relational capital (RIC).

Information on intellectual capital was important for stakeholders (Li et al, 2008). In the agency context, Jensen and Meckling (1976) showed that greater disclosure could reduce uncertainty on investors and reduced cost of capital the company. Therefore, managers should be willing to reveal the information to the intellectual capital in order to increase the company's value, providing investors with the presumption both company's financial position and reduce the highest share volatility (Li, et al, 2008).

Barth, et. al (2001) found that the scope of the advertising analysis was greater for companies which invest in research and development. While other empirical studies found there were the positive impact on emergence on stock prices over a specific indicator of intellectual capital. They were in research and development's expenditure (Amir and Lev, 1996), the capitalization in software development (Aboody and Lev, 1998), and customer satisfaction (Ittner and Larker, 1998).

Abeysekera (2006) stated that the development theoretical framework in intellectual capital in the infancy period. Definition of intellectual capital made by expert was not the same, but the conclusion can be drawn that intellectual capital is part of intangible assets. Mouritsen (1998) stated that intellectual capital was the broad knowledge of the organization capacity. A broad knowledge of the organization was beneficial for the organization changes in the business world. The simplest example was requirement on innovated to produce their products which were declined in their prior position.

Further, there was a notable diversity intellectual capital was defined in. Guthrie and Petty (2000) were alluded the fact that intellectual capital disclosure carried greater importance now than in the past

due to the dominant industry sectors shifting from manufacturing to high technology, financial and insurance services. There was general opinion of many experts and organizations can be concluded that the intellectual capital consists on the outline below. The general definition was developed by Sveiby (1997) were consists of:

**a. Human capital**

Human Capital was the knowledge owned by employees such innovation, flexibility, tolerance, motivation, satisfaction, learning capacity, loyalty, education and training as well as formal employees. Dharma (2004) argued that human capital was capability accumulation, capacity and opportunities of the members in the organization.

Human capital was the lifeblood in the intellectual capital, the source of innovation and improvement, although it was a component which was difficult to measure (Steward, 1997). Fitz-Enz (2000) in Ongkoharjo, et. al (2008) described human capital as a combination of three factors, such as: 1) the nature or character was brought to the work, for example intellectual, energy, positive attitude, reliability, and commitment, 2) a person's ability to learn, the intellect, imagination, creativity and talent, and 3) the motivation to share information and knowledge, the team spirit and goal orientation.

**b. Structural capital**

Structural capital was the company's assets such ownership system software, network distribution, and supply chain companies. Petrash (1996) stated that structural capital included ability of the company in reaching the market. Widyaningrum (2004) said that structural capital was availability of operational property supporting the performance of employees.

**c. Relational Capital or Customer Capital**

Relational capital or customer capital was a good relationship woven by the company with external parties (Petrash, 1996), and also knowledge about the market chain flow such as products, customers,



supplier, and establish good relations with the government (Bontis, 2000).

### **O. Ownership Structure**

Jensen and Meckling (1976) stated that there was relationship of agency contract between one party interest and another party. Agency cost increased if ownership structure became more diffuse (Fama and Jensen, 1983). It caused the firms were subject of interest conflict more than concentrated ownership structure companies. Firms with higher ownership diffusion had more incentives to disclose information voluntarily and reduce agency cost (Fama and Jensen, 1983).

### **P. Firm's Size**

Firm's Size was potential variable in the disclosure topics. Singhvi and Desai (1971), Cooke (1992), Wallace et al. (1994), Craig and Diga (1998) found the relationship between the firm's size and the level of disclosure. In some research, found positive relationship between company size and the vastness. Freedman and Jaggi (2005) found that the larger companies whose more activity, it will be more effect on stakeholders. So, it is predicted that there is positive influence between firm's size and intellectual capital disclosure.

### **Q. Profitability**

In the presence of disclosure cost, firms whose performance exceeds the threshold will disclose. While, the below threshold firm will not (Verrecchia, 1983). Baginski et. al (2000) found that causal in which attribution of voluntary disclosure was earning management. Moreover, Baginski et. al (2000) argued that voluntary information disclosed more for external user while forecast news was bad. It can be used to expand financial reporting models. On other words, can be stated that according to Baginski (2000) there was more voluntary disclosure while firm's both profitability and forecast news was not better.

Shingvi and Desai (1997) found positive relationship between profitability and disclosure.

Companies which had higher profitability was better disclose than company with lower profitability ((Ullmann, 1985; Haniffa and Cooke, 2005). For this control variable, researcher predicted that profitability has positive association on the intellectual capital disclosure.

### **R. Company Age**

Owusu-Ansah (1998), Akhtaruddin (2005) stated that the vastness of companies phase affected by age includes the development and growth. Hossain (2008) researched sweep disclosures by bank and concluded that there was negative relationship between company's ages to the broad disclosure. So, it is predicted there is negative association between company age and intellectual capital disclosure.

### **S. Leverage**

Jensen and Meckling (1976), Smith and Warner (1979) in Karpik and Belkaoui (1989) stated that there was agreement in the level of debt leverage intended limiting management's ability to create a wealth transfer between shareholders and bond holders. Mangena and Pike (2005) stated that leverage affect the levels of agency problem because of the disclosure in line to the increasing in level of debt. Tan and Tower (1999) in Mangena and Pike (2005) reported that there was negative association between leverage and levels of disclosure by using Finnish, Singapore and Australia companies. According to these researches, it can be predicted that there is negative influence between leverage and intellectual capital disclosure.

### **T. Auditor Type**

Large and well-known auditing firms may incite companies to disclose more information (Singhvi and Desai, 1971, Firth, 1979). The assertion of large auditing firms promote high levels of disclosure was supported by several arguments. Dumotier (1998), Raffournier (1998), Chalmers and Godfrey (2004) argued that the firms in which used large auditing firm was preserved their reputation. It

caused large auditing firms have greater expertise (Mora and Rees,1998). Malone, et. al (1993) found that the smaller auditing firm were often sensitive to the economics consequences of the loss client. According to these researches, researcher can predict that intellectual capital disclosure negative significant influenced firm audit.

#### **U. Role of Duality**

Decision-making power resulting from concentration role of duality could impair the board's oversight and governance roles, including disclosure policies. Separation of the two roles provides the essential checks and balances on management behavior (Blackburn, 1994). Haniffa and Cooke (2002) found that there was ineffective monitoring of managerial opportunistic while CEO entrancement. According to these researches, it can be predicted that there is negative influence between role of duality and intellectual capital disclosure.

#### **V. Hypothesis Formulation**

Eng and Mak (2003) argued that ownership structure therefore will influence the level of monitoring and voluntary disclosure. Although, some evidence happened in Raffournier (1995) and Depoers (2000) had rejected those hypothesis. It means that their research found there were firms with higher ownership structure had no disclose more information voluntary. According to these researches, it can develop the hypothesis :

**$H_1$  : There is association between ownership diffusion in the firms and levels of intellectual capital disclosure.**

Bias may occur as a result of other factors. Although, it can avoided by using the control variables as validity of measurement (Bryman and Bell, 2007). To avoid bias that occurred in these studies,

researcher uses control variables such as firm's size, company age, the company's leverage, profitability, type of independent auditor, and role of duality.

According to the theory, both independent and control variables can be summarized predicted relationship below.

**Table II. 1**

**Predicted Sign of Relationship Each Independent and Control Variables**

Variables	Symbol	Predicted Sign
Ownership Diffusion	OD	Negative
Firm’s size	TA	Positive
Profitability	ROA	Positive
Company age	AGE	Negative
Leverage	LEV	Negative
Auditor Type	AUDITTYPE	Negative
Role of Duality	RDUAL	Negative

The following formulation is regression model of this research according to the theory development.

$$ICD = \beta_0 + \beta_1OD_i + \beta_2AGE_i + \beta_3ROA_i + \beta_4LnTA_i + \beta_5LEV_i + \beta_6AUDITTYPE_i+ \beta_3RDUAL_i + \epsilon_i$$

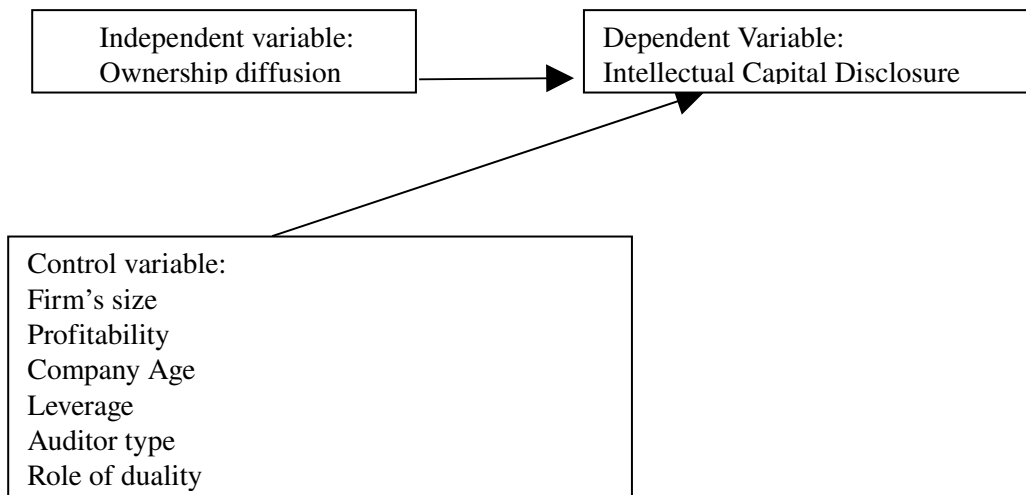
Description:

ICD	Index intellectual capital disclosure (ICDI), the natural logarithm (Ln) of the number of words is an indicator of intellectual capital (LnICWC) 3 larger proportion of share ownership of the number of shares outstanding;
AGE	Company age, established since the date (in years);
ROA	Return on assets (ROA) (Proxy of profitability)
	Natural Logarithm total assets (Proxy of firm’s size);
AUDITTYPE	Dummy variable, 1 if big 4, 0 if otherwise.
RDUAL	Dummy variable, 1 if there is role of duality, 0 if there is no role of duality
	parameters;

error term;  
the i-years observation

## W. Theoretical Framework

The following figure shows the theoretical frame work of this research. Dependent variable of this research is intellectual capital disclosure. Independent variable is ownership structure. The control variables are firm's size (total assets), company age, profitability (ROA), leverage, auditor type, and role of duality.



**Figure II.1**  
**Theory Framework**

**X. Research Comparison**

Table II. 1 below shows the summary of previous researches in intellectual capital and voluntary disclosure topics compared to this research.

**Table II. 2**  
**Research Comparison**

Researcher	Variables	Method Analysis	Samples
Li, et. al (2008)	Dependent : Intellectual capital disclosure Independent: Independent non executive directors, ownership structure, internal auditing mechanism, and role of duality Control: Listing Age, ROA, Firm's size (Sales)	Content Analysis	100 UK listed firms 2004-2005 in London Stock Exchange Firms as samples include banking, telecommunication, business services, media and publishing, food production and beverage, pharmaceuticals and biotechnology, and IT firms.
Oliveira, et. al (2008)	Dependent : Voluntary disclosure of intangible reporting Independent: Firm's size, leverage, ownership diffusion, firms audit Control: ROA, industry type, listing status	Content Analysis	56 listed company in Portuguese stock market 2003
Saleh, et. al (2008)	Dependent : IC performance Independent: ownership structure (family ownership, government ownership, management ownership, and foreign ownership) There is no control variable.	VAIC	All kinds of companies in MESDAQ
Li, et.al (2006) (working paper)	Exploratory study in European bank's annual report	Content Analysis and descriptive Analysis	9 leading banks in Western European countries
Haniffa and Hudaib (2004) (working paper)	Exploratory study in Gulf Region's Islamic bank's annual report	Content Analysis and descriptive Analysis	5 Islamic banks in Gulf Region

## **CHAPTER III**

### **RESEARCH METHODOLOGY**

#### **A. Research Design**

This research included in hypothesis testing research. It caused that in this research are tested the hypothesis which developed before (Hartono, 2005). This research aims to find the effect ownership structure on intellectual capital disclosure in Islamic banks for the evidence in Asia.

#### **B. Population, Sample, and Sampling Technique**

Population is not known because there is no actual index taken from special institution that reported the number of Islamic banks in Asia. In this research used purposive sampling techniques. Purposive sampling technique is selecting sample techniques made by taking the sample based on certain criteria developed in the research objectives (Hartono, 2005). The criteria of purposive sampling in this research are:

- a. full pledged Islamic Banking, which are located in Asia and listing in each country's stock exchange,
- b. has a website that can be used to download the annual report,
- c. Islamic banks which publishes English version annual report from 2003 to 2007 on their respective websites,
- d. Annual report that was taken from the website of each bank is also the only annual report can



provide complete information in accordance with the variables included in this research.

### **C. Variables Measurement**

Variables examined in this research consists of dependent variables such intellectual capital disclosure. Independent variable is ownership structure in which proxied by ownership diffusion. For control variables are firm size, company age, leverage, profitability (ROA), auditor types, and role of duality.

#### **1. Dependent Variable**

Variation intellectual capital disclosure (ICDI) used as dependent variables expressed by the company. This proxy is taken from the companies annual reports of each sample. Annual report is the only one of many company public media for communications which can be used to transfer the information to communities who invest in the company, to know the company's capital (Frederiksen and Westphalen, 1998). In addition, Marston and Shives (1991) concluded that annual report was comprehensive document that was provided by the company as company disclosure media to the public interest.

Parker (1982) argued that the annual report is a public media that cover the extent scope and easily provided. The advantage of the annual report was there was addition component in reporting financial report which can be communication media information about intellectual capital (Johanson et. al, 1999, Abeysekera, 2006). Thus, the annual reports to be choice in measure company intellectual capital.

The measurement of intellectual capital disclosure in this research adopted Li, et. al (2008). The amount of intellectual capital components in Li, et. al (2008) was as 61 components. Thus, from 61 components revealed by the company and then divided by the number of 122 point (for 2 matrixes format such as text and number). In this research, researcher excludes graph/picture as one of matrix format by Li, et. al (2008) caused in accordance Ahmad (2004) that argues that graph/ picture would

involve a high level subjectivity. Ahmad (2004) also used text and number for measuring word count for content analysis. As for how to calculate the components is the dummy variable method, using the technique dichotomy score with the formula:

$$ICDI_j = \frac{\sum_{i=1}^{n_j} X_{ij}}{n_j}$$

$n_j$  = number of items that  $j$  th expressed by the company, consisting of 122 (ie 61 items in two formats),  
 $X_{ij} = 1$  if the company reveals  $i$ th item, if 0 if the company does not reveal, so that  $0 \leq 1 \leq ICDI_j$ .

Dependent variables adapted to Li, et (2008) also measure the volume of intellectual capital disclosure (ICWC). To measure the volume of ICD was calculated the number of words in the annual report related to the 61 component intellectual capital disclosure (Li, et al, 2008). Number of words selected as the method of calculating the volumes of intellectual capital disclosure. It caused that the word was the smallest unit of quantitative measurement in the content analysis. It also expected to maximize accuracy in the volume are (Zeghal and Ahmed, 1990).

This research using Islamic banks annual reports from different countries. Problems in the language used by each country can be a constraint in the calculation of the word. Therefore, in this research used the annual report in which using English version as international language standards.

Dependent variable in this research there are two kinds of proxy. They are intellectual capital disclosure variation is signed as ICDI and intellectual capital disclosure volume is signed as ICWC. Result of ICDI the calculation by with the dichotomy score method shows the variations of intellectual capital. While ICWC by content analysis indicates the volume of intellectual capital disclosures are made by company. The example of counting word in content analysis method can be seen the following sentence.

“During this period, the IT Group was able to implement systems to support Retail Banking, Accounting, Assets, Trade Finance, IVR, Call Center, Debit Cards, Credit Cards, ATMs and SMS banking” (Annual Report of Boubyan Bank, 2006, pages 17)

From this sentence, researcher can divide the sentence into some phrases such as (1) the IT Group was able to implement systems to support Retail Banking, Accounting, Assets, Trade Finance (2) Call Center, and (3) Debit Card, Credit Cards, ATMS, and SMS Banking. First phrase shows that Boubyan Bank had been disclosed structural capital about technology used in its bank (see S10 at table of research instrument). It contains 16 words. Second phrase, shows that Boubyan bank had been disclosed about call center of which includes in structural capital index number 12 about customer support function (see S12 code at table of research instrument). It contains 2 words. The last phrase, shows that Boubyan bank had been disclosed about both product and technology. Product represented by disclosing about debit card and credit card. It contains 4 words. Technology represented by disclosing SMS banking facility and ATMs. It contains 3 words.

## **2. Independent Variable**

According to Oliveira et. al (2008), measurement of independent variable by calculating concentrated ownership expressed by three major ownership in each annual report.

## **3. Control Variable**

Firm's size selected because it was important for a potential disclosure research (Hossain, 2008). The measurement of firm's size of this research refers to the Haniffa and Cooke (2005), Freedman and Jaggi (2005) using the natural logarithm of total asset size as a proxy. Firm's size signed as TA.

Company age is signed as AGE. It is measured by counting the age of the company from the date of company establishment. Data on the date of the company establishment obtained from the company history in the annual report. Then the data is performed by date cut off in December 31.

Profitability is signed as ROA. It is use return on assets (ROA) as profitability proxy. ROA measured by counting net income divided by total assets.

Haniffa and Cooke (2005) and Freedman and Jaggi (2005) used the leverage as one of their proxy in their research. Leverage is signed as LEV. It is measures by calculating the ratio of debt to total equity. This ratio indicates how much of the total assets of the company were acquired or funded by debt.

Firm audit is signed as AUDITYPE. It is measured by dummy variable. 1 if the firm audited by big 4 and 0 if otherwise. The big 4 firm audit are Deloitte and Touche, KPMG, Price Water House, Coopers and Cap Gemini, and Ernest and Young.

Role of duality is signed as RDUAL. It is measured by dummy variable, 1 if there is role of duality, 0 if there is no role of duality in the firm.

#### **D. Research Instruments**

Content analysis technique in this research is done by read annual reports of each company. It is also done by coding the annual report sample to get information in the framework of intellectual capital indexes. Intellectual Capital indexes in the research Li, et. al (2008) selected as a reference indicator for intellectual capital in accordance with the objectives of the research. It is also caused availability on dependent variable data by content analysis methods. The component of intellectual capital is used in this research is basically divided into three major parts, such as (Li, et.al, 2008).

- a. human capital
- b. Structural capital
- c. Relational capital

In this research, the third indicator of intellectual capital disclosure is to be outlined 61 points are included the indicator 22 points to human capital, 18 points for structural capital and 21 points for

relational capital (Li, et. al, 2008). Research instrument as 61 components list can be seen in detail in the following table.

Table III.1

## Research Instruments

Code	Items Names	Description
<b>Human Capital</b>		
<del>H1</del>	Number of employees	Employees count of a firm, employee breakdown by. e. g market (business operation or geographical segments), department and job function, and information about its changes for such changes
<del>H2</del>	Employee age	Biological age of employee in the firm, include qualitative description of age-related advantages/strength of a company's employees and indicators such as average age of company's employee, and age information
<del>H3</del>	Employee diversity	Diversity is defined as the division of classes among a certain population. The item refers to the mix of e. g ethnicity, gender, color, and sexual orientation. Relevant disclosure include employee diversity policy, the mix and breakdown of employee by race, religion, and culture
<del>H4</del>	Employee equality	Equal treatment of people irrespective of social and cultural differences. Related disclosure includes employee equality policy and initiative taken enforcement, senior management by gender, and percentage of disabled employees.
<del>H5</del>	Employee Relationship	The recognition of importance of employee, employee appreciation, dependence on key employee, employee satisfaction, loyalty, Health and safety and working environment. It is also includes initiatives to build and improve employee relationship e. g. trade union activities, promotion in share ownership and employee contractual relationship
<del>H6</del>	Employee education	Education of directors as well as other employees. Employees' professional recognition is classified under employee work-related competences.
<del>H7</del>	Skills/know-how	Disclosures can be description of knowledge, know-how, expertise or skills of directors and other employees. Matrices could also be shown indicating number of employees with such skills, etc.
H8	Employee work-related competences	The knowledge and skills that can be useful to accomplish jobs. It refers to, Competence e.g. current positions held outside the company by directors, professional recognition/qualification, awards won (external), and employee publications.
H9	Employee work-related knowledge	What is acquired during the job in terms of tacit, explicit and implicit knowledge. It mainly relates to knowledge that employees have related to their current job description, including employees' previous working experience.

H10	Employee attitudes/. behavior	It reflects how employees are working. Relevant disclosures could be, e. g. employee friendliness, welcoming, hard working, optimism, enthusiasm, and identification of individuals with company's goals.
H11	Employee commitments	It refers to employees being bound emotionally/intellectually to the organization. It covers, e.g. description of employee commitments, employee commitment matrix/index, and indicators such as attendance of meetings.
H12	Employee motivation	Policies, initiatives and evidence of motivation of directors and other employees. It includes reward (internal) and incentives systems, e.g. employee explicit recognition, performance/ psychometric/ occupational assessment, and indicators of such as employee turnover <sup>1</sup> stability, absence, and seniority.
H13	Employee productivity <sup>2</sup>	It is typically measured as output per employee or output per labor-hour, an output which could be measured in physical terms or in price terms. It shows the value added and efficiency of employees. Indicators include, e.g. employee value added, revenue or customers per employee.
H14	Employee training	It includes, e.g. training policies, training programs, training time, attendance, investment in training, number of employees trained per period, and training results/effectiveness/efficiency.
H15	Vocational qualifications	It refers to education, managed and monitored by trade and professional organizations (Brooking, 1996), received by an employee for a particular vocation that proves the skill, knowledge and understanding he/she has to do a job well.
H16	Employee development <sup>3</sup>	Employee career development. Disclosures include employee development policies and programs (e.g. succession planning), recruitment policies (e.g. internal promotion). Indicators include change of employee seniority, and rate of internal promotion.
H17	Employee flexibility	Strategies used by employers to adapt the work of employees to their production/business cycles; and a method to enable workers to adjust working life and working hours to their own preferences. For example, temporary/fixed-term contracts, relaxed hiring and firing regulations, adjustable working hours or schedules (e.g. part-time, flexible working hours/shifts, working time accounts, leave, and overtime), outsourcing, job rotation,

<sup>1</sup> Information about directors' retirement is not included as employee turnover.

<sup>2</sup> Directors' achievements based on incentive schemes are classified as employee motivation information rather than employee productivity. It is considered more appropriate to reflect on the motivational effectiveness of incentive schemes

<sup>3</sup> Not formal qualifications as degrees.

H1	Entrepreneurial spirit	tele /home-workers, outworkers. It refers to, e.g. employee engagement (e.g. employee suggestion systems/consultations, rate of employee suggestions acceptance), empowerment (responsibility taking), creativity (e.g. valuing creativity, tolerance of creative people), innovativeness, knowledge sharing, and employee proactive/reactive ability.
H1	Employee capabilities	Other employee abilities apart from the above discussed, e.g. communication ability, interpersonal ability, sensitivity (e.g. thoughtful), reflexivity, and management quality.
H1	Employee teamwork	Teamwork is the concept of people working together cooperatively. It covers information about culture of teamwork (expert teams and networks, teamwork capacity), programs that enhance relationships between employees within/ a cross departments.
H21	Employee involvement with community	Employee social competence can be reflected by their involvement with community It is defined as providing employees opportunities for contact with an often concealed but significant part of the firm's stakeholders.
H22	Other employee features	It refers to the special display or attraction of, or gives special prominence to, employees of the firm, e.g. photographs of employees, other employee profile information (e.g. positions held).
<b>Structural capital</b>		
H1	Intellectual property	It is a term that encompasses patents, copyrights, trademarks, trade secrets, licenses, commercial rights and other related fields. It covers the assets of a company which is protected by law.
H2	Process	It normally refers to a company's management (sales tools, company co-operation forms, corporate specialization, operational or administrative processes). It includes utilization of organization resources, processes/ procedures / routines, and documentations which enables the company or employees to follow. Indicators are, e.g. efficiency, effectiveness, and productivity.
M3	Management philosophy	'The way leaders in the firm think about the firm and its employees' (Brooking, 1996: 62), i.e. the way a firm's managed.
S2	Corporate culture	The set of key values, beliefs, attitudes and understanding shared by people and groups in an organization, which controls the way members of the organization interact with each other and with other



		stakeholders. It covers information about, e.g. description of the firm's corporate culture and value, stories and myths that build up about people, events and history conveying a message about what is valued within a firm.
5	Organization flexibility	A company's ability to face challenges and changes, such as specific processes firms use to alter their resource base.
6	Organization structure	Reporting lines, hierarchies, and the way that work flows through the business, including management structure and business models.
7	Organization learning	A characteristic of an adaptive organization. It covers what firms learn from experience and incorporate the learning as feedback into their planning process.
8	Research & development (R&D)	It refers to future-oriented, longer-term activities in business practice, which can achieve higher levels of knowledge and improvement in business practice, allowing the organization to exploit competitive advantages. It includes, e.g. R&D policies, programs, planning, progress, budgets, successful rate, rate of peer-reviewed publications.
9	Innovation	Defined as the successful implementation of creative ideas within a firm by introducing something new and useful (radical or incremental changes to products, processes or services).
10	Technology	A collection of techniques, which is the current state of humanity's knowledge of how to combine resources to produce desired products, to solve problems, fulfill needs, or satisfy wants. It includes machines, IT (e.g. computer hardware and software), IS (e.g. SAP, PeopleSoft, database), technical methods, and techniques.
11	Financial dealings	Defined as the favorable relationships the firm has with investors, banks and other financiers, financial ratings, financial facilities available, and listings.
12	Customer support function	Functions for customer support, such as customer support centers (e.g. call centers) and other related activities and programs.
13	Knowledge-based infrastructure	It includes, e.g. documented materials (e.g. shared database) that a firm shares amongst employees, facilities or centers (knowledge centers, laboratories) for training & learning, and knowledge management and sharing programs/ policies /facilities.
14	Quality management & improvement	Practices in maintaining and improving quality standards of products and services. Information considered relevant includes, e.g. policies and

4	objectives, programs, control activities (e.g. TQM), description of quality performance, and existence of quality committee.
<del>S15</del> Accreditations (certificate)	A process in which certification of competency, authority, or credibility is presented. It has been broadly referred to as quality certificates. 'Investor in people' accreditation represents a firm's commitment to its employees; hence classified under employee relationship.
<del>S16</del> Overall infrastructure/ capability	Infrastructure/capabilities of a firm that cannot be classified under the other 17 structural capital items. Where acquisitions are stated to add a firm's capability of products and services provision, such information is included under this item.
<del>S17</del> Networking	The systems available in a firm that allows interaction of people via a broad array of communication media and devices, e.g. voicemail, e-mail, voice or video conferencing, the internet, groupware and corporate intranets, personal digital assistants, and newsletters.
S18      Distribution network	Internal networks of distribution, such as distribution centers. It is what a company owns and forms a very essential part of the business supply chain.

Relational capital	
<del>R1</del> Customers	General customer information, e.g. type of customers, customer names, reputation of customers, customer base, knowledge of markets/customers, and customer purchasing histories.
<del>R2</del> Market presence	It covers target markets of a firm, geographically or by market segmentation, percentage of sales represented by each market segment, and market share.
<del>R3</del> Customer relationships	It includes policies and programs for building customer relationships (e.g. customer loyalty schemes, customer satisfaction survey and the initiatives taken for improvement, complaints management), current relationships with customers (e.g. customer satisfaction and loyalty, customer recommendation, recognition of dependence on key customers, customer perception (e.g. expressed by direct quotes), and various activities/indicators that enhance customer relationships, such as on-time deliveries, convenience of returning goods, value for money).
<del>R4</del> Customer acquisition	It refers to a company's new customers/contracts (unless identified as favorite contracts). It also includes a company's effort on acquiring new or more customers, such as investments/costs.

<del>C</del> 6	Customer retention	It focuses on retaining the existing customers. Relevant information includes e.g. the number of repeated customers/contracts, renewed contracts, backlog orders, and customer repurchase.
R6		Customer training & education (CTE), such as presentation, road shows, exhibitions, etc.
<del>C</del> 7	Customer involvement	It focuses on customer consultation on product or services development, which could also include customer and company connectivity.
R8	Company image/ reputation	It refers to the evaluation/perception of a firm by its stakeholders in terms of their effect, esteem, and knowledge, and what a company stand for.
<del>C</del> 9	Company awards	It includes awards to a company which is not specifically to other aspects, such as innovation or employees.
<del>P</del> 0	Public relation	It is the managing of outside communication of an organization to create and maintain a positive image. Public relations involve, e.g. popularizing successes and downplaying failures.
<del>D</del> 1	Diffusion & networking	It includes taking part in social events, courses, conferences, lectures, or other presentations or seminars.
<del>B</del> 1	Brands <sup>4</sup>	Information about, e.g. brand names, brand images, brand awareness, brand loyalty (e.g. word of mouth advocacy), brand-building strategies and activities, and brand-related sales.
2		
<del>D</del> 3	Distribution channels	Defined as appropriate mechanisms of getting products and services into the market (Brooking, 1996). It refers to various third party distribution channels, e.g. distributors, agents, dealers.
3		
<del>R</del> 4	Relationship with suppliers	It includes, e.g. knowledge of suppliers, relationships with them (such as reliance on key suppliers, bargaining power against suppliers, support of suppliers, and payment terms).
4		
<del>B</del> 5	Business collaboration	Collaborations established with other business partners. It covers issues such as strategic alliances, joint venture and partnership for the purpose of working together to improve effectiveness and efficiency by combining each other's advantages.
5		
<del>B</del> 6	Business agreements	It includes such as licensing and franchising agreements. However, the transactions are not within a consolidated group of companies.
6		

<sup>4</sup> Brands have been classified under relational capital in various studies (e.g. Bozzolan et al., 2003; Brennan, 2001; Guthrie and Petty, 2000). Although authors such as Rodgers (2003) consider brands as a structural capital item, it is considered in this study that brands themselves are not able to create value for firms and it is the attachment of the market and customers, and the positive perception consumers have relating to the brand that lead to purchase decisions and add value to the firm.

F7	Write contract	A contract obtained because of the unique market position held by the firm (Brooking, 1996). It includes description of the contract and the favorable relationships.
7		
R8	Research collaboration	Collaborations with scientific associations or institutions (e.g. schools and universities) for research or development purposes for the benefit of the company or the community.
8		
R9	Marketing	It includes, e.g. marketing initiatives, investments, strategies, capabilities, and effects (e.g. awareness raised or sales created).
9		
R20	Relationship with stakeholders	A firm's relationship with stakeholders, which cannot be covered by relationship with customers, suppliers and shareholders, e.g. community, government, and competitors.
R21	Market leadership	A firm's leadership in various markets or top positions. Market share supplementing market leadership statement is also included.

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Source: Li, et. al (2008), pp. 155-159

## **E. Data Source**

The secondary data are used in this research. In this research, secondary data are the annual reports issued by each banks. They are collected by purposive sampling criteria. The annual reports collected based on purposive sampling criteria are from 2003 until the year 2007. Data were selected by download from their website. Data are collected by pooled data.

## **F. Data Collection Method**

### **1. Technical Data Collection for Dependent Variable**

Technical data collection in this research is by using content analysis for dependent variables. Content analysis is data collection method for research by observing and analyzing the content or message of a text, the content and any posts or document fragment. Then, they are classified into different categories or groups depending on the criteria that have been defined by researchers (Milne and Adler, 1999). Purnomosidhi (2006) stated that the goals content analysis is identify the characteristics or specific information in document. The document aims to produce the objectively and systematically description. Gray et. al (1995) reported that the content analysis was used to conduct the annual report research in general. Guthrie (2004) argued that the valuable of content analysis to investigate intellectual capital disclosures in annual report

## **2. Technical Data Collection for Independent Variable**

For independent variables, the data collected in the annual report of each company's sample which is required the ownership diffusion data.

## **3. Technical Data Collection for Control Variable**

For control variables, the data collected in the annual report of each company's sample which is required complete information about company age, firm's size, profitability, leverage, firm's audit, and role of duality.

## **G. Method Analysis**

In this research, researcher uses SPSS program 16.00 version for data analysis. In a test, the researchers tested a variable the stages as follows:

### **1. Classic Assumptions Test**

#### **a. Normality Test**

Normality test aims to test normality of distribution in the regression model on residual variables (Ghazali, 2005). Normality test stage was a test that must be done. Removing classic assumption in statistics test, the multi regression test will not be valid for the small sample (Ghazali, 2005).

#### **b. Multicollinearity Test**

Multicollinearity test aims to test free correlations between variables (Ghazali,

2005). A good regression model should not occur correlation between independent variables. In case of mutual correlation, the variables are orthogonal. The means of orthogonal was correlation of each independent variable with other independent variable was 0 (Ghazali, 2005).

Multicollinearity between independent variables can be seen on the value of tolerance. It against the value of variances inflation factor (VIF) (Ghazali, 2005). The second ways to know the multicollinearity is show the size of each independent variable which described by the other independent variables. Tolerance measures variability of independent variables selected which are not explained by other independent variables. The lowest tolerances values synonymous with the highest VIF values in this test (Ghazali, 2005).

#### **c. Autocorrelation Test**

Autocorrelation was the relationship between the errors which appear on the time series. To detect the existence of autocorrelation can be done with the Durbin-Watson test (Ghazali, 2005).

#### **d. Heteroscedasticity Test**

Heteroscedasticity test done by using this heteroscedasticity test method in cross term to the R square value. X square table in accordance with the value degree of freedom (df) are based on the number of its variables opposition not including the constant (Ghazali, 2005).

## 2. Hypothesis Test

Hypothesis test consists of simultaneous regression test (F test statistics) and partial regression test (test statistic T).

### a. Simultaneous regression test (F Test Statistic)

Simultaneous test (F test) aims to test the influence simultaneously of independent variables and the control variables on the dependent variable. The aims of this test also to eliminate bias in testing. *F* test used ANOVA (Analysis of Variances) which is used to know the main influence (main effect) and interaction effect of the categorical independent variables against dependent variable matrix. The influence of primary (main effect) was the direct influence of independent variables against dependent variables. While shared or joint effect was interaction effect on two or more independent variables on the dependent variable Ghazali, 2005)

### b. Partial Regression Test (T -Test Statistic)

T-test statistics basically showed the influence of one independent variable individual variation explained in the dependent variable. *T*- Test statistics can be done by comparing the value of *t* statistics to the critical point according to the table. When the value of *t* statistics of the calculation was higher than the



table, it means the null hypothesis was rejected or alternative hypothesis was accepted (Ghazali, 2005).

## **CHAPTER IV**

### **DATA ANALYSIS AND DISCUSSION**

#### **A. Introduction Analysis**

This study is hypothesis-testing research. This research examines the influence ownership structure on intellectual capital disclosure in the Islamic bank in Asia. In this chapter is described the data description, result of hypothesis testing and its discussions. In this research, data are processed by using multiple regression analysis on the SPSS program 16.00 version.

#### **B. Data Analysis**

The data description in this study includes the sample selection and descriptive statistics analysis.

##### **1. Sample Selection**

There is no special institution which is record the number of Islamic banks in Asia. Thus make researcher observes the number of Islamic banks in Asia by tracing on each country's stock exchange website. Researcher uses the list of Asia's countries based on the notes of Encyclopedia Asia. Based on this notes, researcher is browsing the address of each country's stock exchange website. Then, researcher visits each securities exchange website and record the number of Islamic bank listing on them. Number of Islamic banks in Asia which are found by website tracing study can be seen in Appendix I. Table IV.

1 shows the the number of Islamic banks which are became sample of research.

**Table IV. 1**  
**Number Islamic Banks in Asia**

No.	Description	Number Islamic Bank	Percentage
1	Populations Islamic Bank in Asia which were listed in the stock exchange each countries in Asia	31	100 %
2	Number of Islamic Bank listed which has bank's website and provide the annual report can be downloaded	18	58.024%

Source: secondary data, processed.

The next step is to visit the Islamic banks website. Complete list of Islamic banks website which are listed on the each country securities exchange can be seen in Appendix 2. Then, researcher is downloaded the annual report as an object in this research. However, not all Islamic banks listed which were had bank's website also publishes annual report. Only some Islamic banks which can be sample based on purposive sampling criteria. Table IV. 2 below shows the amount of the annual report can be downloaded from their website and Islamic bank annual report which can be in the analysis.

**Table IV. 2**  
**Annual Report Sample**

No.	Description	Amount Annual Report	Percentage
1	Annual Report downloaded and seen (from total number Islamic bank provide annual report in its website)	61	100 %
2	<i>Annual Report</i> which are not require purposive sampling criteria	27	44.2623%

3	Annual Report which are matched on purposive sampling criteria (final annual report sample)	34	53.125%
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Source: Secondary data, processed.

Secondary data used in this research are 34 the Islamic bank's annual reports in Asia. There is limitation of the number of Islamic banks that meet the purposive sampling criteria. Only 34 annual reports are taken by using panel data (pooled data) in 10 Islamic banks of seven countries (see Appendix 2)

**Table IV.3**  
**Final Sample**

No	Country	Name of Islamic Bank	Amount	Percentage
1.	Indonesia	Bank Muamalat Indonesia	2	5.9%
2.	Malaysia	Bank Islam Malaysia Berhad	3	8.8%
3.	Kuwait	Kuwait Finance House	5	14.7%
		Boubyan Bank	3	8.8%
4.	Pakistan	Meezan Bank	5	14.7%
		Bank Islami	2	5.9%
5.	Qatar	Qatar Islamic Bank	2	5.9%
6.	Bahrain	Al – Salam Bank	2	5.9%
		Bahrain Islamic Bank	5	14.7%
7.	Abu Dhabi	Abu Dhabi Islamic Bank	5	14.7%
<b>Total</b>			34	100%

Source: secondary data, processed.

Researcher has been coding annual report of which required purposive sampling criteria as the first step of collecting dependent variable data. The following table is summary of the results presented coding intellectual capital disclosure.

**Table IV. 4****Amount Intellectual Capital Disclosure Variation**

Intellectual Capital	Total (34 annual report)	Percentage
<b>Human Capital</b>		
		42
Number of employee	21	62 %
Employee age	11	32 %
Employee diversity	2	5.9 %
Employee equality	11	32 %
Employee relationship	17	50 %
Employee education	18	53 %
Skills/ know-how	15	44 %
Employee work-related competences	25	74 %
Employee work-related knowledge	17	50 %
Employee attitudes/ behavior	25	74 %
Employee commitment	26	76 %
Employee motivation	20	59 %
Employee productivity	16	47 %
Employee training	27	79 %
Vocational qualifications	7	21 %
Employee development	26	76 %
Employee flexibility	4	12 %
Entrepreneurial spirit	13	38 %
Employee capabilities	14	41 %
Employee teamwork	23	68 %
Employee involvement with community	11	32 %
Other employee features	34	100 %
<b>Structural Capital</b>		
Intellectual property	0	0 %
Process	32	94 %
Management philosophy	30	88 %
Corporate culture	30	88 %
Organization flexibility	31	91 %
Organization learning	29	85%
Research & development (R&D)	11	32%
Organization structures	25	73 %
Technology	34	100%
Innovation	33	97 %
Financial dealings	25	74 %
Customer support function	22	65 %
Knowledge-based infrastructure	19	56 %
Quality management & improvement	34	100 %
Accreditations (certificate)	21	62 %
Overall infrastructure/ capability	23	68 %
Networking	2	6 %
Distribution network	33	97 %

#### Relational Capital

Customer	16	47 %
Market presence	25	74 %
Customer relationship	34	100 %

Source

S

Source: secondary data, processed

According to the Table IV.4 above, items of intellectual capital can be seen are expressed major in other features employee (human capital), technology and quality management & improvement (Structural capital). As well as customer relationship and marketing (Relational capital) where the percentage reaches 100%. It also can be state that all Islamic banks including in the sample have disclosed intellectual capital item.

On disclosures related to the human capital, employee training is also discloses 79 % of all annual sample. Example of disclosure about employee training can be seen in the paragraph below.

“A total of 31 Muamalat Crew have participated in the single MOOP session held in 2003, while 19 bank officers have been promoted to the position of branch manager. Bank Muamalat has also adopted new employee remuneration and grading system that is aligned to current industry standards based on the competence of each Muamalat Crew. Other training programs in 2003 include standard service level training based on ISO 9001-2000 certification for front-liner employees, sharia accounting training for back-office personnel, and a workshop for bank officers on the principles and practice of Islamic banking, delivered in cooperation with the Islamic Research & Training Institute of the Islamic Development Bank (IDB). More than Rp 1.9 billion were spent for various training programs in 2003. For the year 2004, Bank Muamalat plans to conduct two MOOP sessions as well as the “Seven Fluency” program with a focus on the 5th fluency (system and procedure) and the 4th fluency [Annual report Bank Muamalat Indonesia, 2003, page:45 ]

## **2. Descriptive statistics**

Descriptive statistics in the research conducted to explore the value of mean, and standard deviation of the variables of research. Descriptive statistics in a research conducted to find the mean value and standard deviation of each variable. The descriptive statistical results are as follows.

**Table IV. 5**

### **Descriptive statistics**



Variable	Mean	Standards Deviation	N
	.3549	.07589	34
LNICWC	8.3332	.62630	34
	52.4089	20.05566	34
	2.8913	3.40015	34
	64.3660	31.20812	34
	14.8235	10.19944	34
LNTA	14.6862	1.38234	34
AUDITYPE	.82	.387	34
RDUAL	.24	.431	34

Source: secondary data, processed

The table shows the result of descriptive statistics for knowing mean and standard deviation values of 34 sample annual reports. Information of descriptive statistics obtained on the results test are (a) mean of ownership diffusion is 52.4089 and standard deviation of 20.05566 (b) mean of LNTA is 14.6862 and standard deviation of 1.38234, (c) mean the company's profitability (ROA) is 2.8913 of and standard deviation of 3.40015, (d) mean of the company age of is 14.8235 and standard deviation of 10.19944, (e) mean of the company's leverage (LEV) is 64.3660 and standard deviation of 31.20812, (f) mean of the type of independent auditors firm (AUDITTYPE) is 0.82 and standard deviation of 0.387, and (g) mean of role of duality (RDUAL) 0.24 and standard deviation of 0.431 (completely, see Appendix 4)

**Table IV.6**

### Amount of Two Format Intellectual Capital Disclosure

No	<i>Intellectual Capital</i>	Amount (ICDI)	Percentage (ICDI)	Amount (ICWC)	Percentage (ICWC)
1	<i>Human Capital</i>	437	29.7 %	42558	24.5 %
2	<i>Structural Capital</i>	550	37.3%	86922	50.1 %
3	<i>Relational Capital</i>	486	32.9%	44059	25.4 %
<b>Total</b>		1473	100 %	173539	100 %

Source: secondary data, processed

The mean index (ICDI) is 0.3549 with slight variation in variety human, structural, and relational capital disclosure, and the mean aggregate word count (ICWC) is 5.104 words. ICDI ranges from 0.2 to 0.49. ICWC ranges from 1.502 words to 13.992 words.

The rankings of the mean human, structural, and relational capital disclosure change according to the disclosure measure employed. Structural capital ranks highest (37%) for the disclosure index score. Structural capital ranks the highest in term of word count, while human capital and relational capital are joints highest for focus, each forming 24.5 % and 25.4 % of total annual report word count. In all cases, human capital is in third place, although not far behind other two. The structural-relational -human ranking for word count (50.1%, 25.4%, and 24.5.% of total intellectual capital respectively) is not consistent with findings from prior intellectual capital disclosure studies (e.g Guthrie and Petty, 2000; Bozzolan et. al, 2003; Goh and Lim, 2004, and Vandemale, et.al, 2005), demonstrating systematic differences in the level of reporting on intellectual capital elements that are

the most value and stakeholder relevant (Vargauwen et. al, 2007), relational capital would seem to be the most important in this regard. Although, it was consistent to Li, et. al (2006) found that structural capital are slightly more prominent than relational and human capital disclosures in bank's annual report. Bounfour (2003) also found that in Nordic countries (The Netherlands, Denmark, and Sweden) excel in Internet home access and are leading countries in Europe for innovation and technology, while and innovation and investment.

**Table IV.7**

**Descriptive Statistics for Intellectual Capital by category by Two Formats**

Intellectual Capital Categories		Format	Min	Max	Max possible	Mean	%	SD
Human Capital	Numbers		4	19	22	11.26	51.18	4.114
			0	6	22	1.59	7.22	1.635
			4	21	44	12.85	29.20	4.698
Structural Capital	Numbers		8	17	18	12.76	70.88	2.119
			0	8	18	3.41	18.94	1.971
			8	22	36	16.18	44.94	3.459
Relational Capital	Numbers		5	15	21	11.35	54.04	2.268
			0	7	21	2.94	14	2.074
			5	21	42	14.29	34.02	3.904
Intellectual Capital	Numbers		23	47	61	35.382	58.01	6.3581
			0	16	61	7.94	13.01	4.431
			25	58	122	43.32	35.51	9.240

Table IV.7 shows descriptive statistics for intellectual capital category by two formats. It can be seen that human, structural, and relational capital are disclosed in all two forms in the sample annual report. No one for human, structural, and relational capital in text form do we observe all possible items disclosed. On average 35 (58.01%) of the intellectual capital items in the research instrument have text disclosure. This falls to 13.01 % for disclosure in numerical form.

The results confirm that intellectual capital disclosures are still mainly in text form, in line with previous studies (e. g Guthrie and Petty, 2000; Breenan, 2001. The extensive use of numerical information in intellectual capital disclosure identified in the study is encouraging, supporting the finding Sujan and Abeysekera (2007).

### 3. **Result of Hypothesis Testing**

Hypothesis testing conducted using multiple regression analysis. Multiple regression analysis conducted by measuring goodness of fit regression model, to assess the accuracy of the regression function in the actual value estimate. Goodness of fit regression of the statistics model can be seen by the determination coefficients value, the value of F statistics, and statistic value *t*. In order to lack from an error of results, classic assumption test had done before regression test. Classic assumption test consists of normality test, multicollonearity test, autocorrelation test, and heterocedasticity test.

## F. Classic Assumptions Test

### 1. Normality Test

Normality test aims to test normality of distribution in the regression model on residual variables (Ghazali, 2005). In this research, the sample size used is also included in the sample size small. One of the easiest ways to find out normality see the residual graph is a histogram of the comparing data with the observation distribution of the near normal distribution. To detect normality in residuals, used test for non-parametrics statistics as Kolmogorov-Smirnov test. The test begins with the determination of this hypothesis test such:

$H_0$  : data is normally distributed

$H_1$  : data is un normally distributed

$H_0$  is received if the value *Asymp. Sig (2-tailed)* > value of  $\alpha$  (0.05) and is rejected if the value *Asymp. Sig (2- tailed)* <  $\alpha$  value (0.05). Conversely,  $H_1$  is received if the value *Asymp. Sig (2-tailed)* <  $\alpha$  value (0.05) and is rejected if *Asymp. Sig (2- tailed)* > value of  $\alpha$  (0.05) (Ghazali, 2005).

After transforming total assets by natural logarithm and examine the data normality test by Kolmogorov-Smirnov test, researcher obtained the following results. Table IV.8 is a table showing the test results of residual normality data both ICDI as dependent variables and ICWC as dependent variables (Completely shown in Appendix 3).

**Table IV. 8**  
**Normality Test (Kolmogorov-Smirnov Results)**

Description	ICDI	ICWC
<i>Kolmogorov-Smirnov Z</i>	0.478	0.762
<i>Asymp. Sig (2-Tailed)</i>	0.976	0.608

Source: secondary data, processed

The table shows that the residual normality with ICDI as dependent variables, Kolmogorov-Smirnov value is significant in 0.478. That is, *Asymp. Sig (2-tailed)* of 0.976 > value of  $\alpha$  (0.05) thus, the data received or normally distributed. So that, there was normality distributed data in ICWC as dependent variables. Kolmogorov-Smirnov value is significant in 0.762. That is, *Asymp. Sig (2-tailed)* of 0.608 > value of  $\alpha$  (0.05) thus, the data received or normally distributed.

## 2. Multicollinearity Test

Multicollinearity test aims to test whether the regression model found the correlation between the independent variable. A good regression model should not happened correlation between independent variables (Ghazali, 2005). How to see there is have or no multicollinearity in the model according to Ghazali (2005) is as follows:

- i. Values of  $R^2$  by an empirical regression model estimates are very high, but individually independent variables are not significantly affect the dependent variable.

- ii. Analyzing matrix the correlation of independent variables. If among the independent variables have a fairly high correlation (above 0.90). So, this is an indication of multicollinearity.
- iii. Multicollinearity can also be seen in (1) the value of tolerance and (2) variance inflation factor (VIF). Tolerance levels to measure variability of the selected independent variable not explained by other independent variables. Cut off value of tolerance that is commonly used  $< 0, 10$  and  $VIF > 10$ . If it so happens, it means going multicollinearity the regression model. Table IV.6 following is the result of the multicollinearity test for ICDI as dependent variables and to ICWC as dependent variables. Results multicollinearity test results can be seen completely in Appendix 3.

**Table IV.9**  
**MulticollenearityTest Result**

Model	Collinearity Statistics	
	Tolerance	VIF
contanta	-	-
OD	.497	2.012
LNTA	.462	2.166
AGE	.564	1.774
ROA	.637	1.570
LEV	.561	1.783
AUDIT	.558	1.792
TYPE		
RDUAL	.679	1.474

Source: secondary data, processed

**Table IV. 10**  
**Multicollenearity Test by Variables**

Model	rdual	age	od	lev	roa	auditype	lnta
Correlations rdual	1.000	-.085	.025	-.292	-.280	-.124	-.158
age	-.085	1.000	-.320	.409	.081	-.239	-.505
od	.025	-.320	1.000	-.043	.381	.444	.273
lev	-.292	.409	-.043	1.000	.322	.246	-.466
roa	-.280	.081	.381	.322	1.000	.130	-.103
auditype	-.124	-.239	.444	.246	.130	1.000	-.132
lnta	-.158	-.505	.273	-.466	-.103	-.132	1.000

Source: secondary data, processed

### 3. Autocorrelation Test

Autocorrelation test aims to test whether there is correlation between the errors in the period  $t$  disturber and error  $t$  disturber on the previous period in the linear regression model. The test begins with the determination of the hypothetical test (Ghazali, 2005)

$H_0$  : There is no autocorrelation ( $r = 0$ )

$H_1$  : There is autocorrelation ( $r \neq 0$ )

Autocorrelation test results can be seen in appendix 8. The table below is a brief course autocorrelation test results interpretation. Table IV.11 shows the test results interpretation autocorrelation with ICDI as dependent variable and ICWC as dependent variable.



**Table IV. 11**  
**Result of Autocorrelation Test**

Description	ICDI	ICWC
Durbin-Watson value	2.281	1.949
<b>dl</b>	1.015	1.015
<b>du</b>	1.979	1.979
<b>7-du</b>	5.021	5.021
<b>Interpretation</b>	There is no autocorrelation	No decision

Source: secondary data, processed

Based on results of autocorrelation test, with ICDI as dependent variables, Durbin-Watson values more than the *du* value of 1.979. Durbin Watson value of ICDI is 1.957, as well as with ICWC as the dependent variable, the value of Durbin-Watson 1.949 is smaller than *du* value of 1.979. According to the result of Durbin-Watson, there is no autocorrelation in ICDI as dependent variable. Durbin-Watson of ICWC value is also less than the two 7-du. Thus,  $dl \leq DW \leq du$ . Ghazali (2005) stated that if condition occurred, it can be concluded that there is no decision of autocorrelation without clear decision. Because of

conditions, researcher examines autocorrelation by Run Test. Results of Run test are as follows. Results of Run test completely available in Appendix 3.

**Table IV. 12**

**Run Test Result**

Description	ICWC
Z	-0.174
Asymp. Sig (2-Tailed)	0.862

Sources: secondary data, processed

Based on the result of Run Test, the decision of autocorrelation diagnostic for ICWC as dependent variable is no autocorrelation there. It can be seen by *Asymp. Sig (2-Tailed)* values of  $0.862 > \alpha (0.05)$ .

#### **4. Heteroscedasticity Test**

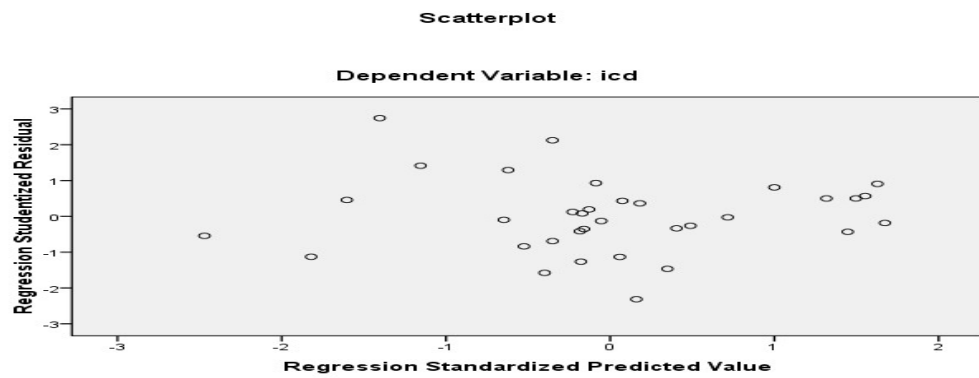
Heteroscedasticity test aims to examine test whether residual variance going dissimilitude from one observation to the observation of others in the regression model. To know whether there was heteroscedasticity or not can be seen on scatter plots or by Park test (Ghazali, 2005). Based on

the Park's scatter plots, can be noted that there is no heteroscedasticity.

Heteroscedasticity test results can be seen completely in appendix 3.

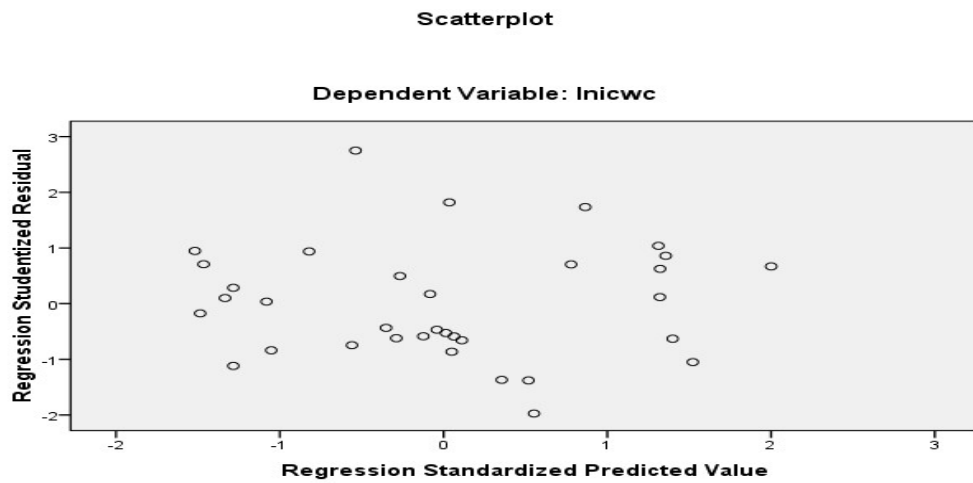
**Figure IV.1**

**Scatterplot of ICDI as dependent variable**



**Figure IV.2**

**Scatterplot of ICWC as dependent variable**



## 2. Multiple Regression Analysis

Regression analysis was essentially on the dependency study of the dependent variable to one or more independent variables. It was aimed to estimate and / or predict the means of population or the mean value for dependent variables based on the value of independent variable known (Gujarati, 2003 in Ghazali, 2005).

The result of regression analysis is coefficients for each independent variable. Coefficients obtained by predicting value of the variable with a dependent equation. Regression coefficients calculated with the goal of minimize distortions between actual value and the value of dependent variable estimation based on existing data (Tabachnick, 1996 in Ghazali, 2005). This study examined the influence of more than one free variable (metric) of a dependent variable, so that the statistical method used is multiple regression analysis, with the regression model used was:

$$ICD = \beta_0 + \beta_1 ODi + \beta_2 AGEi + \beta_3 ROAi + \beta_4 LnTAi + \beta_5 LEVi + \beta_5 AUDITTYPEi + \beta_5 RDUALi + \epsilon_i$$

Based on the regression model, can be noted that in research conducted twice regression analysis test for the dependent variable intellectual capital disclosure index (ICDI) and the calculation of the number of words (word count) intellectual capital disclosure (ICWC).

Coefficients determination ( $R^2$ ) is used to measure ability to explain variations in the model dependent variables.  $R^2$  value indicates small ability of independent variables in explaining variations in limited dependent variable. Fundamental weakness of determination coefficient is biased towards the number of independent variables included in the model. Each one additional independent variable, the  $R^2$  certainly increases, no matter whether these variables affect significantly to the dependent variable. Therefore, many researchers recommend to uses value of Adjusted  $R^2$  regression model to assess the best (Ghazali, 2005).

Significant influence of partial of each independent variable on the dependent variable can be the size of the *sig* value *t*. When the value of a *sig t* less than level of significant. Independent variables are partial significant effects on the dependent variables. Conversely, if the value of *sig t* greater level of significance the independent variable is the partial effect is not significant to the dependent variable (Ghazali, 2005).

#### **A. ICDI as Dependent variable**

The following is a summary of the display output SPSS version 16.00 on the test multiple Regression using enter method. Furthermore, SPSS output can be seen in

the appendix 5.

**Table IV. 13**  
**Result of Multiple Regression by ICDI as Dependent Variable**

Variable	Coeffisien	t	Sig.
(Constant)	-	2.094	.046
Ownership Diffusion (OD)	-.089	-.395	.696
Company Age (AGE)	.430	2.038	.052
Leverage (LEV)	.346	1.633	.019
Profitability (ROA)	.209	2.382	.115
Firm's size (Ln TA)	-.072	-.308	.760
Role of Duality (RDUAL)	-.421	-2.188	.038

Audit Type (AUDITTYPE)	-.389	-1.833	.078
R Square	.346		
Adjusted R Square	.170		
Std. Error Estimate	.06914		
F	1.966		
Sig.	.099a		

---

Sources: secondary data, processed  
Significant at 0.05

Adjusted R<sup>2</sup> table shows the value of 0.170. This can be seen the value of the independent variables. The ownership diffusion as proxy ownership structure can explain the variations in dependent variables. In the intellectual capital disclosure (ICD) by variation (ICDI) shows that adjusted R<sup>2</sup> only 17% and 83 % explained by other variable outside the model.

From the F test or ANOVA test, F value obtained probability value of 1.966 with significant values of 0.099. The significant values was less than 0.10, then the regression model can be used to predict intellectual capital disclosure (ICD) or it can be said that ownership diffusion affect simultaneously the intellectual capital disclosure (ICD).

The results of regression in the table IV.13, shows that regression coefficients of ownership diffusion (OD) is negative values of the 0.395 level significant 0.696. This shows that the OD value is not significant, because of significant value of  $0.696 > 0.05$ . Thus, the hypothesis is rejected. Negative association indicated by the value of  $t$  -0.395. .

Firm's size (LNTA) shows that significance value of 0.760, below the 0.10. Thus it can be concluded that the size of the company (TA) insignificantly affect

the level of intellectual capital disclosure by value of *sig t* 0.760 and it shows negative relationship of value -0.308. Profitability represented by ROA, appeared value *t* of 2.382 and insignificant influenced on the intellectual capital disclosure by *sig t* value of 0.115 on the significance level of 0.05. Leverage the value of significance is 0.019, below the 0.05. The values of 0.019 indicates that the leverage affect intellectual capital disclosure. Leverage coefficients indicate positive value. Role of duality, in fact has significant influence on the intellectual capital disclosure to the value -2.188. Role of duality has a significant negative direction with .038 at level significant of 0.05. Auditor type, in fact has a significant influence on the intellectual capital disclosure to the value -1.833. Type of auditor firm has negative significant direction with the .078 level significant of 0.10. Company age has significant influence on the intellectual capital disclosure to the value 2.038. Value .052 was less than 0.10.

## **B. ICWC as Dependent variable**

The following is a summary of the display output SPSS version 16.0 on the test multiple Regression using enter method For furthermore SPSS output can be seen in the appendix 5.

**Table IV. 14**

### **Result of Multiple Regression by ICWC as Dependent Variable**



Variable	Coeffisien	t	Sig.
(Constant)		6.406	.000
Ownership Diffusion (OD)	-.040	-.187	.853
Company Age (AGE)	.161	.794	.434
Leverage (LEV)	.266	1.308	.202
Profitability (ROA)	-.215	-1.128	.270
Firm's size (Ln TA)	-.151	-.673	.507
Role of Duality (RDUAL)	-.390	-2.109	.045
Audit Type (AUDITTYPE)	-.175	-.858	.399
R Square	.396		
Adjusted R Square	.234		
Std. Error Estimate	.54815		
F	2.440		
Sig.	.046a		

\* Level of significant at 0.05, source: secondary data, processed

Adjusted R<sup>2</sup> table shows the value of 0.234, the value of this can be seen that the independent variables. Such the ownership diffusion as proxy ownership structure can explain volume in dependent variables. Intellectual capital disclosure (ICD) of by volume of ICD (ICWC) shows adjusted R<sup>2</sup> only 23.4 % and of 76.6 % explained by other variable outside model.

From the F test or ANOVA test, F value obtained probability value of 2.440 with significant values of 0.046. Significant value less than 0.05. The regression model can be used to predict intellectual capital disclosure (ICD) or it can be said that ownership diffusion affect together to the intellectual capital disclosure (ICD).

The results of regression in the table IV.13, shows that regression coefficients of ownership diffusion (OD) is negative values 0.187 on level

significant 0.853. This shows that the OD value is not significant, because of significant value of  $0.853 > 0.05$ . Thus, the hypothetical rejected. Negative association indicated by the value of  $t$  -0.395.

To control variable, the following description are interpretation result of control variable influenced on intellectual capital disclosure by multiple regression analysis. Firm's size (LNTA) has insignificance value of 0.507 on any significance levels. Thus it can be concluded that the size of the company (TA) insignificantly affect the level of intellectual capital disclosure and it also shows negative relationship of value -0.673. Profitability represented by ROA, appeared value  $t$  of -1.128 and insignificant influenced on the intellectual capital disclosure by *sig t* value of 0.270 on the significance level of 0.05. Leverage has the value of significance is 0.019, below the 0.05. This value indicates that the leverage affect the intellectual capital disclosure. Leverage coefficients indicate positive value of 1.308. Role of duality, in fact have a significant influence on the intellectual capital disclosure to the value -2.188. Role of duality has negative significant direction with 0.045 at level significant of 0.05. Auditor type, in fact has significant influence on the intellectual capital disclosure to the value -2.109. Type of auditor audit the company has insignificant negative direction with the 0.399. Company age has insignificant influence on the intellectual capital disclosure to the probability value of 0.794.

### **3. Discussion**

According to the multi regression results interpretation, researcher analyzing the

phenomenon based regression analysis. The table below shows the comparison between predicted sign and actual sign of each variable independent and control.

**Table IV. 15**  
**Comparison Sign both Prediction and Actual**

Variables	Predicted Sign	Actual Sign		Hypothesis Supporting	
		ICDI	ICWC	ICDI	ICWC
OD	-	-	-	None	None
LnTA	+	-	+	None	None
AGE	-	+	+	Weak	None
ROA	+	+	-	None	None
LEV	-	+	-	Medium	None
AUDITTYPE	-	-	-	Weak	None
RDUAL	-	-	-	Medium	Medium

Source: secondary data, processed.

Significant levels: significant at 0.10 = weak, significant at 0.05= medium

## H. Ownership Diffusion

This shows inconsistencies to Li, et.al (2008) and Oliveira, et. al (2008). Banhaj and Plemborg (2008) mentioned about two possibilities of an impact of ownership concentration in the company. First, a higher level of ownership concentration might provide less voluntary disclosure since shareholder have an inside way of getting information. In contrast, large shareholder may monitor management to provide more voluntary disclosure in order to reduce a problem of asymmetry information.

This research finding in line to Gracia-Mecca (2005) that found no association ownership diffusion on intellectual capital because the usefulness of intellectual capital disclosure via presentation of Spanish companies to financial analysts is for their decision-maker. Firms with closely-held ownership are

expected to have less information asymmetry between management and dominant shareholders who typically have access to the information they need and can provide an active governance system that is difficult for smaller, more passive and less-informed investors (Cormier et al., 2005). This is particularly relevant to intellectual capital disclosure because fund managers have access to such information via private communication channels (Holland, 2006).

This research finding appropriate in contrast to Li et. al (2008) which found association ownership structure on intellectual capital disclosure but no association in role of duality. In this research found no association ownership diffusion on intellectual capital but there was association in role of duality. The reason was There is widespread acknowledgement that a dominant personality commanding a firm may be detrimental to the interests of shareholders, and this phenomenon has been found to be associated with poor disclosure (Forker, 1992) and CEO entrenchment, resulting in ineffective monitoring of managerial opportunistic behavior (Haniffa and Cooke, 2002). Concentration of decision-making power resulting from role duality could impair the board's oversight and governance roles, including disclosure policies. Separation of the two roles provides the essential checks and balances on management behavior (Blackburn, 1994).

## **I. Firm's Size**

This result is not consistent with previous research. This is because in this study, researchers did not differentiate between firms in which have both large and small

asset. Although, this finding consistent to Almilia and Retrinasari (2007) that found firm's size only positively significant to mandatory disclosure. In the case voluntary disclosure, firm's size is not significant. Intellectual capital disclosure include on voluntary disclosure (Cerbioni and Parboneeti, 2007).

#### **J. Company Age**

The finding of company age in the case ICDI as dependent variable is not consistent to Akhtaruddin (2005) and Hossain (2008). They found that the level of disclosure was not influenced by the age of a bank or the number of years the bank began business. However their findings were in line to this research findings in the case of ICWC as dependent variable.

The findings in ICDI consistent to Kakani et. al (2001) found that newer and smaller firms take to the market in spite of disadvantages like their lack of capital, brand name, and reputation. So that, intellectual capitals disclosures influenced by company age and positive significant.

#### **K. Profitability**

In the case ICDI as dependent variable, findings is in line to Ullmann (1985) and Haniffa and Cooke (2005). Level of profitability of the company indicated that the ROA, a significant effect on the level of disclosure in company annual report. ROA positive coefficients indicated in the table shows that there is a positive relationship between the profitability of the intellectual capital disclosure. This findings also in line to Gracia-Mecca (2005) that also found positive in significantly ROA on intellectual capital disclosure.

Although, in the case ICWC as dependent variable there is negative insignificant effect ROA to intellectual capital disclosure. This finding consistent to Lim. et. al (2007), Li, et. al (2008), and Oliveira et, al (2008) that found insignificantly ROA to level disclosure except to historical financial information.

#### **L. Leverage**

In the case ICDI as dependent variable, leverage has negative significant value. This finding consistent with the research Tan and Tower (1999) in Mangena and Pike (2005) indicate that the negative association of Finnish companies use, and the company's Singapore and Australia respectively. Mangena and Pike (2005) state that the level of leverage affect the agency problem because the disclosure in line with the increased level of debt.

In the case ICWC as dependent variable, leverage coefficients indicate a positive and insignificant value. This result is not consistent with some results of research that uses leverage. But this findings consistent to Ahmad and Courtis (1999) that found insignificant positive association between leverage and disclosure levels.

#### **M. Firms Audit (Audit Type)**

The finding in the case ICDI as dependent variable was in line with research conducted by Wallace et. al (1994), Hossain et. al (1995), Depoers (2000) says that there is no empirical association support between the size of a strong company

with a broad audit of the information revealed. Thus, the relationship between the firm's types of independent auditors with intellectual capital disclosure is significant as the negative test results in this research.

Although, the finding in the case ICWC as dependent is not consistent to Singhvi and Desai (1971), and Firth (1979) that the auditor of a company that big and famous can encourage companies to disclose more information. However, it was consistent to Ahmed and Courtis (1999) found that there was no significant association between audit firm and level of voluntary disclosure but they found audit form and mandatory disclosure.

#### **N. Role of Duality**

The findings of this research confirm the findings of Ho and Wong (2001) which found negative insignificant relationship in levels of voluntary disclosure caused the dominant personality. Gul and Leung (2000) found that the CEO has significant dominance of the low voluntary disclosure is the company. According to Ho and Wong (2001) which found that person who holds two roles at the same time will tend to save and not revealing information to outside parties. Fama and Jensen (1983) argue that when a camp as a chairman and CEO, it will tend to be impartial to the management of the stockholder. Despite of these prior researches, it rationale that there is significant effect role of duality on intellectual capital disclosure.

## CHAPTER V



## **CONCLUSION**

### **A. Conclusion**

The conclusions of the research findings are:

1. In general, there is no significant relationship between ownership structures (ownership diffusion) and intellectual capital disclosure in the Islamic bank in Asia. In the other words, hypothesis in this research is rejected.
2. For control variables, the results is different both ICDI as the dependent variable and ICWC the dependent variable. For ICDI as a dependent variable, in this research find that the control variables are significant except firm's size and ROA. For ICWC as dependent variables, control variables are insignificant except on role of duality.

### **B. Limitation**

The research limitations are:

1. There is no institution that records the number of Islamic banks in Asia.
2. This research use data sample collected by panel data methods and only get 34 annual reports. It is caused the limitation of the number of Islamic bank.
3. Bias may occur by counting all word in the phrase or sentence in content analysis methods. It is caused that different grammar used in the sentence can influence the number of word.

### **C. Recommendation**

Researchers have any suggestions for the next research can

1. take research samples in larger sample areas. For example in Asia-Africa. This is recommended as research Zahn (2005) who examined Y2K disclosure commercial banks in the Asia-Pacific,
2. add the number of samples using the annual report of year 2008,
3. can compare both Islamic bank with large and small assets,
4. add the cultural value as a variable in the model by using Hofstede's index. Zahn (2005) examine the factors that affect the issues of Y2K disclosure on the banks in Asia-Pacific region. It is expected that the presence variables can improve the better in research model,
5. can examine the influence of the ownership structure of each component of intellectual capital disclosure, such human capital, structural capital, and relational capital,
6. use only key of word for word count analysis in order to avoid bias which may occur in grammar problem.

## BIBLIOGRAPHY

- Abeysekera, I. 2006. The Project of Intellectual Capital Disclosure: Researching the Reasearch. *Journal of Intellectual Capital*, 7 (1): 61-77
- Abeysekera, I. and Guthrie, J. 2005. An Empirical Investigation of Annual Reporting Trends of Intellectual Capital in Sri Lanka. *Critical Perspectives in Accounting*, 16 (3): 151-163
- Aboody, D. and Lev, B.1998. The Value Relevance of Intangibles: The Case of Software Capitalization. *Journal of Accounting Research*, 36 (Supplement): 161–191
- Ahmad, Nik Neztı Nik. 2004. Environemnetal Dislosure in Malaysian Annual Report: A Legitimacy Theory Perspective. *IJCM Vol. 14, No.1* pp.44-57
- Ahmed, K and Courtis, J.K. 1999. Associations between Corporate Characteristics and Disclosure Levels in Annual Report: a Meta-Analysis. *British Accounting Review*. Vol.31.pp.35-61
- Akhtaruddin, M. 2005. Corporate Mandatory Disclosure Practice in Bangladesh. *International Journal of Accounting*, 48: 399-422
- Almilia, Luciana Spica and Retrinasari, Ikka. 2007. Analisis Pengaruh Karakteristik Perusahaan terhadap Kelengkapan Pengungkapan dalam Laporan Tahunan Pewrusahaan Manufaktur yang Terdaftar di BEJ. National Seminar's proceeding. Economics Faculty, University of Trisakti, June 9
- Andriensen, D.G and Stam, C.D. 2005. Intellectual Capital of The European Union. The 7th McMaster World Congres on The Management of Intellectual Capital and Innovation. Januari 19-21, Hamilton, Ontaro, Canada
- Agustianto. 2008. Evaluasi Bank syariah 2008. [www. Niriah.com](http://www.Niriah.com)
- Banhaj, J and Plemborg, T. 2006. Value Relevance of Voluntary Disclosure in the Annual Report. *Accounting and Finance*, Vol.48. pp.159-180
- Bank Mumalat Indonesia. 2003. Annual Report BMI 2003. [www.bankmuamalat.co.id](http://www.bankmuamalat.co.id)
- Barth. M. E., Kasnik, R., and McNichols, M. 2001. Analyst Coverage and Intangible

Asset. Journal Of Accounting Research, 39 (1): 1-34

Belkaoui, Ahmed and Philip G. Karpik. 1989. Determinant of the Corporate Decision to Disclose Social Information. Accounting, Auditing, and Accountability Journal, 2,1 pp 36-51

Beng, Phar Kim. 2008. The Global March of Islamic banking. UEA: Emirates Business

Bonfour, A. 2003. The IC-dVAL Approach. Journal of Intellectual Capital. Vol.4, No.1. pp.396-412

Bontis, N. 2000. Assessing knowledge assets: A Review of The Models Used to Measure Intellectual Capital. Queen's management Research Centre for Knowledge-Based Enterprises

\_\_\_\_\_. 2002. Intellectual Capital Disclosure in Canadian Corporations. Journal of Human Resource Costing and Accounting, 7 (1/2): 9-20

Bontis, N., W.C.C. Keow., S. Richardson. 2000. Intellectual Capital and Business Performance in Malaysian Industries. Journal of intellectual Capital

Boubyan Bank. 2007. Annual Report BoubyanBank 2007. [www.bankboubyan.com](http://www.bankboubyan.com)

Bozzolan, S., Favotto, F. and Ricceri, F. 2003. Italian Annual Intellectual Capital Disclosure: An Empirical Analysis. Journal of Intellectual Capital, 4 (4): 543-558

Brennan, N. and Connel, B. 2000. Intellectual Capital: Current Issue and Policy Implications. Journal of Intellectual Capital, 1 (3), 206-240

Brennan, N. 2001. Reporting Intellectual Capital in Annual Reports: Evidence from Ireland. Accounting, Auditing & Accountability Journal, 14 (4): 423-436

Bryman, A, dan E, Bell. 2007. Business Research Methods. UK: Oxford University Press

Bukh, P. N. 2003. Commentary: The Relevance of Intellectual capital Disclosure: A Paradox?. Accounting, Auditing & Accountability Journal, 16 (1): 49-56

Canibano, L., Garcia-Ayuso, M., and Sanchez, P. 2000. Accounting for Intangibles: A

Literature Review. *Journal of Accounting Literature*, 19: 102-130

Cerbioni, F. and Parbonetti, A. 2007. Exploring the Effects of Corporate Governance on Intellectual Capital Disclosure: An Analysis of European Biotechnology Companies. *European Accounting Review*, 16 (4): 791-826

Chalmers, K and Godfey, J. 2004. Reputation Costs: The Impetus for Voluntary Derivative Financial Instrument Reporting. *Accounting, Organization and Society*. Vol. 29. pp. 95-125

Chaminade, C. and Roberts, H. 2003. What It Means Is What It Does: A Comparative Analysis of Implementing Intellectual Capital in Norway and Spain. *European Accounting Review*, 12 (4): 733-751

CIMA.2001. Managing the Intellectual Capital within Today's Knowledge-Based Organization. Technical Briefing-September

Conger, J.A, Finegold, dan E.E Lawler. 1998. Appraising Boardroom Performance. *Harvard Business Review* 76 (January-February), pp 136-148

Cooke, T. E. 1989. Disclosure in the Corporate Annual Reports of Swedish Companies. *Accounting and Business Research*, 19 (74), 113-124

\_\_\_\_\_. 1992. The Impact of Size, Stock Market Listing and Industry Type on Disclosure in the Annual Reports of Japanese Listed Corporations. *Accounting and Business Research*, 22 (87).pp 229-237

Cormier, D, Magnan, M., and van Velthoven, B. 2005. 'Environmental Disclosure Quality in Large German Companies: Economic Incentives, Public Pressures or Institutional Conditions?'. *European Accounting Review* Vol. 14 (1): 3-39

Craig, R. and Diga, J. 1998. Public Disclosure in ASEAN. *Journal of International Financial Management and Accounting*, 9 (3), 247-273

Cuganesan, S.,N. Finch., and T. Carlin. 2007. Intellectual Capital Reporting: A Human Capital Focus. *Academy of Accounting and Financial Studies* Vol. 12 No. 1

Dharma, S., 2004. Formasi Modal Manusia dan Strategi Inovasi, *Usahawan*, No. 9, Tahun XXXIII, September: 25-30

- Depoers, F. 2000. A Cost Benefit Study of Voluntary Disclosure: Some Empirical Evidence from French Listed Companies. *The European Accounting Review*. Vol. 9 (2). Pp. 245-263
- Dumontier, D and Raffournier, B. 1998. Why Firms Comply Voluntary with IAS: An Empirical Analysis with Swiss Data. *Journal of International Financial Management and Accounting*. Vol. 29 (3). Pp. 1325-1359
- Edvinson, Leif and Sullivan, P. 1996. Developing Model for Managing Intellectual Capital. *European Management Journal*, Vol.14, No.4. Pp 356-364
- Eng, L. L. and Mak Y. T. 2003. Corporate Governance and Voluntary Disclosure. *Journal of Accounting and Public Policy*. Vol.22. Pp.325-345
- Fama E.F. and Jensen M. 1983 Separation of ownership and control, *Journal of Law and Economics*, 26(2), pp. 301-326
- Firer, S. and Williams, S. Mitchell. 2003. Association Between the Ownership Structure of Singapore Publicly Traded Firms and Intellectual Capital Disclosures. [www.ssrn.com](http://www.ssrn.com)
- Frederiksen, J.V. and Westphalen, S.A. 1998. Human Resource Accounting: Interests an Conflicts. Thessaloniki, Greece, CEDEFOP European Centre for the Development of Vocational Training.
- Freedman, M dan Jaggi, B. 1982. Pollution Disclosure, Poluution Performance. *The International Journal of Management Science*, pp 167-176
- Forker, J. J. 1992. Corporate Governance and Disclosure Quality'. *Accounting and Business Research*, 22 (86) 111–124
- Garcia-Meca, E. and Martinez, I. 2005. Assesing the Quality of Disclosure on Intangible in the Spanish Capital Market. *European Business Review*, 17 (4): 63-94
- Ghazali, Imam. 2005. Analisis Multivariate dengan Program SPSS. Semarang: BP UNDIP
- Goh, P. C. and Lim K. P. 2004. Disclosing Intellectual Capital in Company Annual Report: Evidence from Malaysia. *Journal of Intellectual Capital*, 5 (3): 500-510

- Gul, F.A, and Leung, S. 2002. CEO Dominance and Voluntary Disclosure Strategies in Hong Kong Annual Report. Working Paper. City University of Hong Kong.
- Guthrie, James and Petty, R. 2000. Intellectual Capital: Australian Annual Reporting Practices. *Journal of Intellectual Capital*, 1 (3): 241-251
- Guthrie, J., R. Petty., K. Yongvanich. 2004. Using Content Analysis as a Research Method to Inquire into Intellectual Capital Reporting. *Journal of Intellectual Capital* 5 (2): 282-293.
- Guthrie, J., R. Petty., F. Ricceri. 2006. The Voluntary Reporting of Intellectual Capital: Comparing Evidence from Hong Kong and Australia. *Journal of Intellectual Capital* Vol. 7 No. 2.Pp. 254-271
- Gray, S.J., Meek, G.K. and Roberts, C.B. 1995. International Capital Market Pressures and Voluntary Annual Report Disclosures by US and UK Multinational Companies”, *Journal of International Financial Management and Accounting*. Vol. 6 (1).
- Habersam, M. and Piber, M. 2003. Exploring Intellectual Capital in Hospitals: Two Qualitative Case Studies in Italy and Austria. *European Accounting Review*, 12 (4): 753-779
- Haniffa, M. R. and Cooke, T. E. 2002. Culture, Corporate Governance, and Disclosure in Malaysian Corporations. *Abacus*, 38 (3): 317-349.
- \_\_\_\_\_. 2005. The Impact of Culture and Governance on Corporate Social Reporting. *Journal of Accounting and Public Policy*, 24: 391-430.
- Haniffa, M.R and Hudaib, M. 2004. Disclosure Practices of Islamic Financial Institutions: An Exploratory Studi. Working Paper
- Harahap, S. S., and J. Gunawan. 2005. An Examination of Corporate Social-Environmental Disclosure in Annual Reports of Indonesian, Malaysia and Australian Islamic banking. *Indonesian Management and Accounting Research* Vol. 4 No. 1: 73-99.
- Harrison, S and P.H Sullivan. 2000. Profitting Form Intellectual Capital: Learning from Leading Companies. *Journal of Intellectual Capital*. Vol.1, No.3, pp.

33-46

- Hartono, Jogyanto. 2005. *Metode Penelitian Bisnis: Salah Kaprah and Pengalaman-Pengalaman*. Yogyakarta: BPFE.
- Healy, P.M., and K.G. Palepu. 2001. Information Asymmetry, Corporate Disclosure, and The Capital Market: A Review of the Empirical Disclosure Literature. *Journal of Accounting and Economics* 31: 405-440.
- Ho, Simon S. M. and Kar Shan Wong. 2001. A Study of The Relationship between Corporate Governance Structures and The Extent of Voluntary Disclosure. *Journal of International Accounting, Auditing*. Pp791–826
- Holland, J. 2006. A Model of Corporate Financial Communication, Institute of Chartered Accountants of Scotland (ICAS): Edinburgh.& Taxation, 10: 139-156.
- Hosain, M, Perera, M and, Rhaman, A. 1995. Voluntary Disclosure in The Annual Reports of New Zealand Companies. *Journal of International Management and Accounting*. Vol. 6 (1). Pp. 69-87
- Hossain, Muhammed. 2008. The Extent of Disclosure in Annual Report of Banking Companies: The Case of India. *European Journal of Science and Research*, 23 (4).Pp. 660-681
- Ittner, C. and Larcker, D. 1998. Are Non-Financial Measures Leading Indicators of Financial Performance? An Analyst Satisfaction Survey. *Journal of Accounting Research*, 36 (Supplement): 1–35
- Jensen, M.C dan Meckling, W.H. 1976. Theory of the Firm: Managerial Behavior, Agency Cost, and Ownership Structure. *Journal of Financial Economics*, 3: 305-360
- Johanson, U., M. Martensson and M. Skoog. 1999. Measuring and managing intangibles:Twelve Swedish qualitative exploratory case studies. Working Paper. Stockholm University.
- Kakani, R.K; Saha, R, and Reddy, V.N. 2001. Determinants of Financial Performance of Indian Corporate Sector in the Post-Liberalization Era: An Exploartory Study. National Stock Echange Innitaitive, Reserach Paper No.5
- Kahl, A, dan Belkoui, A. 1981. Bank Annual Report Disclosure Adequacy



- Internationally. *Accounting and Business Research*, Summer, pp.189-196
- Keenan, J dan Aggestam, M. 2001. Corporate Governance and Intellectual Capital: Some Conceptualisation. *Corporate Governance*, 9.Pp 259-275
- Kubo, I and A. Saka. 2002. An Inquiry into the Motivations of Japanese Banking Workers in the Japanese Financial Industry. *Journal of Knowledge Management*, Vol.6 No.3, pp.262-271
- Lev, B. and Zarowin, P. 1999. The Boundaries of Financial Reporting and How to Extend Them. *Journal of Accounting Research*, 37 (2).Pp. 353-386
- Lev, B. 2001. *Intangibles: Management, Measurement and Reporting*. Washington: The Brookings Institution
- Li. Jing, Richard Pike and Roszaini Haniffa. 2006. Intellectual Capital Disclosure in Corporate Annual Report: A European Comparison. Working Paper
- 
- \_\_\_\_\_. 2008. Intellectual Capital Disclosure and Corporate Governance Structure in UK Firms. *Accounting and Business Research*, 38 (2).Pp.137-159
- Malone et.al. 1993. An Empirical Investigation of The Extent of Corporate Financial Disclosure in The Oil and Gas Industry. *Journal of Accounting, Auditing, and Finance*. Vol.8 (3), pp. 249-273
- Mangena, Musa dan Pike, Richard. 2005. The Effect of Audit Committee Shareholding, Financial Expertise and Size on Interim Financial Disclosures. *Accounting and Business Research*. Vol. 35. No. 4. pp. 327-349. 2005 327
- Marr, B., D. Gray, and A. Nelly. 2003. Why do Firm Measure Their Intellectual Capital?. *Journal of Intellectual Capital* Vol. 14 No. 4.Pp. 441-464
- Marston, C. L. and & Shrives, P. J. 1991. The use of disclosure indices in accounting research: A review article. *British Accounting Review*, 23(3), pp. 195–210
- Milne, M., and Adler, R. 1999. Exploring the Reliability of Social and Environmental Disclosures Content Analysis. *Accounting, Auditing & Accountability Journal*. Vol. 12 (2). Pp. 237–256
- Mora, A and Rees, W. 1998. The Early Adoptionof Consolidated Accounting in Spain. *The European Accounting Review*. Vol. 7 (4). pp. 675-696

- Mouritsen, J. 1998. Driving Growth: Economics Value Added Versus Intellectual Capital. *Management Accounting Research*, 9 (4).Pp.461-483
- Mouritsen, J., Larsen, H. T., and Bukh, P. N. D. 2001. Intellectual Capital and the 'Capable Firm': Narrating, Visualising and Numbering for Managing for Managing Knowledge. *Accounting, Organisation and Society*, 26
- Mouritsen, J., Bukh, P. N. and Marr, B. 2004. Intellectual Capital and New Public Management: Reintroducing Enterprise. *Learning Organization*, 11 (4/5). Pp. 380-392
- Oliveira, Lidia, Lucia Lima Rodrigues, and Russell Craig.2008. Applying Voluntary Disclosure Theories to Intangibles Reporting: Evidence from the Portugese Stock Market. [www.ssrn.com](http://www.ssrn.com)
- Ongkorahardjo, Martina Dwi Puji Astri; Antonius Susanto, and Dyna Rachmawati. 2008. Analisis Pengaruh Human Capital Terhadap Kinerja Perusahaan (Studi Empiris pada Kantor Akuntan Publik di Indonesia). *Jurnal Akuntansi Keuangan*. Vol. 10, No. 1, Mei: 11-21
- Owusu-Ansah, S. 1998. The Impact of Corporate Attributes on The Extent of Mandatory Disclosure and Reporting by Listed Companies in Zimbabwe. *International Journal of Accounting* 33 (5), pp.605-631
- Parker, L.D. 1982. Corporate Annual Reporting:A Mass Communication Perspective. *Accounting and Business Research*, Autumn. Pp. 279-86
- Patelli, L and Prencipe, A. 2007. The Realtionship Between Voluntary Disclosure and Independent Directors in The Presence of A Dominant Shareholders. *European Accounting Review*, 16 (1) Pp: 5-33
- Petrash, G. 1996. Dow's journey to a Knowledge value management culture. *European Managenemnt Research*. Vol.14, No.4, pp.365-373
- Petry, P and J. Guthrie.2000. Intellectual Capital Literature Review: Measurement, Reporting, and Management. *Journal of Intellectual Capital*, Vo.1, No.2, pp.155-175
- Pike, S., A. Rylander., and G. Roos. 2001. Intellectual Capital Management and Disclosure. *The Strategic Management of Intellectual Capital and Organizational Knowledge: A Selection of Readings*, Oxford University

Press

Purnomosidhi, B. 2006. Praktik Pengungkapan Modal Intelektual pada Perusahaan Publik di BEJ. Jurnal Riset Akuntansi Indonesia Vol. 9 No. 1 Pp 1-20

Qatar Islamic Bank. 2006. Annual Report 2006. [www.qib.com.qa](http://www.qib.com.qa)

Raffournier, B.1995. The Determinants of Voluntary Financial Disclosure by Swiss Listed Companies. European Accounting Review, 4 (2) Pp: 261–280

Saleh, Norman Mohd, Rahman, Mara Ridhuan Abdul, dan Hasan. Mohamat Sabri. 2007. Ownership Structure and Intellectual Capital Performance in Malaysian Companies Listed in MESDAQ. [www.ssrn.com](http://www.ssrn.com)

Siddiqi, A.H. 1980. The Translation of The Meaning of Shahih Muslim, Muhammad Ashraf, Lahore

Singhvi, S. S. dan Desai, H. B. 1971. An Empirical Analysis of The Quality of Corporate Financial Disclosure. The Accounting Review 46 (1) Pp 129-138

Stewart, T. A. 1997. Intellectual Capital-The New Wealth of Organization. London: Nicholas Brealey

Subbarao, A. V., dan Zeghal, D. 1997. Human Resources Information Disclosure in Annual Report: An International Comparison. Journal of Human Resources Costing and Accounting, 2 (2) Pp: 53-73

Sujan, A. dan Abeysekera, I. 2007. Intellectual Capital Reporting Practices of the Top Australian Firm. Australian Accounting Review, 17 (2) Pp 71-83

Sullivan, Jr. P.H and P.H Sullivan Sr. 2000. Valuing Intangible Companies, an Intellectual Capital Approach. Journal of Intellectual Capital, Vol.1, No. 4, pp. 328-340

Sveiby, K. E. 1997. The New Organizational Wealth: Managing and Measuring Knowledge-based Asset. San Fransisco, CA: Berret-Koehler Publishers

Swartz, NP dan Firer, S. 2005. Board Structure and Intellectual Capital Performance in South Africa. Meditari Accountancy Research, 13 (2) Pp 145-166

Tayles, M., Pike R., dan Sofian S. 2007. Intellectual Capital, Management Accounting Practices and Corporate Performance: Perceptions of Managers. Accounting,

Auditing & Accountability Journal, 20 (4) Pp 522

- Tsang, W.K., 1998. A longitudinal study of corporate social reporting in Singapore: the case of the banking, food and beverages and hotel industries. *Accounting, Auditing and Accountability Journal* 11(5), pp. 624-635.
- Tsui, J., F.A. Gul. 2000. Corporate Governance and Financial Transparencies in the Hong Kong special Administrative Region of the People's Republic of China. [www.ssrn.com](http://www.ssrn.com)
- Ullman, A.E. 1985. Data in Search of A Theory: A Critical Examination in Relationship Among Social Performance, Social Disclosure, and Economics Performance of US Firms. *Academy Management Review* 10 (3), pp. 540-557
- Vandemaele, S. N., Vergauwen, P. G. M. C., and Smits A. J. 2005. Intellectual Capital Disclosure in the Netherlands, Sweden and the UK: A Longitudinal and Comparative Study. *Journal of Intellectual Capital*, 6 (3) Pp. 417–426
- Verrecchia R.E. 2001. Essays on disclosure. *Journal of Accounting and Economics*, 32(1-3). pp. 97-180
- Vergauwen, P., Bollen, L, and Oirbans, E. (2007). 'Intellectual Capital Disclosure and Intangible Value Drivers: An Empirical Study', *Journal of Intellectual Capital*, 45 (7) Pp. 1163–1180
- Wahidawati. 1997. Pengaruh Kepemilikan Manajerial dan Kepemilikan Institusional pada Kebijakan Hutang Perusahaan: Sebuah Perspective Teori Agency. *SNA IV* .Pp. 1084-1107
- Wallace, R. S. Olusegun, Kamal Naser and Araceli Mora. 1994. The Relationship between the Comprehensiveness of Corporate Annual Reports and Firm Characteristics in Spain. *Accounting and Business Research* Vol. 25, No. 97. pp. 41-53
- Wallace, R.S.O dan Naser, K. 1994. Firms Specific Determinants of Comprehensiveness of Mandatory Disclosure in The Corporate Annual Report of Listed Firms on The Stock Exchange in Hongkong. *Journal of Accounting and Public policy* 14, pp. 311-368

- Wallman, S.M.H. 1996. The Future of Accounting and Financial Reporting Part2: The Colorized Approach. *Accounting Horizon*, 10 (2), pp.138-148
- William, S. M. 2001. Is Intellectual Capital Performance and Disclosure Related?. *Journal of Intellectual Capital*, 2 (3): 192-203
- Widyaningrum, Ambar. 2004. Modal Intelektual. *Jurnal Akuntansi dan Keuangan Indonesia*, Vol.1 pp.16-25
- Wong, M., dan C. Gardner. 2004. Intellectual Capital Disclosure: New Zealand Evidence. *Journal of Literature Economics* M41
- Zahn, J.L.W Mitchell Van der. 2005. Factors Affecting Information Technology Problem Disclosure in Asia-Pacific Commercial Banks. *Financial Reporting, Regulation, and Governance Journal*, pp.1-26
- Zeghal, Daniel dan Ahmed, Sadrudin, A. 1990. Comparison of Social Responsibility Information Disclosure Media Used by Caanadian Firms. *AAA Journal*, pp 38-53
- Zhou, MM dan Panbuyen, P. 2004. The Association Between Board Composition and Different Types Disclosure. Unpublished Thesis

## Appendix 1

**Stock Exchange's Website and Amount Islamic Bank Listed**

<b>No.</b>	<b>Country</b>	<b>Stock Exchange's website</b>	<b>Amount Islamic Banking Listed</b>
<b>South West Asia</b>			
1	Afghanistan	www.kabulstockexchange.com	0
2	Bahrain	www.bahrainstock.com	3
3	Cyprus	www.cse.com	1
4	Palestina	www.pse.com	0
5	Iran	www.tse.or.id	4
6	Irak	www.isx-iq.net	1
7	Israel	www.hebrew.tase.co.il	0
8	Jordan	www.ase.com.jo	1
9	Kuwait	www.kuawitse.com	2
10	Lebanon	www.bse.com.lb	1
11	Oman	www.ase.com.jo	1
12	Qatar	www.dsm.co.qa	1
13	Saudi Arabia	www.gulfbase.com	3
14	Syria	www.syrialinks.com	1

15	Turkey	www.ise.org	1
16	UAE	www.adsm.co.ae	2
17	Yemen	www.yemensites.com	1
<b>South Asia</b>			
18	Bangladesh	www.dsebd.org	1
19	Bhutan	Unfinding website	0
20	India	www.nseindia.com	1
21	Maladewa	www._id.tixik.com	0
22	Nepal	www.nepalstock.com	0
23	Pakistan	www.kse.com.pk/www.lahorestock.com	2
24	Sri Lanka	www.cse.lk	0
<b>Midlle Asia</b>			
25	Kazakhstan	www.kase.kz	0
26	Kirgizia	www.questia.com	0
27	Uzbekistan	www.uzse.uz	0
28	Tajikistan	www.tajik-gateway.org	0
29	Turkmenistan	www.exchange.gov.tm	0
<b>South East Asia</b>			
30	Kambodia	ww.stockexchangecambodia.com	0
31	Laos	no website	0
32	Vietnam	www.vnstocks.com	0
33	Thailand	www.set.or.th	1
34	Myanmar	www.myanmar.gov.mm	0
35	Indonesia	www.idx.go.id	1
36	Malaysia	www.klse.co.my	1
37	Singapore	www.ses.com.sg	1
38	Brunei Darussalam	Unfinding website	0

39	Philipine	www.pise.org.ph	0
40	Timor Leste	no website	0
<b>East Asia</b>			
41	China	www.sse.com.cn	0
42	Japan	www.tse.or.jp/www.ose.or.jp	0
43	North Korea	www.mapsofworld.com	0
44	South Korea	www.kse.co.kr	0
45	Taiwan	www.tse.com.tw	0
46	Hongkong	www.hkex.com.hk	0
<b>Amount</b>			31

## Appendix 2

### Amount Purposive Sampling Islamic Bank Annual Report



No	Islamic Bank	Country	Islamic Bank Website	Annual Report Availability in Website		Match on Purposivve Sampling	
				Yes	No	Yes	No
1	Bank Muamalat Indonesia	Indonesia	<a href="http://www.bankmuamalat.co.id">www.bankmuamalat.co.id</a>	√		√	
2	Bank Islam Malaysia Berhad	Malaysia	<a href="http://www.bankislam.co.my">www.bankislam.co.my</a>	√		√	
3	<i>TheIslamic Bank of Asia</i>	Singapore	<a href="http://www.bankasia.co.sg">www.bankasia.co.sg</a>		√		√
4	Islamic Bank of Thailand	Thailand	www.isbt.co.th		√		√
5	Islamic Bank Bangladesh	Bangladesh	www.islamibankbd.com		√		√
6	Meezan Bank	Pakistan	www.meezanbank.com	√		√	
7	Bank Islami Pakistan Limited		www.bankislami.com.pk	√		√	
8	Al Salam Islamic Bank	Bahrain	www.alsalambahrain.net	√		√	
9	Bahrain Islamic Bank		www.bisbonline.com	√		√	
10	Shameel Bank		www.shamilbank.net	√			√
11	Bank Tejarat	Iran	www.tejaratbank.ir	√			√
12	Bank Melli		www.bmi.ir		√		√
13	Bank Mellat		www.mellatbank.com		√		√
14	Bank Refah		www.bankrefah.ir	√			√
15	Ar Rajhi Islamic Bank	Saudi Arabia	www.alrajhibank.com.sa	√			√
16	Bank Al Jazira		www.baj.com.sa		√		√
17	Abu Dhabi Islamic Bank	Uni Arab Emirates	www.adib.ae	√		√	
18	Al Hilal Bank		www.alhilalbank.ae		√		√
19	Sharjah Islamic Bank		www.sib.ae		√		√
20	Noor Islamic Bank		www.noorbank.com		√		√
21	Emirats Islamic Bank		www.emiratesislamicbank.ae		√		√
23	Dubai Islamic Bank		www.dib.ae	√			√
24	Lebanese Islamic Bank	Lebanon	www.lebaneseislamicbank.com.lb		√		√
25	Syria International	Syria	www.sib.sy		√		√

## Appendix 3

**Classic Assumption Test****A. Normality Test**

## 4. Dependent Variable: ICDI

**One-Sample Kolmogorov-Smirnov Test**

		Un standardized Residual
N		34
Normal Parameters <sup>a</sup>	Mean	.0000000
	Std. Deviation	.06137241
Most Extreme Differences	Absolute	.082
	Positive	.082
	Negative	-.069
Kolmogorov-Smirnov Z		.478
Asymp. Sig. (2-tailed)		.976
a. Test distribution is Normal.		

## 5. Dependent Variable: ICWC

### One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		34
Normal Parameters <sup>a</sup>	Mean	.0000000
	Std. Deviation	.48655343
Most Extreme Differences	Absolute	.131
	Positive	.131
	Negative	-.087
Kolmogorov-Smirnov Z		.762
Asymp. Sig. (2-tailed)		.608
a. Test distribution is Normal.		

### B. Multicollinearity Test

#### 1. Dependent Variable: ICDI

#### Coefficients<sup>a</sup>

Model	Un standardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	.387	.185		2.094	.046		
od	.000	.001	-.089	-.395	.696	.497	2.012
Inta	-.004	.013	-.072	-.308	.760	.462	2.166
age	.003	.002	.430	2.038	.052	.564	1.774
roa	.008	.004	.340	1.709	.099	.637	1.570
lev	.001	.001	.346	1.633	.115	.561	1.783
auditype	-.076	.042	-.389	-1.833	.078	.558	1.792
rdual	-.074	.034	-.421	-2.188	.038	.679	1.474

a. Dependent Variable: icd

**Coefficient Correlations<sup>a</sup>**

Model		rdual	age	od	lev	roa	auditype	Inta	
1	Correlations	rdual	1.000	-.085	.025	-.292	-.280	-.124	-.158
		age	-.085	1.000	-.320	.409	.081	-.239	-.505
		od	.025	-.320	1.000	-.043	.381	.444	.273
		lev	-.292	.409	-.043	1.000	.322	.246	-.466
		roa	-.280	.081	.381	.322	1.000	.130	-.103
		auditype	-.124	-.239	.444	.246	.130	1.000	-.132
		Inta	-.158	-.505	.273	-.466	-.103	-.132	1.000
	Covariances	rdual	.001	-4.521E-6	7.296E-7	-5.106E-6	-4.216E-5	.000	-6.888E-5
		age	-4.521E-6	2.470E-6	-4.279E-7	3.309E-7	5.622E-7	-1.562E-5	-1.016E-5
		od	7.296E-7	-4.279E-7	7.245E-7	-1.878E-8	1.437E-6	1.574E-5	2.979E-6
		lev	-5.106E-6	3.309E-7	-1.878E-8	2.652E-7	7.347E-7	5.282E-6	-3.072E-6
		roa	-4.216E-5	5.622E-7	1.437E-6	7.347E-7	1.967E-5	2.407E-5	-5.838E-6
		auditype	.000	-1.562E-5	1.574E-5	5.282E-6	2.407E-5	.002	-7.065E-5
		Inta	-6.888E-5	-1.016E-5	2.979E-6	-3.072E-6	-5.838E-6	-7.065E-5	.000

a. Dependent Variable: icd

## 2. Dependent Variable: ICWC

**Coefficients<sup>a</sup>**

Model	Un standardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	9.395	1.466		6.406	.000		
od	-.001	.007	-.040	-.187	.853	.497	2.012
lnta	-.068	.102	-.151	-.673	.507	.462	2.166
age	.010	.012	.161	.794	.434	.564	1.774
roa	-.040	.035	-.215	-1.128	.270	.637	1.570
lev	.005	.004	.266	1.308	.202	.561	1.783
auditype	-.283	.330	-.175	-.858	.399	.558	1.792
rdual	-.567	.269	-.390	-2.109	.045	.679	1.474

a. Dependent Variable:

lnicwc

**Coefficient Correlations<sup>a</sup>**

Model		rdual	age	od	lev	roa	auditype	Inta	
1	Correlations	rdual	1.000	-.085	.025	-.292	-.280	-.124	-.158
		age	-.085	1.000	-.320	.409	.081	-.239	-.505
		od	.025	-.320	1.000	-.043	.381	.444	.273
		lev	-.292	.409	-.043	1.000	.322	.246	-.466
		roa	-.280	.081	.381	.322	1.000	.130	-.103
		auditype	-.124	-.239	.444	.246	.130	1.000	-.132
		Inta	-.158	-.505	.273	-.466	-.103	-.132	1.000
	Covariances	rdual	.072	.000	4.585E-5	.000	-.003	-.011	-.004
		age	.000	.000	-2.690E-5	2.080E-5	3.534E-5	.000	.000
		od	4.585E-5	-2.690E-5	4.554E-5	-1.181E-6	9.031E-5	.001	.000
		lev	.000	2.080E-5	-1.181E-6	1.667E-5	4.618E-5	.000	.000
		roa	-.003	3.534E-5	9.031E-5	4.618E-5	.001	.002	.000
		auditype	-.011	.000	.001	.000	.002	.109	-.004
		Inta	-.004	.000	.000	.000	.000	-.004	.010

a. Dependent Variable: Inicwc

**C. Autocorrelation Test**

1. Dependent Variable: ICDI

**Model Summary<sup>b</sup>**

R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
.588 <sup>a</sup>	.346	.170	.06914	2.281

a. Predictors: (Constant), rdual, age, od, lev, roa, auditype, Inta

b. Dependent Variable: icd

## 2. Dependent Variable: ICWC

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.630 <sup>a</sup>	.396	.234	.54815	2.200

a. Predictors: (Constant), rdual, age, od, lev, roa, auditype, Inta

b. Dependent Variable: Inicwc

**Runs Test**

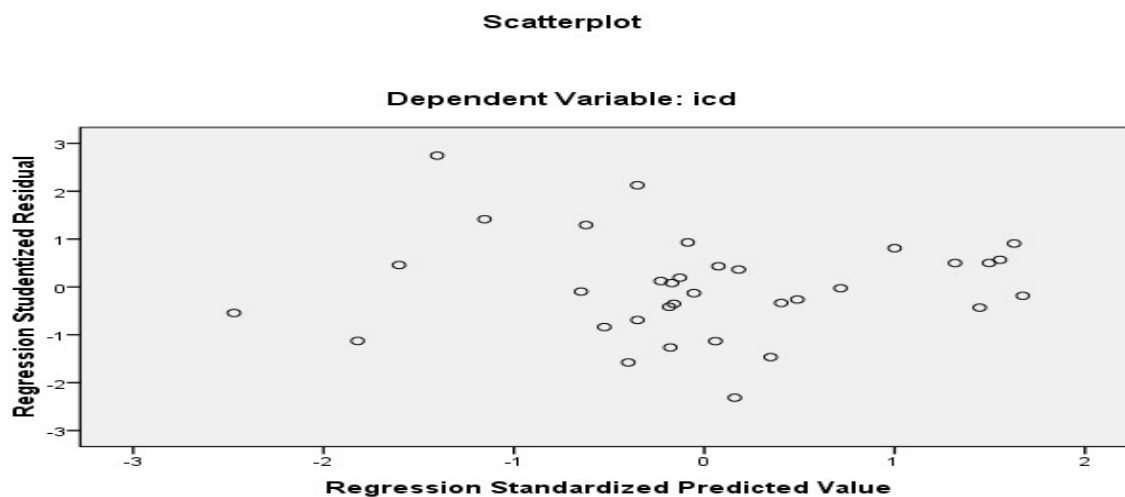
	Unstandardized Residual
Test Value <sup>a</sup>	-.03281
Cases < Test Value	17
Cases >= Test Value	17
Total Cases	34
Number of Runs	17
Z	-.174
Asymp. Sig. (2-tailed)	.862

a. Median

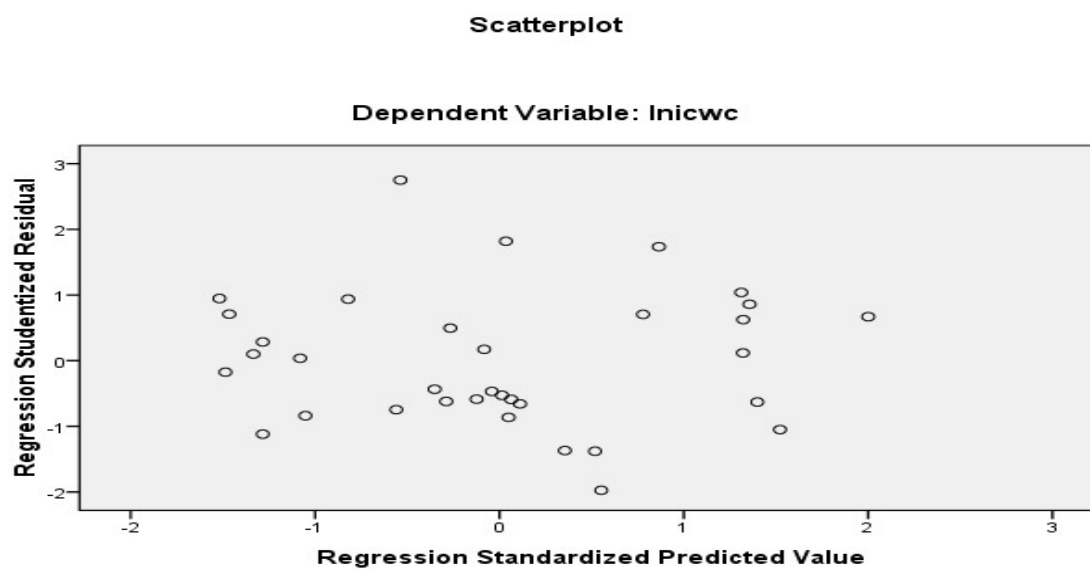
**D. Heteroscedasticity Test**

1. Dependent Variable: ICDI





2. Dependent Variable: ICWC



Appendix 4

### Descriptive Statistics

1. Dependent Variable: ICDI

**Descriptive Statistics**

	Mean	Std. Deviation	N
icd	.3549	.07589	34
od	52.4089	20.05566	34
Inta	14.6862	1.38234	34
age	14.8235	10.19944	34
roa	2.8913	3.40015	34
lev	64.3660	31.20812	34
auditype	.82	.387	34
rdual	.24	.431	34

## 2. Dependent Variable: ICWC

**Descriptive Statistics**

	Mean	Std. Deviation	N
lnicwc	8.3332	.62630	34
od	52.4089	20.05566	34
Inta	14.6862	1.38234	34
age	14.8235	10.19944	34
roa	2.8913	3.40015	34
lev	64.3660	31.20812	34
auditype	.82	.387	34
rdual	.24	.431	34

## Appendix 5

**Result of Hypothesis Testing**

## 21. Dependent Variable: ICDI

**Variables Entered/Removed<sup>b</sup>**

Model	Variables Entered	Variables Removed	Method
1	rdual, age, od, lev, roa, auditype, Inta <sup>a</sup>		. Enter

a. All requested variables entered.

b. Dependent Variable: icd

### a. T-Test statistics

**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	.387	.185		2.094	.046		
od	.000	.001	-.089	-.395	.696	.497	2.012
Inta	-.004	.013	-.072	-.308	.760	.462	2.166
age	.003	.002	.430	2.038	.052	.564	1.774
roa	.008	.004	.340	1.709	.099	.637	1.570
lev	.001	.001	.346	1.633	.115	.561	1.783
auditype	-.076	.042	-.389	-1.833	.078	.558	1.792
rdual	-.074	.034	-.421	-2.188	.038	.679	1.474

a. Dependent Variable: icd

### b. F-Test statistics

**ANOVA<sup>b</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.066	7	.009	1.966	.099 <sup>a</sup>
	Residual	.124	26	.005		
	Total	.190	33			

a. Predictors: (Constant), rdual, age, od, lev, roa, auditype, Inta

b. Dependent Variable: icd

## 22. Dependent Variable: ICWC

**Variables Entered/Removed<sup>b</sup>**

Model	Variables Entered	Variables Removed	Method
1	rdual, age, od, lev, roa, auditype, Inta <sup>a</sup>		. Enter

a. All requested variables entered.

b. Dependent Variable: Inicwc

## w. T-Test statistics

**Coefficients<sup>a</sup>**

Model	Un standardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
1 (Constant)	9.395	1.466		6.406	.000		
od	-.001	.007	-.040	-.187	.853	.497	2.012
Inta	-.068	.102	-.151	-.673	.507	.462	2.166
age	.010	.012	.161	.794	.434	.564	1.774
roa	-.040	.035	-.215	-1.128	.270	.637	1.570
lev	.005	.004	.266	1.308	.202	.561	1.783
auditype	-.283	.330	-.175	-.858	.399	.558	1.792
rdual	-.567	.269	-.390	-2.109	.045	.679	1.474

a. Dependent Variable: Inicwc

**x. F-Test statistics****ANOVA<sup>b</sup>**

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	5.132	7	.733	2.440	.046 <sup>a</sup>
Residual	7.812	26	.300		
Total	12.944	33			

a. Predictors: (Constant), rdual, age, od, lev, roa, auditype, Inta

b. Dependent Variable: Inicwc

