ANALYSIS OF CHANGES IN FINANCIAL REPORTING QUALITY IN JAPAN AFTER INTRODUCTION OF INTERNATIONAL FINANCIAL REPORTING STANDARDS (EVIDENCE FROM FIRMS LISTED IN TOKYO STOCK EXCHANGE)

BY

DAVID O. AJIKI

A DISSERTATION SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE AWARD OF MASTERS OF SCIENCE COMMERCE IN THE SCHOOL OF BUSINESS AND PUBLIC MANAGEMENT KCA UNIVERSITY

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MARCH 2017

DECLARATION

I declare that this dissertation is my original work and has not been previously published or submitted elsewhere for award of a degree. I also declare that this contains no material written or published by other, people except where due reference is made and author duly acknowledged.

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David Owuor Ajiki

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Dr. Njuguna

Dissertation Supervisor

ABSTRACT

This study analyzed the changes in financial reporting quality in Japan after introduction of International Financial Reporting standards (IFRS). Financial reporting quality has two fundamental attributes according to the conceptual framework of IASB: faithful representation and relevance. The proxy for faithful representation in the study was earnings management measured by discretionary accruals. The objectives of the study were: to determine changes in accruals and changes in relevance of financial information after IFRS introduction in Japan. Modified Jones model was used to measure accruals. Relevance was measured based on the ability of financial information to predict future stock prices. 45 firms which have prepared financial statements for at least 2 years based on IFRS were sampled. Analysis of accruals was done using paired t-test while regression model was used to determine the relevance of financial information before and after adoption of IFRS in Japan. The study found that changes in both discretionary and non-discretionary accruals after adoption of IFRS are not significant. This therefore mean that the efforts made by Japanese agencies and IASB to converge JGAAP with IFRS has eliminated major differences between the standards even though some slight differences still exist. Secondly, the study concluded that adoption of IFRS in Japan has not significantly influenced management's behavior in financial reporting. Finally, study also found that the relevance of financial information increased after adoption of IFRS.

Key Words: Financial reporting quality; faithful representation; relevance; IFRS adoption.

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DEFINITION OF TERMS

International Accounting Standards Board (IASB) – This is a UK based non-governmental organization which replaced IASC, introduced International Financial Reporting Standards.

International Financial Reporting Standards (IFRS) – These are the single standard issued by the International Accounting Standards Board (IASB)

Financial Reporting Quality – This is the ability of reported financial information to reflect the actual economic events in the organization without any prejudice (**faithful representation**) as well as ability of the information to influence the decision of the users of such information (**relevance**). Earnings management and aggressive accounting reduces reporting quality (IASB; Kythreotis, 2014).

Earnings Management – This is a situation where the management uses accounting techniques to report a better picture of the company's business activities than the reality of the business performance and position (S. K. Chen, Lin, Wang, & Wu, 2010) and (A. S. Chen, Cheng, Cheng, & Chih, 2010)

ABBREVIATIONS

IASB – International Accounting Standards Board

JICPA – Japanese Institute of Certified Public Accountants

ASBJ – Accounting standards board of Japan

FASB – Financial Accounting Standards Board

G20 – This is an international forum for the governments and central bank governors from 20 major economies.

IMF – International Monetary Fund

IOSCO - The International Organization of Securities Commissions

IFAC – International Federation of Accounts

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CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

International Accounting Standards Board (IASB) developed a conceptual framework and International financial reporting standards (IFRS) with an objective of improving quality of financial reports and their value to the users. This was in the wake of some major accounting scandals in the world like Enron and WorldCom. According to the IASB's and FASB's conceptual frameworks, quality of financial information depends on two main fundamental characteristics: Faithful representation and Relevance.

Faithful representation is the correspondence between financial reports and the economic phenomena they purport to represent. It is the dependability of what is being described in the financial statements. This is enhanced by neutrality of information, completeness and whether the information is free from error. In case of faithful representation, there is no aggressive accounting which involves earnings manipulation and fraudulent accounting (Charles River & Associates, 2013).

Relevant accounting information results into a different decision if availed to users, by helping them to form predictions from past results, present status and future results or to confirm past predictions or expectations. Information can should improve decision makers' capacities to predict or by providing feedback on earlier expectations (FASB).

Financial reporting is aimed at providing provide high-quality financial information about the operations of economic entities and their economic condition at a particular point in time to be used by users to make economic decisions. Therefore it affects directly the decision making

by capital providers and other stakeholders with investment interest in the firm, (FASB, 1999; IASB, 2008). Quality is not considered only in the final output but also in the process of and parts such as disclosure of transactions, accounting policies and standards and judgments made in preparation of the statements, (Bushee & Noe, 2000).

IFRS have since been widely adopted around the world since 2002 when European Union Parliament agreed on a requirement that IFRS be used in financial reporting by companies listed in EU markets. Many international organizations have also endorsed the accounting standards including; G20, World Bank, IMF, Basel Committee, IOSCO and IFAC, (IASB). Currently 147 have adopted IFRS with the highest percentage being from Europe. Researchers have agreed that the benefits of having a single high quality reporting standards like, IFRS, would enhance the comparability of financial reporting, results to economies of scale in development of standards and protection of auditors against opinion shopping by managers (Ball, 2006) and (Schadewitz, 2009). However, IFRS may lead also to earnings management especially in Pension accounting if the pension system is not mature (Ball, 2006)

In Japan and United States of America, however full adoption of IFRS has not taken place. The US has been working with IASB on convergence projects to reconcile the differences between Generally Accepted Accounting Principles of United States and IFRS. Japan on the other hand has been working on two plans of adoption and convergence at the same time. The IASB and the Accounting Standards Board of Japan (ASBJ) worked on a project of convergence of IFRS Standards and Japanese Generally Accepted Accounting Principles (GAAP) between 2005 and 2007, the Tokyo Agreement. In December 2009, Financial Services Agency (FSA) permitted qualifying companies to apply IFRS from fiscal year ending on 31 March 2010. This

was due to the feeling that the widespread acceptance of IFRS in the world and in the major capital and financial markets outside Japan (Business Accounting Council, 2009). The globalization effects made Japan not to only pursue convergence but also work on a roadmap towards either compulsory or voluntary adoption of IFRS.

The proponents of the adoption process said that in the face of this globalization will enhance international comparability for investors, reduce the cost of investment for investors and enable Japanese firms raise capital more easily, improve efficiency of managing overseas operations by Japanese firms and enhance their competitiveness, (Business Accounting Council, 2009). After the Tokyo agreement the Business Accounting Council also expressed its intention for compulsory adoption of IFRS by 2012.

The intention for compulsory adoption of IFRS was later, in 2011, deferred indefinitely by the Financial Services Agency's minister and firms only adopt IFRS voluntarily. The reasons that informed the manager's decision include: the decision by the US Securities and Exchange Commission to postpone adoption of IFRS, representatives of leading Japanese companies and the Japanese Chamber of Commerce and Industry requested for the postponement, there was also resistance to the adoption by the Japanese Trade Union Confederation, earthquake and tsunami on March, 2011 and Contextual factors of Japan's institutional and legal environment, (Business Accounting Council 2009). Accounting Standards Board of Japan had also prepared the Japanese Modified International Standards which have very slight differences with IFRS. However, firms in Japan are still opting for voluntary adoption of IFRS. In October 2016 about 109 firms have adopted (Financial Services Agency 2016)

Initially, Japan had been using Japanese Generally Accepted Accounting Principles J-GAAPs and Generally Accepted Accounting Principles of United States US GAAPs. These are both rule based standards as opposed to the IFRS which are principle based. Rules-based accounting standards provide scope, treatment exceptions and detailed implementation guidance (Schipper, 2003) Principles-based accounting standards are based on a conceptual framework have no anti-abuse provisions. They require the preparers of financial statements, auditors and regulators to practice judgment when using such standards.

1.1.1. *Tokyo Stock Exchange (TSE)*

Tokyo stock exchange (TSE) was formed in 1878 and is currently the world's second largest stock market in terms of capitalization, fourth largest stock market in terms of equities traded and third largest stock market in terms of listed firms. It is based in Tokyo Japan and majority of the listed firms are Japanese firms but the investors are spread all over the world. The market is divided into three divisions; the First Section, Second Section and the Mothers section based on the level of development of the firms. Currently a total of about 3600 firms are listed in TSE in all the sections.

Financial reporting in TSE is regulated by the Financial Services Agency (FSA). The FSA also has the authority and control over adoption of IFRS in Japan together with other bodies like JICPA. After the FSA allowed voluntary adoption of IFRS in Japan about 109 firms had adopted IFRS, about 68 firms had prepared financial statements based on IFRS at least once by 31st march 2016. This is estimated to be about 20% of total market capitalization. The adoption process is still continuous and firms in the following industries were the first adopters: Pharmaceutical, Wholesale Trade, Oil & Coal Products, Information & Communication, Foods,

Precision Instruments Services, Metal Products, Glass & Ceramics Products, Chemicals, Transportation, Equipment, Other Financing Business, Retail Trade, Electric Appliances, Iron & Steel Securities & Commodity Futures, Machinery, Rubber Products, Nonferrous Metals, Land Transportation, Real Estate (Financial Services Agency 2015, 2016)

1.2 Problem Statement

Financial reporting in Japan had been based on Japanese Generally Accepted Accounting Principles (J-GAAP) and US GAAP which are both rule based accounting standards with scope, treatment exceptions and detailed implementation guidance while IFRS is principle based standards which give managers a chance to practice some judgments (Schipper, 2003). However, recently, Financial Services Agency of Japan allowed firms to adopt IFRS voluntarily.

Policy makers need empirical evidence to base their decisions on. Studies have contradictive evidence on the discretion that IFRS and other principle based standards give the management in financial reporting and how it can affect users of financial information. Some studies such as (Ahmed, Neel, & Wang, 2013; Arum, 2013; Aubert & Grudnitski, 2011; H. F. Chen, Tang, Jiang, & Lin, 2010; Chua, Cheong, & Gould, 2012; Iatridis, 2010) provided that adoption of IFRS has reduced discretionary accruals, ensured the timeliness in recognition of losses, reduced the reporting time as well as the predictive power of earnings,

On the other hand some studies argue that after adoption of IFRS, there is no change in accruals in Spain, UK, France and South Africa. In other EU countries studies such as (Ames, 2013; Cai, Rahman, & Courtenay, 2008; Callao & Jarne, 2010; Capkun, Cazavan-jeny, Jeanjean, & Weiss, 2011; Capkun, Collins, & Jeanjean, 2016) found that adoption of IFRS increased

discretionary accruals, earning smoothing and reduced the predictive power of earnings, hence lowering the quality of financial reports.

The proponents of principle based system argue that it will improve the quality of reported earnings to the shareholders since the management will have the opportunity of disclosing to the investors some superior information they have about the organization which the rule based standards do not allow. The opponents of principle based standards are concerned that the discretion given by principle based standards is an opportunity for management to engage in aggressive accounting.

Financial Services Agency of Japan agreed to voluntary adoption of IFRS. However since then not many studies have come out analyzing the effects of this policy on the quality of financial reporting. This study therefore intended to provide evidence on how introduction of IFRS in Japan has affected financial reporting quality and will add to the literature on whether principle based or rule based standards are preferable for financial reporting. The study sought to analyze the changes in financial reporting quality in Japan after the adoption of IFRS by the firms listed in Tokyo stock exchange

1.3 Objectives of the study

1.3.1. General objective

The general objective of the study is to analyze the changes in financial reporting quality in Japan after adoption of International financial reporting standards by firms listed in Tokyo Stock Exchange

1.3.2. Specific objectives

1) To determine the change in non-discretionary accruals after IFRS introduction in Japan

2) To determine the change in discretionary accruals after IFRS introduction in Japan

3) To determine the change in relevance of financial after IFRS introduction in Japan

1.3.3. Hypotheses of the study

H_{01}: *There is no significant change in non-discretionary accruals after introduction of IFRS in Japan*

H02: There is no significant change in discretionary accruals after introduction of IFRS in Japan

H03: There is no significant change in relevance of financial information after introduction of IFRS in Japan.

1.4 Scope of the study

This study is on one of the effects adoption of IFRS in Japan. It focused on the changes of financial reporting quality after adoption of IFRS in Japan. The IFRS adoption process in Japan has been on voluntary basis since March 2013. However the first company to adopt IFRS in Japan was in the financial year ended 31st March 2009. The analysis period therefore covers a period from 31st March 2007 to 31st March 2016.

1.5 Significance of the study

This study will be important to various groups of users especially those who are concerned about financial reporting as follows:

First, the IASB can use this study to evaluate whether they can consider JGAAP an equivalence of IFRS based on the effects of the two standards on financial reporting. This has been an area disagreement with JICPA insisting that JGAAP have been converged with IFRS through the JMIS project but IASB has not yet accepted to consider them equivalents.

Secondly, the Japanese firms can apply the findings of this study in their accounting policy decisions especially the decision on voluntary adoption of IFRS that has been allowed by financial services agency. It can help them to understand the benefits and disadvantages of adopting IFRS in their firms.

Finally, this study can be very important for the Financial Services Agency that for now have adopted a test drive approach towards adoption of IFRS. More studies in this area can give them information to either fully adopt IFRS for Japanese firms or totally reject the adoption before many firms go for voluntary adoption of the standards.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

This chapter provides information from publication on topics related to the study. It examines the contributions of various scholars and authors have said about changes that have happened in accounting and financial reporting in other countries that adopted it earlier. It also discusses the related studies that have been conducted and outlines that gaps that exist in relation to research problem. The chapter has four main parts; the concept of financial reporting quality, theoretical review of financial reporting quality, empirical review of financial reporting quality, and the conceptual framework and model of the study. According to Stam (2010) a theory is a 'systematic representation' of a valid problem expressed, as far as possible, mathematically, in the natural sciences or logically in the life and social sciences.

2.2 Theoretical Review

2.2.1. Agency theory

Adam Smith thought about the agent/principle relationship and their consequences in 18th Century. In 1970s many papers emerge to advance agency problem in corporate management such as (Jensen & Meckling, 1976; Mitnick, 1975; Ross, 1973). The agency theory explains the relationship between two people; the principle and his/her representative, the agent. The principle in this case delegates some decision making authority to the agent. The theory deals with some problems that may arise in this relationship especially if the agent decides not to pursue the same goal as the principle.

In corporate management the management of listed companies are separate from ownership making management agents of the shareholders who are the owners of capital in the company. Most decision making powers are delegated to the management. Financial information contained in the financial statements show the accountability of management for the resources entrusted to them by the owners. They rely on the financial statements to make economic decisions including whether to buy, sell and whether to hold their investment as well as whether to change the management.

In agency relationship information asymmetry problem may result since the managers are privy to information more than shareholders (Jensen & Meckling, 1976). Information disclosure is the best way of solving the agency problem. Should the managers disclose more relevant information, there will be reduction in agency costs (Barako et al., 2006) and the external stakeholders will be convinced that managers are acting in an optimal way (Watson et al., 2002).

However, full disclosure is not easy to achieve even if it's a requirement of regulations (Al-Razeen & Karbhari, 2004). In absence of full disclosure a conflict of interests arises between the managers and shareholders (Lev & Penman, 1990; Samuels, 1990). Therefore quality financial reporting will reduce information asymmetry between the management and other stakeholders and reduce the agency problem.

2.2.2. *Positive accounting*

Positive theory emerged in 1960s in an attempt to examine the assumptions that underlie normative accounting theory. In positive accounting theory, studies view a company as the total of the contracts they have. The theory states that, companies are more about the contracts that dictate its operations and what drives the company's success is efficiency. That means

minimizing the costs of its contracts to unlock the most value from them. Positive accounting theory therefore considers real life occurrences and predicts how actual companies address the accounting treatment of those transactions.

In other words, positive accounting theory is based on actual real world transactions and events, considers how companies are accounting for its transactions, explain the effects of economics decisions of the organizations. In principle, the theory aims at predicting how the expected future accounting treatments of various transactions by the organization

Two sets of empirical studies have emerged about this theory of accounting. One set of studies such as (Ball & Brown, 1968; Beaver, 1968; Foster, 1977; Beaver, Clarke, & Wright, 1979; Beaver, Lambert, & Morse, 1980; Grant, 1980; McNichols & Manegold, 1983) explain the association between accounting earnings numbers and stock prices. Results indicated that earnings numbers reflected factors relevant to stock valuation. Due to this Watts and Zimmerman disagreed with normative accounting literature that accounting earnings numbers were meaningless because they were computed using multiple valuation bases (Watts and Zimmerman 1986). The second set of studies such as (Kaplan & Roll, 1972; Sunder, 1973, 1975; Ricks, 1982; Biddle & Lindahl, 1982) attempted to understand the two competing hypotheses: the no-effects hypothesis and the mechanistic hypothesis but arrived at mixed results and therefore could not well explain their differences.

2.2.3. Normative theory

This normative accounting theory takes into account several different approaches to end up with one correct accounting opinion. It uses a formula to figure out income based on value, not cost. It is generally concerned with the basis of accounting measurement, particular accounting

procedures, and the contents of financial reports. The theory gives accounting policy makers what should be done based on a theoretical principle. Generally, normative approach is more of a deductive process than positive accounting theory. Normative starts with the theory and come up with to specific policies, while positive starts with specific policies, and generalize to the higher-level principles, (Ijiri 1975; W & Z 1986).

A number of scholars such as Hatfield (1927), Littleton (1953), Ijiri (1975), have done studies on this accounting theory and weather it is applicable in practice and they found its rationale in accounting practice. Ijiri (1975) is very explicitly supported the adoption of this theory in accounting practice.

However other scholars such as Paton (1922), Canning (1929), Sweeney (1936), MacNeal (1939), Chambers (1966), differed with normative approach and developed accounting models of global application (AAA 1977). Being reformers they suggested new bases of accounting measurement based on neoclassical economic theory and on their observations of economic behavior and suggested that accounting should report current costs instead of historical costs.

2.3 Empirical Review

2.3.1. The concept of quality of financial reporting

In the IASB's conceptual framework, financial information has two fundamental qualities of faithful representation (reliability) and relevance. The first fundamental quality, faithful representation, requires that the information presented reflects the actual economic events in the organization, should not be a result of any prejudice, management should be cautious in taking

judgmental decisions and that financial statements should be complete. Lack of faithful representation is a situation of earnings management (IASB; Kythreotis, 2014).

Secondly the quality of relevance means that the information given should be capable of influencing the decision of the users. It must have predictive value or confirmatory value (IASB; Kythreotis, 2014).

The purpose of financial reporting is to reduce the information gap between the providers of Capital and the management (Kieso, 2015) In the IASB's conceptual framework, financial reporting quality is determined by relevance of the information content and faithful representation of such information. It is further enhanced by timeliness of communication, understandability of the contents, materiality of the information and being free from error. This study focused on financial reporting quality in terms of faithful representation and relevance.

2.3.2. Accounting standards and financial reporting quality

In the post Enron and World Com scandals, the FASB and IASB agreed to advocate for a move towards principles-based financial reporting system. This would eliminate the bright-line rules and allow professionals to exercise judgment in preparation and analysis of financial statements (Clor-Proell & Nelson, 2007). A principles-based accounting system is anchored on a conceptual framework and guided by fundamental principles of accounting such as; substance over form, true and fair view, decision usefulness and going Concern. (US SEC, 2002; Schipper, 2003); but the question which is still not fully answered is whether this freedom of judgment can prevent the accounting scandals like the ones already witnessed.

Principles-based accounting standards provide flexibility to deal with new and different situations (Institute of Chartered Accountants of Scotland, ICAS, 2006). There can only be a

problem if this flexibility, becomes an opportunity for earnings management in accounting decisions. The institute therefore advocates for principle based standards. Psaros & Trotman, (2004) present evidence that supports principle-based standards. Their findings prove that in a rule based standards environment the preparers of financial statements use the accounting information aggressively. They make decision to consolidate in case of related companies to comply with given rules and not to comply if that helps to comply with that rule.

On the other hand, (Nobes, 2005) argues for rules-based accounting standards because they provide detailed provisions on the application of accounting standards to solve accounting problems and prevents ambiguity and can prevent earnings management. Alexander & Jermakowicz, (2006) also supports rules-based principles because they contain precise definition of what is allowed and what is not allowed in financial reporting. According to (Schipper, 2003) the rules based standards are good also in terms of increasing comparability in financial reporting give auditors easy time to verify financial statements.

2.3.3. *Accruals in financial reporting*

In order to effectively achieve their objectives to the users, financial statements information presented on time, accurately and appropriately. This is possible due to accrual basis of accounting which requires transactions to be recognized in relevant accounts based on their impacts and not cash basis (Yurt & Ergun, 2015). Accruals therefore involve reflecting the effects of financial transactions in financial statements before the cash flows associated to them occur. Accrual basis of accounting is why financial statements show assets and liabilities in financial statements other than cash (Richardson, Sloan, Soliman, & Tuna, 2005). They stated that without accruals cash balance is the only asset or liability of the firm.

The information relating to the other assets which are not cash are also relevant in decision making. Therefore accrual accounting is applied by many firms to show the balance of other assets and liabilities and changes in those assets and liabilities over time. They help to show the actual performance and position of the firm. Cash flows show some information which may easily be reversed in future. For instance the cash balance can be very good at the end of the period because some payments have been postponed to the following accounting period (Yurt & Ergun, 2015)

Accrual accounting technique helps to smooth the temporary difference between cash flow and profit because it recognizes transactions and economic events without a consideration of the actual cash flow (P. M. Dechow, 1994). She therefore cited that due to timing differences and problems of matching a transaction with its cash flow, cash accounting has low ability to measure performance than accrual accounting. The proponents of cash accounting say that cash flow is a fact while net profit is an opinion of the management and arbitrary figure subject to several hypotheses and accounting assumption. It is very difficult to manage cash flow of the firm, (Fernandez, 2015).

2.3.4. Non-Discretionary Accruals

The ASBJ had in the past tried to harmonize the JGAAPs with IFRS and have them recognized as equivalents of IFRS. However this was not acceptable to the IASB because the board was of the opinion that some accounting treatment significantly differed between the two sets standards. Non-discretionary accruals are a result of these standard differences.

There are some accounting treatment differences that may cause rise in accruals which are within application of standards and therefore not aggressive accounting by the management.

Specifically, the areas of significant difference between the standards include: accounting for research and development cost, amortization of intangible assets such as goodwill, revaluation of assets, and impairment of assets especially investment assets and recognition of revenue in case of sales transaction. (IASB and ASBJ)

In recognition of Research and Development expenses, both IAS 38, which is the current IFRS for accounting for intangible assets and ASBJ Accounting Standard No. 1 requires that all the cost related to research be treated as expense. The two standards however provide for different treatment of development cost. According to IAS 38, research and development costs should be capitalized after technical and commercial feasibility have been established while ASBJ Accounting Standard No. 1 do not provide for any capitalization of development costs. It requires that development costs all be treated as expenses and written off in the profit and loss account, (Ernst and Young 2011).

This different in treated of development cost has two effects in financial reporting: First when development costs are capitalized as required by IFRS the value of non-current intangible assets become higher than when the development expenses are treated as revenue expenses in the profit and loss account as per the requirement of ASBJ. Secondly, treatment of development costs as revenue expenses results into a lower net income under ASBJ Accounting Standard No. 1 than in IFRS. These differences are right within the standards and do not amount to aggressive accounting, but may affect the timeliness of losses recognition.

The standards also differ based on amortization of intangible assets. The ASBJ Accounting Standard No. 1 estimates that intangible assets have a useful life of 20 years and must be amortized within 20 years. Under IAS 38 there is a different treatment. The intangible

assets are assumed to have indefinite useful life and there is no depreciation of intangible assets. Instead the assets should be tested for impairment. This is an area of great conflict because while others agree that some intangible assets such as goodwill may be used throughout the life of the firm, testing for impairment is based on the judgment of the management and may be a source of discretionary accruals.

Under ASBJ intangible assets such as goodwill are assumed to have a useful life of twenty years and therefore amortized within twenty years, while under IFRS they are assumed to have an infinite useful life. They cannot therefore be amortized under IFRS but the firm should test for impairment annually. Amortization of intangible assets as required by ASBJ increases operating expenses, decreases net income and reduce the net book value of intangible assets in the balance sheet. Testing for impairment on the hand may result in high expense if the management provide for high impairment losses or low expense if no impairment losses are recognized during a given period.

Under ASBJ revenue recognition in case of sales of goods is based on realization principle. According to Corporate Principle 2, 3B, Note 6, there is no specific definition of realization principle and therefore no standard requirements for recognition. Practically delivery basis and shipment basis is used for revenue recognition, (Ernst and Young 2011). Under IFRS 15, revenue should be recognized when the entity satisfies a performance obligation and transferred substantial risk and control over the asset. Control of an asset is the ability to direct the use of and obtain substantially all of the remaining benefits from the asset.

Apart from the two methods of recognition being different and resulting in different revenue, the ASBJ practice of shipping or delivery recognition may be a risk of channel staffing,

one of the means of earnings management and aggressive accounting. Currently the ASBJ is working on a project for new revenue recognition principles, but the firms already using IFRS 15 to recognize revenue may have different information value based on revenue.

2.3.5. Discretionary Accruals

IASB, FASB and ASBJ frameworks agree that financial statement should be a true representation of the actual economic activities of the reporting entity. According IASB and FASB, this is known as faithful representation. However sometimes the financial reports fail to be a true reflection of the entity they represent, that is, they may show a good performance and financial position that actually existing or a poor one as actually exist. This is a situation of earnings management and caused by aggressive or fraudulent accounting and there is no faithful representation (P. M. Dechow, 1994; Schipper, 2003)

(ICAEW, 2014), reported that there are many proxies for faithful representation; accruals, earnings smoothing, timeliness of making provisions and timeliness of recognizing losses. According to a review by P. Dechow, Ge, & Schrand, (2010) there are so many proxies for faithful reporting used by researchers like accruals, persistence, smoothness, loss avoidance, timeliness, investor responsiveness, and SEC enforcement releases. They also concluded that there is no best indicator. The measures vary based on contingent decision context.

Accruals estimation is the popular method of measuring earnings management and quality of financial reports in terms of faithful representation. P. M. Dechow, (1994) justified the use of accruals saying that they can be determined from the information readily available in the financial statements. Even though using accruals leaves out non-financial information of the firm it has been widely accepted and used by scholars to measure faithfulness in financial disclosure.

Some empirical studies have been conducted in other countries on how IFRS adoption affects faithful representation. For instance (Gray, Kang, Lin, & Tang, 2015) found no difference in earnings quality between the countries that have adopted IFRS and those that have not adopted IFRS. In South Africa, there was no change in accruals after adoption of IFRS (Ames, 2013) and (Doukakis, 2014) also agreed with these findings by saying that there was no change in earnings management after adoption of IFRS

Earnings management reduced in the UK and Indonesia after adoption of IFRS, (Arum, 2013; Iatridis, 2010). There was also low earnings management, low discretionary accruals and therefore high earnings quality in European Union after adoption of IFRS (H. F. Chen et al., 2010). Earnings quality also improved among European banks after IFRS adoption (Gebhardt & Novotny-Farkas, 2011). This study used earning smoothing as a proxy for earnings quality. Houqe, van Zijl, Dunstan, & Karim, (2012) also found that IFRS adoption would improve earnings quality in an environment with strong investor protection.

On the other hand other studies like (Cai et al., 2008) found that there was increased earnings management after adoption of IFRS in EU zone. Callao & Jarne, (2010) also found that discretionary accruals increased after IFRS adoption especially in France, Spain and UK. Aubert & Grudnitski, (2011) on their part arrived at a conclusion that after adoption of IFRS in the EU quality of accruals increased than when local GAAPs were used. Ahmed et al., (2013) & Capkun et al., (2011) also found that aggressive accounting has increased and that earnings quality has reduced explained after adoption of IFRS.

2.3.6. Relevance

Relevance of financial information is how much the information is associated with market information, especially the stock price reactions to release of such information, known as predictive value of the information (Craig Nichols & Wahlen, 2004). The market behavior is measured based on the behavior of stock price. If there is a strong correlation between financial information and the stock price, it indicates that it has a strong effect on the market and therefore its relevance (Beest & Boelens, 2009)

International Accounting standards Board (IASB) paragraph 26, Financial Accounting Standards Board (FASB) Concept Statement No.2, paragraph 47 agrees that relevant information influences the economic decisions or capable of making a difference in the decisions of the users in terms of how they can be used to evaluate past, present or future events or confirming or correcting their past predictions. Francis, Schipper, & Vincent, (2003) also confirmed this saying that earnings quality is the predictive ability of earnings.

Predictive value is widely used by many researchers to measure value relevance. Beest & Boelens, (2009) analyzed predictive value into three items: first item being the forward looking nature of financial statements and depends on how well they help users to make forecasts and identify risks and opportunities, (Bartov & Mohanram, 2004), especially in case the financial statements are reinforced by non-financial information (Jonas & Blanchet, 2000). Finally is the use of fair values in financial reports.

After adoption of IFRS in the EU empirical researchers present mixed findings on its effects on relevance of financial information. Some studies found that there was no change in value relevance after adoption of IFRS (Aubert & Grudnitski, 2011; Platikanova & Nobes, 2006) while other studies found improvement of value relevance especially in countries adoption of

IFRS is compulsory and not voluntary. The information about research and development cost and information relating to the value of property, plant and equipment has more relevance under IFRS than before adoption of IFRS in the EU (Agostino, Drago, & Silipo, 2011; Devalle, Onali, & Magarini, 2010; Morais & Curto, 2009). On the other hand it was found that the information about good will was less relevant under IFRS than under US GAAP. However other intangible assets were more relevant under IFRS than under US GAAP there was decrease in the value relevance of good will information (Sahut & Boulerne, 2010).

2.4   Conceptual Framework

The study analyzed the changes in quality of financial reporting after adoption of IFRS in Japan. Quality of financial information has two aspects according to IASB's and FASB's conceptual framework: Faithful representation and Relevance. Faithful representation is represented by the level of earnings management in the financial statements and measured by changes in accruals as suggested by P. M. Dechow, (1994); P. M. Dechow & Dichev, (2002) and Jones (1991). On the hand other relevance is measured using predictive value based on the relationship between financial information and market price of stock (Craig Nichols & Wahlen, 2004). The analytical framework for the study is as below:

TABLE 1
Conceptual framework

Is there significant difference in faithful representation before and after adoption of IFRS?
Paired t-test

Faithful representation before adoption of IFRS		Voluntary adoption of IFRS	Faithful representation after adoption of IFRS	
How much earnings management?			How much earnings management?	
Accruals before adoption of IFRS			Accruals after adoption of IFRS	
Modified Jones Model			Modified Jones Model	
Discretionary?	**Non-discretionary?**		**Discretionary?**	**Non-discretionary?**

Relevance before adoption of IFRS

Predictive Value
of financial information, EPS, BVPS, TA & TL on stock price

Relevance after adoption of IFRS

Predictive Value
of financial information, EPS, BVPS, TA & TL on stock price

Is there significant difference in relevance before and after adoption of IFRS?

$$P_{it+6} = \beta_0 + \beta_1 Post + \beta_2 Bvps_{it} + \beta_3 Eps_{it} + \beta_4 TA_{it} + \beta_5 TL_{it} + \beta_6 Post*Bvps_{it} + \beta_7 Post*Eps_{it} + \beta_8 Post*TA_{it} + \beta_9 Post*TL_{it} + u_{it+6}$$

Focus on the significance of the coefficient of the dummy variable "Post"

Source: Author (2017)

2.4.1. Research Model

Researchers have adopted a number of models that have been accepted in the past to measure faithful representation in terms of discretionary and non-discretionary accruals. The most commonly used models to estimate quality of financial report in terms of accruals are Healy Model of 1985, De Angelo model of 1986, Jones model of 1991, The Industry Model, the Modified Jones by P. M. Dechow, (1994)

Healy Model measures non-discretionary as a mean of total accruals for a period of time. The De Angelo model assumes that non-discretionary accruals are the same as for the previous period. These two models are therefore only desirable for measuring accruals where non-discretionary accruals are expected to remain constant from one period to another. This can only be achieved under the same accounting standards and because there is likely to be a change in non-discretionary accruals due difference in accounting standards. Both Jones model and Industry assumes that non-discretionary accruals are constant and focuses on measuring discretionary accruals only. Therefore the best model for this study is Modified Jones model. The model analyzes changes in discretionary and non-discretionary accruals separately.

TABLE 2
Research model

BEFORE	AFTER	DIFFERENCE (paired t-test)
DA_B	DA_A	$DA_A - DA_B$
NDA_B	NDA_A	$NDA_A - NDA_B$
$PV\ (R^2)_B$	$PV\ (R^2)_A$	$PV\ (R^2)_A - PV\ (R^2)_B$

Source: Author (2017)

Where;

DA$_B$ - Discretionary Accruals before adoption of IFRS

DA$_A$ - Discretionary Accruals after adoption of IFRS

NDA$_B$ - Non-Discretionary Accruals before adoption of IFRS

NDA$_A$ - Non-Discretionary Accruals after adoption of IFRS

PV (R^2)$_B$ - Predictive Value before adoption of IFRS measured by R^2

PV (R^2)$_A$ - Predictive Value after adoption of IFRS measured by R^2

The analysis used t-test to test for the change in both discretionary and non-discretionary accruals in after adoption of IFRS. The discretionary and non-discretionary accruals were estimated using the Modified Jones Model as follows

$=$ …………………………………………...… (i)

$= \beta_0 + \beta_1 + \beta_2 + \beta_3 + \varepsilon$ ……………………………………… (ii)

$= \beta_0 + \beta_1 + \beta_2 + \beta_3 + \varepsilon$ ……………………………………... (iii)

TDA $= -$ …………………………………………………..………....… (iv)

Where:

ΔCA   =   Change in current Assets;

ΔCA   =   Change in current liabilities;

ΔCASH   =   Change in cash and cash equivalents;

ΔCA   =   Change in debt included in current liabilities;

ΔDEP   =   Depreciation and amortization expense;

TNA   =   Total net accruals

ATA	=	Average total assets
GPPE	=	Gross PP&E
TDA	=	Total discretionary accruals
ΔSales	=	Change in sales
ΔRec	=	Change in accounts receivable

The predictive value of was analyzed using earnings per share and book value of assets, liabilities and equity at time t and market price per share at time t+6 (six months after end of the year) and book value of equity on stock price using equation below developed by Kythreotis, (2014). The study analyzed relevance based on the explanatory of market information and balance sheet items separately. This study modified that approach by including a model which estimated the combine ability of market information and balance sheet information to explain the future stock price. The following three models were used to estimate the level of relevance before after adoption of IFRS:

$$P_{it+6} = \beta_0 + \beta_1 Post + \beta_2 Bvps_{it} + \beta_3 Eps_{it} + \beta_4 Post*Bvps_{it} + \beta_5 Post*Eps_{it} + u_{it+6} \ldots\ldots\ldots\ldots\ldots \text{ (v)}$$

$$P_{it+6} = \beta_0 + \beta_1 Post + \beta_2 TA_{it} + \beta_3 TL_{it} + \beta_4 Post*TA_{it} + \beta_5 Post*TL_{it} + u_{it+6} \ldots\ldots\ldots\ldots\ldots \text{ (vi)}$$

$$P_{it+6} = \beta_0 + \beta_1 Post + \beta_2 Bvps_{it} + \beta_3 Eps_{it} + \beta_4 TA_{it} + \beta_5 TL_{it} + \beta_6 Post*Bvps_{it} + \beta_7 Post*Eps_{it} + \beta_8 Post*TA_{it} + \beta_9 Post*TL_{it} + u_{it+6} \ldots\ldots\ldots\ldots\ldots \text{ (vii)}$$

P_{it+6}	=	Market share price at time t + 6 months,
$Bvps_{it}$	=	Book value of equity per share,
Eps_{it}	=	Income (before extraordinary items) per share,
TA_{it}	=	Total assets per share,

TL $_{it}$ =   Total liabilities per share,

Post   =   Dummy variable representing adoption of IFRS. It takes the value of 1 after adoption and value of 0 (zero) before adoption of IFRS,

U$_{it+6}$ =   Residuals

Then t-test was used to check whether there is a significant difference between R^2 of the model for the periods before and after adoption of IFRS. This explained the change in predictive value of the two models.

This model used to measure predictive value is directly linked to the specific differences noted between the two standards. For instance, there is difference in revenue recognition. This is likely to affect earnings reported by the firms, the assets and liabilities recognized by the firms in terms of accounts receivable and accounts payable and also retained earnings which are part of equity of the firm. Secondly, there is a difference in amortization of recognition and amortization of intangible assets such as goodwill. This may affect earnings and retained earnings in terms of expenses charged for the period and assets in terms of amortization. Finally there is a different in recognition of development cost. In IFRS development cost may be capitalized based on their probability while in JGAAP they are not capitalized. This may also affect earnings and retained earnings in terms of expenses charged and assets in terms of the amount capitalized as long term assets.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 Introduction

This chapter discusses the research design and data collection methods that were used by in the study especially in testing of hypotheses. The chapter outlines research design, study population or target population, sample size and sampling techniques, data collection instruments, data collection procedure and introduction to target population, sample size and sampling techniques, data collection techniques and procedures and introduction to data analysis.

3.2 Research Design

This study is an event analysis. In economics an event study helps the analyst to examine the behavior or characteristics of a sample of firms exposed to the same event, (Kothari & Warner, 2004). The event may be at a particular time or can be clustered over a period of time. A regulatory framework, such as change in accounting standards from JGAAP to IFRS is common event for the firms that adopt IFRS. The study therefore adopts event analysis methodology to analyze the quality of financial reporting in the pre and post IFRS adoption period using the firms listed in Tokyo Stock Exchange which have adopted IFRS. Quality in terms of faithful representation and predictive value was measured before and after IFRS adoption. The adoption of IFRS in Japan until now is voluntary and takes place at different times in various companies. The study therefore compared the statements of the same firms before and after adoption to control for the effects of difference in time. This is called the apple to apple approach, which means comparison at the same level. In this case comparing the same organizations results

before they adopted IFRS and after the same organizations adopted IFRS is used to solve the problem of different times of adoption.

3.3 Population

Until March 2016, a total of 3600 firms were listed in Tokyo stock exchange. Of this about 109 firms listed had adopted IFRS, 68 firms prepared annual reports based on IFRS. Out of these firms, 45 have prepared IFRS for at least 2 years.

3.4 Sampling Design

This study analyses financial statements of firms listed in Tokyo stock exchange that have adopted IFRS two years before and two years after they adopted IFRS. Therefore, even though many firms have adopted IFRS in Japan, only the 45 firms that have prepared financial statements for at least two years qualify to be used in this analysis. This makes the study to use purposive sampling design to select the firms to be used in the study. The sampling frame was as below.

TABLE 3
Sample

	No of Firms	Estimated Market Capitalization (Trillion JPY)	Estimated Market Capitalization (%)
Firms Listed in TSE as at 31/3/2016	**3600**	**584**	**100%**
Firms that have adopted IFRS by 31/3/2016	**109**	**108**	**20%**
Have prepared IFRS financial statements for 2 years	**45**		

Source: Japan Exchange Group (2015)

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3.5 Data Collection

The study was based on secondary data, the annual reports of the firms listed in Tokyo Stock Exchange. The annual reports of these firms two years before adoption and two years after adoption of IFRS are used for the analysis. This data is collected from Japanese Nikkei Stock database. The first company adopted IFRS in the year ended 31st December 2009. Therefore the financial statements to be used for this study are between 31st March 2007 and 31st 2006.

3.6 Data Analysis and Interpretation

The study used Modified Jones Model and adopted the procedure used by P. M. Dechow, (1994) to analyze the changes in accruals. Then a paired t-test was used to analyze the difference between discretionary and non-discretionary before and after adoption of International Financial Reporting Standards. The model analyses accruals into discretionary and non-discretionary accruals depending on their origin. Non-discretionary accruals are a result of non-cash assets resulting from non-cash transactions accepted by the accounting standards. Discretionary accruals are result of aggressive accounting practices adopted by the management beyond the accounting standards and therefore a proxy of earnings management in the firm. The procedure of P. M. Dechow, (1994) start by estimating total accruals using the following model:

= …………………...………………………………… (i)

where ΔCA is the change in current assets; ΔCL is the change in current liabilities; $\Delta CASH$ is the change in cash and cash equivalent balances; ΔSTD is change in debt included in current liabilities and ΔDEP is change in depreciation and amortization expense of the selected firms from the previous year to the current year.

The accrual calculated in equation (1) is used in a simple regression to using the equation (ii) below to determine the value of coefficients $\beta_0, \beta_1, \beta_2, \beta_3$.

$$= \beta_0 + \beta_1 + \beta_2 + \beta_3 + \varepsilon \ \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots \ \text{(ii)}$$

The total accruals are divided into non-discretionary and discretionary accruals. Then non-discretionary accruals are estimated first using the coefficients $\beta_0, \beta_1, \beta_2, \beta_3$ determined in equation (2), and financial information of the selected firms and equation (iii) below.

$$= \beta_0 + \beta_1 + \beta_2 + \beta_3 + \varepsilon \ \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots \ \text{(iii)}$$

Once the non-discretionary accruals have been estimated, they are subtracted from total accruals estimated in equation (i) above as in equation (iv) below.

$$= - \ \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots \ \text{(iv)}$$

A paired t-test was used to determine whether there is a significant difference between discretionary and non-discretionary accruals before and after adoption of IFRS in japan.

In the case of non-discretionary accruals, a significant difference in non-discretionary accruals mean that there is a difference between the two accounting standards, however how it affects the quality of financial reporting is based on discretionary accruals and predictive value. If there is no significant difference in non-discretionary accruals it means there is no difference between the two accounting standards in financial reporting and that can affect the decision to adopt IFRS by more people in Japan.

If according to the t-test there is a significant difference between discretionary accruals before and after adoption of IFRS, it means there is change in earnings management after adoption of IFRS which translates to change in quality of financial information. In case the increased discretionary accruals it means decreased quality of financial information while

decreased discretionary means increased quality of financial information. If there is no significant difference in discretionary accruals before and after adoption of IFRS, then there is no change in earnings management under the two accounting policies and therefore the quality of financial reporting remains unchanged.

Predictive value of financial information was estimated using three models:

$$P_{it+6} = \beta_0 + \beta_1 Post + \beta_2 Bvps_{it} + \beta_3 Eps_{it} + \beta_4 Post*Bvps_{it} + \beta_5 Post*Eps_{it} + u_{it+6} \dots\dots\dots\dots\dots \text{ (v)}$$

$$P_{it+6} = \beta_0 + \beta_1 Post + \beta_2 TA_{it} + \beta_3 TL_{it} + \beta_4 Post*TA_{it} + \beta_5 Post*TL_{it} + u_{it+6} \dots\dots\dots\dots\dots \text{ (vi)}$$

$$P_{it+6} = \beta_0 + \beta_1 Post + \beta_2 Bvps_{it} + \beta_3 Eps_{it} + \beta_4 TA_{it} + \beta_5 TL_{it} + \beta_6 Post*Bvps_{it} + \beta_7 Post*Eps_{it} + \beta_8 Post*TA_{it} + \beta_9 Post*TL_{it} + u_{it+6} \dots\dots\dots\dots\dots \text{ (vii)}$$

The first model estimate the relevance of financial information based on stock related information, that is, predictive value book value per share (BVPS) and earnings per share (EPS). The second model estimates relevance based on the predictive value of information related to balance sheet items, specifically total assets and total liabilities. The third model is a combination of the first two models. It estimates the predictive value of the all the financial information related to earnings per share, book value per share, total assets and liabilities.

The dummy variable "Post" in all the models represents the changes post adoption of IFRS. Its coefficient represents the changes in relevance (predictive value) after adoption of IFRS by the selected firms in Japan. Other dummy variables; Post*Bvps, Post*Eps, Post*TA, Post*TL, are used to show how the variables earnings per share, book value per share, total assets and liabilities, contribute to change in financial reporting quality after adoption of IFRS.

CHAPTER FOUR

DATA ANALYSIS, FINDINGS AND DISCUSSION

4.1 Introduction

This chapter discusses data analysis and presentation of the research findings. It gives a detailed explanation of the processes, techniques and procedures applied in analysis and presentation of data. The data analysis sought to determine the changes in financial reporting quality in Japan post adoption of IFRS through hypothesis testing using a paired t-test and a regression model. Stata 12 was used to fit the regression model and test hypothesis.

4.2 Descriptive Statistics

The table below is a summary of data that was used to calculate accruals. This data was collected from financial statements of the 45 selected firms. The data was collected from Nikkei Database for Japanese firms listed in Tokyo stock exchange. Table 2 shows the distribution of the firms by industry, table 3 is summary financial information two years before adoption of IFRS by the firm and table 4 is summary financial information two years after adoption of IFRS.

TABLE 4:
Frequency distribution of selected firms per industry

	Industry	Frequency
1	Electric Appliances	8
2	Pharmaceutical	8
3	Wholesale Trade	8
4	Information & Communication	3
5	Services	3
6	Chemicals	2
7	Glass & Ceramics Products	2
8	Machinery	2
9	Other Financing Business	2
10	Securities & Commodity Futures	2
11	Foods	1
12	Iron & Steel	1
13	Land Transportation	1
14	Real Estate	1
15	Transportation Equipment	1
	Total	**45**

Source: Author (2017)

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Table 4 below is the statistical summary of accruals, Discretionary and non-discretionary. This information has been obtained by using the Modified Jones and the financial information of the selected firms. It is a summary of accruals of the selected firms two years before and after adoption of IFRS.

TABLE 5
Description of Accruals before and after adoption IFRS

Variable	Obs	Mean	Std. Dev.	Min	Max
NDA BEFORE	45	-4.748358	25.86944	-168.8233	2.393774
TDA BEFORE	45	-0.000000867	1.878058	-2.746636	7.318993
NDA AFTER	45	20.73219	134.8032	-231.6092	872.6905
TDA AFTER	45	0.3876944	37.30805	-16.67383	231.5428

Source: Author (2017)

4.3 Study Variables

4.3.1. Accruals Analysis

The first part of the study involved analysis of accruals before and after adoption of IFRS in Japan. This was done by fitting data into Modified Jones Model below. The data was collected from financial statements of the selected firms.

$= \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots...1$

$= \beta_0 + \beta_1 + \beta_2 + \beta_3 + \varepsilon \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots....2$

$= \beta_0 + \beta_1 + \beta_2 + \beta_3 + \varepsilon.\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots3$

$TDA = - \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots.....4$

To determine Net Total Accruals (NTA) dependent in equation 1 above, the information about changes in current assets (CA), short term debt (STD), current liabilities (CL), cash and cash equivalent (CASH) and depreciation and amortization (DEP) was collected for all the

selected firms. The Net Total Accruals determined is used as dependent variable in equation 2 together with changes in sales, receivables and gross property plant and equipment (GPPE) as independent to determine the value of the coefficients β_0, β_1, β_2 and β_3 through regression equation. These coefficients are then used equation 3 together with changes in sales, receivables and gross property plant and equipment (GPPE) to determine non-discretionary accruals (NDA). Finally Total Discretionary Accruals (TDA) is calculated as the difference between Total Net Accruals and Non-discretionary Accruals.

4.3.2. Relevance analysis

The second part of the study analyses relevance of financial data before and after adoption of IFRS in Japan through the predictive value of earnings per share, book value per share, total assets and total liabilities and dummy variable "post" representing the changes after adoption of IFRS.

4.4 Model Fitting

4.4.1 Analysis of Non-Discretionary Accruals

The study sought to determine the change in non-discretionary accruals among the firms which have adopted IFRS voluntarily in Japan by testing the difference between JGAAP and IFRS based on changes in non-discretionary before and after adoption of IFRS by the firms listed in Tokyo Stock Exchange. Accruals arise from non-cash transactions and give rise to other assets and liabilities other than cash (Richardson et al., 2005), which are at times subject to management's estimation and judgment which is allowed by IFRS. Accruals, whether discretionary or non-discretionary have a negative relationship with cash flow and liquidity of the firm. This test was therefore to inform the users of financial statements about the changes to

expect on non-discretionary accruals while dealing with IFRS as compared to JGAAP which is related to cash flows of the firm.

A paired t-test was conducted on non-discretionary accruals estimated from financial statements of the selected 45 firms two years before and after these firms started using IFRS to prepare their financial statements. The paired t-test results are shown in table 2 below:

Table 6
Analysis of non-discretionary accruals

```
. ttest  NDAAFTER ==  NDABEFORE


Paired t test
─────────────────────────────────────────────────────────────────────────────
Variable │     Obs        Mean    Std. Err.   Std. Dev.   [95% Conf. Interval]
─────────┼───────────────────────────────────────────────────────────────────
NDAAFTER │      45    20.73219    20.09527    134.8032    -19.76717    61.23155
NDABEF~E │      45   -4.748358    3.856388    25.86944     -12.5204    3.023682
─────────┼───────────────────────────────────────────────────────────────────
    diff │      45    25.48055    23.74928     159.315    -22.38299    73.34408
─────────────────────────────────────────────────────────────────────────────
    mean(diff) = mean(NDAAFTER - NDABEFORE)                       t =    1.0729
 Ho: mean(diff) = 0                             degrees of freedom =        44

 Ha: mean(diff) < 0           Ha: mean(diff) != 0             Ha: mean(diff) > 0
 Pr(T < t) = 0.8554         Pr(|T| > |t|) = 0.2892            Pr(T > t) = 0.1446
```

Source: Author (2017)

According to this test there is increase in mean non-discretionary accruals of 25.48055 Million Japanese Yen with a Standard Deviation of 159.315 Million Yen and Standard Error of

23.74928 Million Yen at 95% confidence interval. The statistical significance (2-tailed *p-value)* of the paired t-test (Pr(|T|>|t|) is 0.2892. This *p-value* is greater than 0.05 meaning the difference in non-discretionary accruals in the firms before and after adoption of IFRS is not statistically significant different. The study therefore failed to reject the null hypothesis that:

> *There is no significant change in non-discretionary accruals after introduction of IFRS in*
>
> *Japan*

4.4.2   Analysis of Discretionary Accruals

Discretionary accruals are an indication of intentional manipulation or smoothing of financial results by the management of the firms' management (P. M. Dechow, 1994; Schipper, 2003). In this section also a paired t-test was conducted on discretionary accruals estimated from financial statements of the selected 45 firms two years before and after these firms started using IFRS to prepare their financial statements. The paired t-test results are shown in table 2 below:

TABLE 7
Analysis of discretionary accruals

```
. ttest  TDAAFTER ==  TDABEFORE


Paired t test
```

Variable	Obs	Mean	Std. Err.	Std. Dev.	[95% Conf. Interval]	
TDAAFTER	45	.3876944	5.561556	37.30805	-10.82089	11.59627
TDABEF~E	45	-8.67e-07	.2799643	1.878058	-.5642318	.5642301
diff	45	.3876953	5.587819	37.48423	-10.87381	11.6492

```
     mean(diff) = mean(TDAAFTER - TDABEFORE)                       t =    0.0694
  Ho: mean(diff) = 0                              degrees of freedom =        44


 Ha: mean(diff) < 0           Ha: mean(diff) != 0           Ha: mean(diff) > 0
 Pr(T < t) = 0.5275         Pr(|T| > |t|) = 0.9450           Pr(T > t) = 0.4725
```

Source: Author (2017)

This test shows that there is increase in mean discretionary accruals of 0.3876953 million Japanese Yen with a Standard Deviation of 37.48423 million Yen and Standard Error of 5.587819 million Yen at 95% confidence interval. The statistical significance (2-tailed *p-value)* of the paired t-test (Pr(|T|>|t|) is 0.9450. This *p-value* is greater than 0.05 meaning the mean difference in discretionary accruals in the firms before and after adoption of IFRS is not statistically significant different. This shows that there is no significant change in earnings management and faithful representation in Japan post IFRS adoption. The study therefore failed to reject the null hypothesis that:

There is no significant change in discretionary accruals after introduction of IFRS in Japan

These results are similar to the findings of (Ames, 2013; Doukakis, 2014) and disagree with the findings of (Ahmed et al., 2013; Aubert & Grudnitski, 2011; Cai et al., 2008; Callao & Jarne, 2010; Capkun, Cazavan-jeny, Jeanjean, Weiss, et al., 2011) which found increased discretionary accruals after adoption of IFRS in other countries, and the findings of (Arum, 2013; H. F. Chen et al., 2010; Gebhardt & Novotny-Farkas, 2011; Houqe et al., 2012; Iatridis, 2010) which stated that there is decrease in discretionary accruals after adoption of IFRS in some countries.

4.4.3 Analysis of Relevance

TABLE 8
Relevance

	MODEL 1		MODEL 2		MODEL 3	
	Coefficient	Std. Err	Coefficient	Std. Err	Coefficient	Std. Err
Post	362.8	(1.07)	-1178.9**	(-2.92)	-123.1**	(-2.65)
EPS			0.305	(1.01)	0.191	(0.52)
BVPS			-0.0300	(-1.20)	-0.0197	(-0.63)
Total Assets	0.000125	(0.96)			0.000137	(1.16)
Total Liabilities	-0.000250	(-1.18)			-0.000253	(-1.34)
Post*Eps			2.657	(1.42)	2.420	(1.17)
Post*Bvps			0.779***	(3.61)	0.775***	(3.52)
Post*Total Assets	-0.0000108	(-0.07)			-0.0000984	(-0.68)
Post*Total Liabilities	0.0000440	(0.18)			0.000162	(0.71)
Constant	1859.7***	(7.77)	1821.8***	(8.87)	1863.0***	(8.49)
N	90		90		90	

Source: Author (2017)

Predictive value of financial information is its ability to explain the stock price or its correlation with changes in stock price. The study measured predictive value using two models: the first model measuring predictive value in terms of how stock related financial information, that is, earnings per share and book value per share.

The Table above shows the relationship between stock price and stock market related information i.e. EPS and BVPS, Assets and liabilities. The results of the first model show that stock related financial information have more predictive value after adoption of IFRS than before adoption of IFRS. This is because the coefficient of the dummy variable "Post" which is significant at 99% confidence interval. This significance is contributed to more by Book value per as indicated by the coefficient of the dummy variable "Post*BVPS" which is an interaction of the dummy variable "Post" and Book Value per share. The information is therefore more relevant after adoption of IFRS than before these firms adopted IFRS.

The second model estimated relevance of financial information based on balance sheet items, that is, Total assets and liabilities of the selected firms. The results are presented in table 5 below. In these results show that financial information related to these balance sheet items do not have a significant difference before and after adoption of IFRS by the selected firms. The dummy variable "Post" representing difference in relevance after adoption of IFRS is not significant. Also the table shows that this variable is not significant at 95% confidence interval. It therefore means that the relevance of assets and liabilities remains the same before and after adoption of IFRS by the selected firms.

The third model is a combination of model 1 and model 2. In the combined regression financial information is more relevant after adoption of IFRS than before adoption of IFRS. The

coefficient of the dummy variable post is significant at 95% confidence interval. Based on these results the study rejects the null hypothesis that:

There is no significant change in predictive value of financial information after introduction of IFRS in Japan.

These findings are contrary to the prior findings of some scholars like (Aubert & Grudnitski, 2011; Platikanova & Nobes, 2006)

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter consists of the summary of findings, results of hypothesis tests, the conclusions drawn from these findings, recommendations, limitations of the study and the areas suggested for further research.

5.2 Summary

This study sought to determine changes in financial reporting quality in Japan after introduction of IFRS in Japan. It adopted the IASB conceptual framework to measure quality in terms of faithful representation and relevance. Discretionary accruals were used to measure changes in faithful representation using Modified Jones Model while predictive value of I formation was used to measure relevance. In addition non-discretionary accruals were used to measure any inherent differences between IFRS and JGAAP.

Data was collected from 45 firms listed in Tokyo stock Exchange which have used IFRS for at least 2 years to prepare financial statements distributed among 15 different industries. The data was derived from Nikkei stock database for firms listed in Tokyo stock Exchange. The study was based on secondary data and set to test hypotheses that: there is no significant change in predictive value of financial information after introduction of IFRS in Japan; there is no significant change in discretionary accruals after adoption of IFRS in Japan and there is no significant change in non-discretionary accruals after adoption of IFRS. Paired t-test was used to analyze the accruals before and after adoption of IFRS. Relevance was analyzed using regression equations with dummy variables to show changes after adoption of IFRS.

This p-value of a paired t-test for non-discretionary accruals was greater than 0.05 meaning the change in non-discretionary accruals among the firms before and after adoption of IFRS is not statistically significant. Also the p-value of a paired t-test for discretionary accruals is greater than 0.05 meaning the mean change in discretionary accruals among the firms before and after adoption of IFRS is not statistically significant different. Finally financial information is more relevant after adoption of IFRS as compared to before adoption of IFRS. The coefficient of the dummy variable post which represents change after adoption of IFRS is significant at 95% confidence interval.

5.3 Conclusions

5.3.1. Non-Discretionary Accruals

Since the changes in non-discretionary accruals are not significant; the study therefore concluded that there is no significant difference in financial reporting in Japan post introduction of IFRS. Non-discretionary accruals measure inherent `differences between the two standards. It does not capture the behavioral aspects of financial reporting. Therefore, even though there are some differences in treatment, these differences do not cause a significant difference in the resulting accounting results.

5.3.2. Discretionary Accruals

There was also no significant change in discretionary among the firms in Japan post of IFRS introduction. Discretional accruals reflect the behavioral aspects of financial reporting. They reflect whether or not management behaviors and decisions are objective and within the accounting standards and whether they faithfully report the financial situation in the firm. According to the findings of this study, there are no significant changes in on the management

behavior and objectivity in financial reporting in Japan after adoption of IFRS, even though these standards allow management discretion and judgment.

5.3.3. Relevance

The study also found that the predictive value of financial information used in the study that is, earnings per share, book value per share, assets and liabilities, improved after adoption of IFRS by the selected firms. The study therefore concluded that financial statements prepared under IFRS are more relevant than the financial statements prepared under the J-GAAP.

5.4 Recommendations

Many firms in Japan have adopted a wait and see approach about adoption of IFRS. They have been given an option of adopting IFRS at will but shareholders and management of some of these firms are skeptical about IFRS arguing that it gives management undue freedom that they may use to prejudice the interest of other stakeholders. This study has found that adoption of IFRS does not affect human behavior in financial reporting. It also found that financial information of IFRS is more relevant under IFRS than under JGAAP. This means that the statements can help the shareholders and other stock market players to make good decisions under IFRS than under JGAAP.

The study therefore recommends that the Financial Services Agency allow full compulsory adoption of IFRS in Japan to improve the value of financial information to stock market players. In case full adoption is not allowed, the study recommends that firms many firms that have not adopted IFRS adopt voluntarily in order to improve relevance of their financial information.

To ensure that management behavior in financial reporting does not change adversely after adoption of IFRS, and ensure that adoption of IFRS results to more benefits to the capital

providers and other users of financial information in Japan, the Financial Services Agency, JICPA and other agencies in Japan should ensure the regulatory environment and investor protection is strong enough. This will ensure the management does not take advantage of the discretion and freedom of judgment that comes with IFRS adoption.

5.5 Recommendations for Future Research

This focused on the changes in financial reporting quality post introduction of IFRS in Japan. The findings of this study will be important on the way forward about full adoption of IFRS by all firms listed in Tokyo stock exchange. A similar study can be conducted if compulsory adoption of IFRS takes. In addition a study can be conducted to determine the factors that have ensured that the adoption is popular in some industries like Electric Appliances, Pharmaceutical, Wholesale Trade and Services than other industries.

5.6 Limitations of the study

Even though the over 100 firms listed in Tokyo Stock Exchange have adopted IFRS, not many firms have prepared financial statements based on IFRS for 2 years. Therefore the study sampled only 45 firms. Some firms that adopted IFRS recently were therefore not represented.

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APPENDIX 1: TIME SCHEDULE

TABLE 9
Time Schedule

Time	Activity
Oct 2015 – April 2016	Reading papers Developing the topic of the study
May 2016 – Aug 2016	Literature review hypothesis development and data collection
Sept 2016	Proposal presentation
Sept 2016 – Dec 2016	Data analysis and final presentation
Jan 2017 – March 2017	Corrections and submission of the final documents to Tohoku University.

APPENDIX 2: LIST OF SAMPLED FIRMS

	COMPANY NAME
1	Anritsu Corporation
2	Asahi Glass Co., Ltd.
3	Astellas Pharma, Inc.
4	Chugai Pharmaceutical Co., Ltd.
5	DAIICHI SANKYO COMPANY, LIMITED
6	DeNA Co., Ltd.
7	DENSO CORPORATION
8	DENTSU, INC.
9	Eisai Co., Ltd.
10	FUJITSU LIMITED
11	Hitachi Capital Corporation
12	Hitachi Chemical Company, Ltd.
13	Hitachi Construction Machinery Co., Ltd.
14	Hitachi High-Technologies Corporation
15	Hitachi Koki Co., Ltd.
16	Hitachi Kokusai Electric Inc.
17	Hitachi Metals, Ltd.
18	Hitachi Transport System, Ltd.
19	Hitachi, Ltd.
20	ITOCHU Corporation

21	ITOCHU ENEX CO., LTD.
22	ITOCHU Techno-Solutions Corporation
23	Japan Exchange Group, Inc.
24	Japan Tobacco, Inc.
25	KONAMI CORPORATION
26	KONICA MINOLTA, INC.
27	Marubeni Corporation
28	Mitsubishi Corporation
29	MITSUI & CO., LTD.
30	Monex Group, Inc.
31	Nihon Dempa Kogyo Co., Ltd.
32	Nippon Sheet Glass Co., Ltd.
33	Nitto Denko Corporation
34	ONO PHARMACEUTICAL CO., LTD.
35	Rakuten, Inc.
36	Ricoh Company, Ltd.
37	Santen Pharmaceutical Co., Ltd.
38	SBI Holdings, Inc.
39	SEIKO EPSON CORPORATION
40	SoftBank Corp.
41	Sojitz Corporation
42	Sosei Group Corporation
43	Sumitomo Corporation
44	Takeda Pharmaceutical Company Limited

45	Tosei Corporation

APPENDIX 3: DATA COLLECTION SCHEDULE

TABLE 9

Data collection schedule

Stock Code	Date of adoption	CA - Total	ΔCA	CL - Total	ΔCL	Cash and Short-Term Invest	ΔCash	Debt in CL STD - Total	ΔSTD	Dep. and Amort.	ATA	Sales (Net)	ΔSales	Rec - Total	ΔRec	Property, Plant and Equipment - Total (Gross)	TA