

# The Adoption of IFRS 15, Complexity of Business Transactions, and Earnings Quality: Insights from Thailand

Dussadee Soodsook  
Faculty of Business Administration, Khon Kaen University,  
Thailand

Pinprapa Sangchan  
Faculty of Business Administration, Khon Kaen University, Thailand

Parichat Sinlapates  
Faculty of Business Administration, Khon Kaen University, Thailand

Supawat Meeprom\*  
Faculty of Business Administration, Khon Kaen University, Thailand

— *Review of* —  
**Integrative  
Business &  
Economics**  
— *Research* —

## ABSTRACT

Motivated by the call for the academic paper regarding the post-implementation of IFRS 15 review, and the arguable assumption of managerial judgment exercises, this study aims to investigate the effects of the implementation of IFRS15 Revenue from Contract with customers on earnings quality. Using quarterly data from Thai listed companies spanning over 2019 – 2020, the results show that the adoption of IFRS 15 enhances the quality of earnings from (1) the predictive value, (2) the smoothness, and (3) the value relevance perspectives. Specifically, (1) we find that operating income has better predictive and confirmatory value in the post - adoption of IFRS 15 periods, (2) the compliance of IFRS 15 leads to the reduction of the standard deviation value of operating income and cash flows, and (3) IFRS 15 application reduces the excessive returns improving information quality. Results are more pronounced in firms that are listed in the Information Technology, and Real Estate and Construction sectors where contracts with customers appear complex due to bundle transactions. Our findings add more empirical insights about the economic consequences of IFRS 15 application from emerging contexts where earnings quality is of public concern. This paper highlights that although IFRS 15 could cause the challenge through the need of high level of management’s judgments for revenue recognition, such challenge does not always lead to the negative consequence. That is, our findings offer the premises that managerial judgments and estimates could make financial information more economic substance rather than more prescriptive.

**Keywords:** Post-implementation of IFRS 15, IFRS 15 Adoption, Earnings Quality, Revenue Recognition.

Received 19 November 2022 | Revised 19 May 2023 | Accepted 21 July 2023.

## 1. INTRODUCTION

Significant inconsistency in revenue recognition has brought about the weakness in the quality of financial information. This issue is outstanding because revenue is an essential accounting item for financial users, particularly equity investors, to evaluate firms' financial performance. In order to resolve the diversity of revenue recognition, the International Accounting Standards Board (hereafter, IASB) issued the long-promised IFRS 15 Revenue from contracts with customers in May, 2014. The core principle of IFRS 15 is to require entities to recognize revenues faithfully, yet the accomplishment of the IASB's objective is arguable when contracts with customers involve complex circumstances resulting in high level of managerial judgements and estimates.

Motivated by the call for a research paper relating to the IASB's post-implementation review of IFRS 15, this paper examines the effect of IFRS 15 adoption on earnings quality conditional on the industrial category. It is noted that accounting information is dependent on the manager's choice on accounting practices that either maximize the firm's value or opportunistically serve their own best benefit (Christie & Zimmerman, 1994; Holthausen 1990). Because the 5 steps of the revenue recognition under IFRS 15 allows firm managers to exercise judgements and estimates, accounting earnings quality which is a consequence of its application would be explained by the arguable contracting - based theory. This study further investigates whether particular industries, where complex contracts with customers could exist, lead to a more pronounced effect of IFRS 15 adoption on earnings quality.

Prior studies regarding the adoption of IFRS 15 report various dimensions, yet venues for further investigations are still open. Using a cross-country sample of EU listed groups, Boujelben and Kobbi-Fakhfakh (2020) shows that the samples do not completely comply with the IFRS 15 and the level of compliance differs among groups. However, this study did not provide the economic consequences of the compliance. Using data from Italian public firms, Tutino, Regoliosi, Mattei, Paoloni and Pompili (2019) reports that the compliance of IFRS 15 affects the earnings management and the effect is more pronounced differently according to the complexity of industries that firms belong to. This study, therefore extends the research strand by analyzing data from Thai Stock Market where family run business oriented and earnings management is arguable. We further investigate whether the complexity of business transactions moderates the effects of the adoption of IFRS 15 on earnings quality.

To follow the spirit of high-quality financial information specified by the Conceptual Framework for Financial Reporting, we choose to measure earnings quality in four perspectives; predictability, smoothness, accrual measure and value relevance. According to the Conceptual Framework, financial information quality is enhanced if it is relevant and faithful. Financial information is relevant if it has predictive value and confirmatory value, while faithful representation of financial information is met when information is comparable and verifiable (IFRS foundation, 2018). Hence, our four sets of earnings quality measures reflect fundamental characteristics of financial information assessment serving our aim to give insight into the evidence whether the post - IFRS 15 application the quality of earnings numbers are enhanced.

Due to the Application of IFRSs in emerging countries has been controversial and of interest among researchers (Brahmono & Purwaningsih, 2022; Peng & Bewley, 2010), we use Thailand which represents a less developed country and is under researched as an empirical setting. It is widely documented that Thailand's economy is driven by family business (PwC, 2019). The family firms tend to focus on succession and net worth preparing for their next generation, yet the strong political connection may affect

governance mechanisms and quality of accounting information accordingly (Songini, Gnana, & Malmi, 2013). That is, family firms that own insights could either involve opportunistically earning management or efficiently choose to improve quality of earnings reducing transaction costs (Batta, Sucre Heredia, & Weidenmier, 2014). Given the quality of financial information regarding the new IFRSs' adoption in family firms is of concern, the empirical evidence on this issue in the family run- business oriented contexts, will be important to regulators and practitioners in terms of policy making and effectiveness of the new IFRSs implementation.

Employing the OLS method and Wald Test analyzing quarterly data from Thai listed companies over the period 2019 – 2020, findings generally show that earnings quality is improved in the post - IFRS 15 adoption period. <sup>1</sup> *First*, we find that firms' operating income in the previous year has a significantly positive relationship with operating incomes in the current year after adoption of IFRS 15. This suggests that operating income has better predictive and confirmatory value after IFRS 15 adoption. The finding is more pronounced in firms categorized in Information Technology and Real Estate industries as the two industries are presumed to have more complex contracts with customers. *Second*, results also indicate the decrease in the standard deviation value of operating income and cash flows from operation suggesting the improvement of the earning smoothness. *Third*, results demonstrate the significant negative relationship between operating income and excess returns after IFRS 15 application implying the information quality is enhanced. We, however, did not find convincing evidence of the improvement earnings quality in terms of the accrual measures.

This research paper has multiple contributions to the academic community and professional bodies. *First*, we enrich the work of Tutino et. al. (2019) by documenting the improvement of earnings quality after adoption of IFRS 15 and such improvement is more pronounced in the complex business environments. *Second*, we provide empirical insights about the effect of new accounting standards implementation on financial information quality from the emerging economic perspectives where the costs and benefits of IFRSs adoption is widely discussed and under researched (Lee & Azis, 2023). *Third*, our findings can be informative about the post-IFRS 15 implementation review regarding the achievement of the IASB in enhancing the usefulness of financial information to regulators and auditors. Findings also implicitly inform the regulators, and financial statements' users that managerial judgment could bring about accounting practices that are consistent with industry norms and reflect the economic substance of the transitions.

The paper proceeds as follows: relevant literature and hypothesis development is presented in the next section. Section 3 presents the research design covering sample selection and variable measurements. Section 4 demonstrates descriptive statistics, results and discussion. Section 5 presents a summary conclusion.

## **2. RELEVANT LITERATURE AND HYPOTHESIS DEVELOPMENT**

### **2.1 IFRS 15 timeline and its implementation in Thailand**

---

<sup>1</sup> We start collecting data from 2019 as a pre-adoption period because TFRS 15 which is equivalent IFRS 15, is mandatory effective on January 1, 2020.

The IASB and Financial Accounting Standards Board (hereafter, FASB) have attempted to achieve fully compatible standards on clearly and globally applied financial reporting principles since 2002. The revenue recognition is one of the most complex and long-standing dated topics of this accounting convergence project (Usurelu, Dutescu, & Jarvis, 2021). Under the difficulties, IASB issued IFRS 15 Revenue from contracts with customers in May 2014, however the very first mandatory application was made in 2017 (ICAEW, 2021). Although the Boards' goals in the joint project is to reduce inconsistencies and increase more useful financial information, the implementation tends to rely on entities' capacity to adequately apply the five-steps model with their business-models controversies.

IFRS 15's core principle is that firms recognize revenues when only goods and/or services are transferred to customers at an amount that reflects the expected benefits in exchange for goods/services. Under IFRS 15, to apply the core principles, entities are required to follow the five-steps: (1) Contract Identification (s) with customer, (2) the performance obligations identification – in many cases, there could be various performance obligations in a contract, (3) Determine the transactions price, (4) Allocate the transaction price to the performance obligations in the contract - pricing justification is required for a contract with several obligations, and (5) Revenue recognition when performance obligations are conveyed as stated in a contract.

The five-step mentioned above applies to all business models as IFRS 15 replaces all the legacy accounting standards for revenue recognitions (e.g. International Accounting Standards (IAS) 11 Construction Contracts, IAS 18 Revenue, and International Financial Reporting Interpretations Committee (IFRIC) 15 Agreements for the Construction of Real Estate etc.). That is, in following the five-step model considering contracting terms and relevant facts in diversified business contexts, managerial judgements and estimates are needed. In doing so, the implementation considerations include the IT system, Tax implication and changes in sales schemes (KPMG, 2018). These challenges possibly lead to its delayed implementation and its questionable consequence in emerging business contexts.

Regarding the IFRS 15 transition, TFRS 15 which is equivalent to IFRS 15 has come into effect in Thailand on January 1, 2019. Entities in Thailand have been pushed forward to apply TFRSs/ IFRSs by professional bodies such the Federation of Accounting Professionals and Securities (FAP) and Exchange Commission's (SEC) as those professional bodies believe that fully IFRS adoption would gain trust from crossed-country investors (PwC Thailand, 2018). Critics, however, argue that the core principle-based IFRS – like the five-step model would induce firms' managers to exercise judgements and estimates resulting in higher accounting discretion (Habib, Bhuiyan, & Hassan, 2019). This argument seems to be valid when such principle-based IFRS has been adopted in the context of emerging countries with high levels of agency problem concern.

It has been widely documented that Thailand's economy relies heavily on family owned business (family business account for more than 80%) (PwC, 2019) which possibly affect the corporate governance issues and financial information quality accordingly (Cascino, Pugliese, Mussolino, & Sansone, 2010; Songini et al., 2013). Since managerial family members may benefit from information that is unknown to non-managerial family members, the decision or accounting policy that may accelerate accounting discretion would be taken. On the positive side, family ownership will efficiently make decisions and plan for the next generation' prosperity resulting in good discipline in monitoring (Fama &

Jensen, 1983; PwC, 2019). Hence, whether the revenue recognition under IFRS 15 in Thailand will enhance information quality seems to be of interest and controversial.

## 2.2 Earnings Quality and its Measures

This section covers how the IFRS 15 relates to earnings quality and what to be measured as claims of earnings quality. As aforementioned, the revised revenue recognition is based on a uniform model for all types of business models resulting in the more comparable and relevant financial information. The new criteria of revenue recognition under IFRS15 is much more specific than previously included in a set of legacy revenue recognition. For instances, unlike unclear guidance of IAS 11, amended IFRS 15 specifies that revenue should be recognized overtime or at a point in time will typically depend on careful assessment of specific contract terms – IFRS 15.29 clearly indicate how to assess whether there are goods and services within a contracts (BDO, 2020; Deloitte, 2014). Thus, the timing of revenue and profit recognition including the capitalization contract costs under IFRS 15 may affect a significant change in the measurement of revenue and profit leading to earnings quality.

Understanding the quality of earnings is an important part of the post - IFRS 15 application review. Earnings quality can have different meanings depending on financial statement users. Earnings reported by firms without fraudulent news would be considered by financial press as earnings quality (Dechow & Schrand, 2004), while financial analysts may define earnings quality as numbers that accurately reflect firms' current performance and are indicative of firms' future financial performance and thus useful form firms' intrinsic value assessment (Beaver 1998; Ohlson & Zhang 1998). Based on these two perspectives, it is rational to summarize that earnings are regarded as high-quality earning numbers when there is no earning management and are predictive and confirmatory.

Ensuring earnings numbers serve a general purpose of various groups of financial users, the Conceptual Framework for Financial Reporting specifies that financial information will be regarded as high quality information if it is relevant and faithful. The value relevance will be met if information has predictive and confirmatory value, while the faithful presentation refers to comparable and verifiable characteristics (IFRS foundation, 2018). Underpinned with this Framework, prior research measures the quality of earnings using various models to draw conclusion whether accounting standards' implementation improves financial information quality as IASB expected.

Using US data, Perotti and Wagenhofer (2014) explored how common indirect indicators of earnings quality fulfill the Conceptual Framework's specifications. Perotti and Wagenhofer (2014) categorizes earnings quality measures into four groups: time-series measures, smoothness measures, accruals measures, and value relevance measures. *First*, time-series measures attempt to capture the persistence and predictability. The smaller volatile earnings will lead to the higher persistent earnings increasing the usefulness of earnings for performance projection. *Second*, the volatile earnings or accruals relative to volatile cash flows from operating activities. *Third*, the models focus on separating "legitimate (non-discretionary) accruals versus managed (discretionary) components" following Jones (1991). *Last*, the value relevance is commonly drawn from the earnings response coefficient (e.g. the regression coefficient of the abnormal and/or market returns on earnings etc.) (e.g., Brown, Lo, & Lys 1999; Chang, 1999). Consistent with earnings quality literature, given study indicates that the accrual measures can be used as overall measure of earnings quality.

Although practitioners and researchers indicate that accruals measures are indicative of earnings quality, the application of IFRS 15 could introduce good accruals as accrual adjustments according to the five-step model that fairly represent contract terms. There are two views about earnings numbers (Dechow & Schrand, 2004). The first view is so called 'a balance sheet base' presuming that value adjustments of assets and liability affect the bottom-line of earnings leading to poor earnings quality for predicting a firm's performance. Conversely, earnings numbers can be relatively more useful for performance forecasting when accruals are mainly made to fairly represent commercial substances. Recently, IFRSs have been moving towards a fair value model which requires intense accounting estimates (Cairns, 2007). Hence, the solely use of accruals measurement as overall earnings quality – earnings relative to operating cash flows, may not be so indicative due to the contexts changed.

Aiming to provide insight into the quality of accounting information when applying revised IFRS, this research emphasizes earnings quality following the characteristics of high quality information required by the Conceptual Framework. Therefore, earnings are judged to be quality when they are (1) more persistent – less volatile, (2) significantly associated with future operating cash flows, and (3) value relevant – significantly associated with stock returns. The more persistent and less volatile earnings will lead to high earnings quality in terms of predictive value. Likewise, the relationship between earnings and future operating cash flows reflect the predictive and confirmatory value. The value relevance of earnings is observed through the association of earnings with returns.

### **3. HYPOTHESIS ON IFRS 15 APPLICATION AND EARNINGS QUALITY**

Similar to the early IFRS adoption periods, the IFRS 15 transition has been widely controversial. IASB gives the best effort in encouraging every country around the world to fully adopt IFRS 15, as IASB believes that its application will consequently enhance the revenue quality. However, opponents argue that new amended IFRS 15 poses difficulties in implementation and

In business context, accounting information is generally used to create contract terms (e.g. accounting numbers are used in corporate taxation calculation and also used in determining borrowing contracts) (Napier & Stadler, 2020). Based on a literature review on research focusing the revenue recognition under the IFRS 15 and agency theory, Trabelsi (2018) examined and found that the IFRS 15 early adoption affects the quality of accounting information. Likewise, Tutino et al. demonstrate that the compliance of IFRS 15 reduces earnings management and such impact is more pronounced when business transactions are more complex. Given the agency theory perspective and empirical evidence as well as relevant literature, our hypothesis are as follows.

#### **H1. The compliance of IFRS 15 improves earnings quality**

Although the literature on the new accounting standard adoption mainly points out the positive circumstances and consequences, the effect of the adoption of the new IFRS could have a different level among different business nature of samples. For instance, Big-Four Firms report different levels of impacts on the IFRS 15 compliance on Financial Statement Quality regarding sectors (Tuino et al. 2019). Due to that Big-Four Report, we imply that the Telecommunication and Utilities industries where the contract with customers could have various obligations and hence could be subject to manipulation without the new five-

steps model of IFRS 15 requirement. Thus, we predict that the effect of the compliance of IFRS 15 on the earnings quality will be more pronounced when firms are categorized within Telecommunication and Real Estate industries. Our hypothesis is stated as the following.

H2. The effect of IFRS 15 compliance on earnings quality is more pronounced when firms are within Telecommunication, and Real Estate and Construction industries.

#### 4. RESEARCH METHODOLOGY

##### 4.1 Sample Selection and Data Collection

We initially collect all data from all Thai listed companies which comprises 613 companies as of November 2018. Data are extracted quarterly spanning over 2019- 2020. We then dropped banking, trust, and insurance sectors as they have specific regulations and requirements for a set of financial reporting. We also excluded missing values of required variables. We finally have 489 firms as our final samples.

To construct our research, we collect data from main sources. First, we collect stock market based information via Thomson Reuters Datastream (i.e. stock price, market capitalization, and book-to-market). Second, we manually collect accounting information from quarterly financial reports (i.e. PPE and AR).

##### 4.2 Variables of interest

Earnings Quality based on Persistence and Predictability view, we employ the operating income (*NIBE*) as an independent variable. For Earnings Quality regarding the smoothness perspective, we use correlation of Total Accruals (*ACC*) and Cash flow from operations (*CFO*) as a value of interest. To analyze Earnings Quality based on accrual quality, we are interested in the value of abnormal accrual values. Based on the value relevance perspective, we measure Earning Quality by using a return model having *NIBE* as an independent variable.

##### 4.3 Empirical Model

To test H1 which predicts that the compliance of IFRS 15 improves earnings quality being measured into four views; (1) Persistence and Predictability, (2) Smoothness, (3) Accrual Measure, and (4) Value relevance, we construct the following equations which are consistent with the work of Perotti and Wagenhofer (2014).

$$NIBE_{i,t} = \alpha + \beta 1NIBE_{i,t-1} + \beta 2TA_{i,t} + \beta 3PPE_{i,t} + \beta 4CHANGEinREV + \varepsilon_{i,t} \dots \dots \dots (1)$$

The equation 1 is to measure the earnings quality from the perspectives of Persistence (captured by Slope Coefficient  $\beta$  and Predictability (captured by R-Square)

$$\text{Correlation } \rho (ACC, CFO) \dots \dots \dots (2)$$

Where ACC and CFO are scaled by total assets at the beginning of period t. Greater values of the equation 2 indicate lower smoothness (Following the interpretation in some of the literature (e.g., Nanda et al., 2003)

$$ACC_{i,t} = \alpha + \beta 1(\Delta REV_{i,t} - \Delta AR_{i,t}) + \beta 2 PPE_{i,t} + \beta 3TA_{i,t} + \beta 4PPE_{i,t} + \beta 5CHANGEinREV + \varepsilon_{i,t} \dots \dots (3)$$

We employ equation 3 to measure the abnormal accruals.  $\Delta REV$  is the change in revenues,  $\Delta AR$  is the change in accounts receivable, and *PPE* is gross property, plant and equipment.

All variables are scaled by total assets at the beginning of period t. The abnormal accruals measure is the absolute residuals <sup>2</sup>, multiplied by a negative one.

$$\text{Negative standard deviation of residual } \varepsilon_{i,t} \text{ of } CACC_{i,t} = \alpha + \beta_1 CFO_{i,t-1} + \beta_2 CFO_{i,t} + \beta_3 CFO_{i,t+1} + \beta_4 TA_{i,t} + \beta_5 PPE_{i,t} + \beta_6 CHANGE_{i,t} + \beta_7 REV + \varepsilon_{i,t} \dots \dots \dots (4)$$

We establish equation 4 to analyze the accrual quality. All variables are scaled by total assets at the beginning of period t. The standard deviation of the residuals multiplied by negative one. The interpretation regarding the equation 3 and 4 is that higher values of ACC and Negative standard deviation of residual value indicate high earnings quality.

$$RET_{i,t} = \alpha + \beta_1 NIBE_{i,t} / P_{i,t} + \beta_2 MarketCAP + \beta_3 D/E \text{ Ratio} + \beta_4 Current \text{ Ratio} + \beta_5 CG \text{ Score} + \beta_6 Book \text{ to Market} + \varepsilon_{i,t} \dots \dots \dots (5)$$

Where *RET* is defined as the 12-month return ending 3 months after the end of the fiscal year, and *P* represents the market value of equity at the beginning of period t. Observations with *RET* in the top and bottom one percentile we treat as missing. If the  $\beta_1$  is significantly associated with *RET*, the interpretation is that *NIBE* is value relevant.

When analyzing H1, we separate dataset into two groups; Pre-adoption of IFRS 15 and Post Adoption of IFRS 15

To test H2 which predicts that the effect of IFRS 15 compliance on earnings quality is more pronounced when firms are within Telecommunication and Utilities industries, we employed a subsampling test. Dataset are divided into two groups; non Telecommunication and Construction industries group VS Telecommunication and Construction group. To analyze the effect of IFRS 15 on earnings quality of two groups, we employ the equation 1 to run the regression and we then use the Wald test to compare regression coefficients within the same model (different groups). If the coefficient of *NIBE* significantly differs between groups, the H2 is supported. The definition of all variables are presented in Appendix 1.

## 5. RESULT AND DISCUSSION

### 5.1 Descriptive results

As presented in Table 1, the results show that the average total assets of the sample are 1,254.164 million THB. Total current liability has an average amount at 1,254.062 million THB while cash and cash equivalent is about 1,233.732 million THB. This indicates that overall the liquidity of samples. The mean value of revenue of samples is 1,257.137 million THB while the mean value of cash flows from operations is 1,258.293. The information suggests the small difference between accounting revenue and cash flows of samples.

### 5.2 The results of H1 Test

#### 5.2.1 Persistence and Predictability

Table 2 presents the Time-series test of earnings quality using *NIBE* of the previous accounting year as a variable of interest and regress on the *NIBE* of the current year. Columns (1) to (4) show that *NIBEt-1* is significantly correlated with *NIBEt* (p-value < 0.01). Using a Wald statistical method test, the result further shows that the post-adoption

---

<sup>2</sup> Francis et al. (2005) suggest the absolute values for an EQ can be used to measure the accruals for analyzing earnings management.



group has a significant difference coefficient of NIBEt-1 compared to the pre-adoption group (Chi Square = 0.05). The findings indicate that the compliance of IFRS 15 improves the Earnings Quality based on the persistence and predictability of earnings view.

**TABLE 1** Descriptive Statistics

<b>Variable</b>	<b>N</b>	<b>Mean</b>	<b>Median</b>	<b>Minimum</b>	<b>Maximum</b>	<b>St.dev.</b>
<i>TA</i>	2519	1,254.164	964	22	2488	727.059
<i>TA<sub>t</sub></i>	2519	1,252.060	1252	19	2486	727.217
<i>CA</i>	2519	1,253.876	1253	22	2486	726.270
<i>CA<sub>t</sub></i>	2519	1,251.462	1251	19	2484	726.679
<i>CL</i>	2519	1,254.062	1253	22	2487	726.256
<i>CL<sub>t</sub></i>	2519	1,251.575	1251	19	2485	726.675
<i>CASH</i>	2519	1,235.645	1235	26	2467	724.778
<i>CASH<sub>t</sub></i>	2519	1,233.732	1233	26	2465	724.656
<i>REV</i>	2519	1,259.003	1259	25	2493	727.312
<i>NIBEt</i>	2519	1,258.779	1259	26	2492	726.551
<i>NIBEt-1</i>	2519	1,257.137	1257	26	2490	726.042
<i>CFO</i>	2519	1,258.293	1258	26	2492	726.905
<i>CFO<sub>t</sub></i>	2519	1,256.749	1256	26	2490	726.293
<i>DEPRE</i>	2519	1,256.296	1256	25	2489	725.969
<i>DEPRE<sub>t</sub></i>	2519	1,255.522	1255	23	2489	726.647
<i>AR</i>	2519	1,244.111	1244	10	2478	727.128
<i>AR<sub>t</sub></i>	2519	1,241.135	1241	9	2475	727.086
<i>PPE</i>	2519	1,255.020	1255	22	2489	727.283
<i>PPE<sub>t</sub></i>	2519	1,252.027	1252	19	2486	727.271
<i>CM</i>	2519	972.318	938	26	2130	653.346

CMt	2519	977.749	943	25	2135	653.238
TAX	2519	996.412	952	26	2174	659.937
TAXt	2519	1,004.376	964	25	2185	663.845

All variable are tested for the normality distributions and transformed as well as winsorized at level 1%

### 5.2.2 Smoothness

Table 3 reports the correlation between Total Accruals (*ACC*) and Cash flow from operations (*CFO*) capturing the smoothness of earnings. The result demonstrates that *ACC* is negatively and significantly correlated with *CFO* (coefficient = - 0.7544, p-value <0.10). In other words, *ACC* decreases, *CFO* increase suggesting that there is a possibility that the compliance of IFRS 15 tends to reduce *ACC*.

**TABLE 2** Persistence and Predictability

VARIABLES	(1) NIBEt	(2) NIBEt	((3) NIBEt_Post	(4) NIBEt_Pre	Chi-Square	Prob>Chi
NIBEt-1	0.608*** [37.60]	0.610*** [37.89]	0.672*** [9.15]	0.637*** [4.84]	0.05	0.8166
TAt	0.010*** [11.69]	0.010*** [11.70]	0.010*** [3.71]	0.007** [2.44]	0.38	0.5386
PPEt	-0.006*** [-3.30]	-0.005*** [-3.29]	-0.010** [-1.96]	-0.007 [-0.72]	0.05	0.8230
ΔREV	0.094*** [10.14]	0.098*** [10.60]	-0.044 [-0.61]	0.344*** [3.85]	11.46	0.0007
Constant	-62.617** [-2.57]	89.323 [1.35]	-38.844 [-1.28]	-50.426 [-1.08]		
Observations	2,518	2,518	2,518	2,518		
R-squared	0.89	0.89	0.92	0.90		
Adj. R-squared	0.89	0.89	0.92	0.90		
VIF	7.50	-				
Fixed Effect	-	Yes				
Group	361	361				

\*significant level at 0.10, \*\* significant level at 0.05, \*\*\*significant level at 0.01

**TABLE 3** Smoothness test result

Correlation	ACC	CFO
ACC	1.000	
CFO	-0.7544*	1.000

### 5.2.3 Accrual Measure

Table 4 presents the results of the regression of Revenue excluded account receivable (*RevminusAR*) on the accrual value. Based on the Column (1) and (2) results show that *RevminusAR* is significantly and negatively related to accrual value ( $p$ -value  $< 0.01$ ). This implies that cash based revenue increases when accrual decreases. That is, the revenue information of the samples seems to be less discretionary. However, this circumstance is insignificant when performing subsampling test; samples are classified into a pre-adoption group versus a post-adoption group. Although accruals measures are known as the most useful earnings quality measures (Perotti & Wagenhofer, 2014), the limited time-series dataset could affect insignificant results.

**TABLE 4** Accrual Measure Result

VARIABLES	(1) CACC	(2) CACC	(3) CACC-Post	(4) CACC-Pre	Chi-Square	Prob>Chi
CFO <sub>t-1</sub>	-0.066*** [-4.98]	-0.069*** [-5.13]	-0.126 [-1.42]	-0.144** [-2.57]	0.03	0.8618
CFO <sub>t</sub>	0.073*** [4.50]	0.075*** [4.53]	-0.738 [-1.33]	0.048 [1.31]	1.99	0.1582
CFO <sub>t+1</sub>	-0.024* [-1.66]	-0.024 [-1.61]	0.526 [1.32]	0.016 [0.22]	1.58	0.2087
TA	0.010*** [3.48]	0.010*** [3.50]	0.003 [0.33]	0.008 [1.11]	0.16	0.6888
PPE	-0.041*** [-6.47]	-0.041*** [-6.46]	-0.038* [-1.81]	-0.016 [-0.78]	0.56	0.4559
ChangeinREV	0.013 [0.39]	0.010 [0.30]	-0.333 [-1.37]	-0.152 [-1.23]	0.44	0.5067
Constant	133.185 [1.58]	469.170** [2.16]	263.924** [2.34]	44.766 [0.62]		

N	2,196	2,196	2,196	2,196
R-squared	0.20	0.20	0.28	0.21
Adj. R-squared	0.20	0.20	0.27	0.21
VIF	7.68	-		
Fixed Effect	-	YES		
Group	356	356		

\*significant level at 0.10, \*\* significant level at 0.05, \*\*\*significant level at 0.01

### 5.2.4 Value relevance measure

Table 5 demonstrates the relationship between NIBE of the current year and the 12-month return. With fixed effect regression, The Column (2) shows that the NIBE is insignificantly associated with returns. This implies that the compliance of IFRS 15 does not significantly affect Earning Quality in terms of value relevance. This is perhaps due to the fact that equity investors do not solely use NIBE as a measure of investment decision making.

Overall, the compliance of IFRS 15 improves the quality of earnings from the perspectives of persistence and predictability and smoothness. Therefore, H1 is partially supported.

**TABLE 5** Value Relevance Result

VARIABLES	(1) RET	(2) RET	(3) RET-Post	(4) RET-Pre	Chi-Square	Prob>Chi
NIBEt/Pt	-0.000 [-0.26]	-0.000 [-0.11]	-0.000 [-1.58]	-0.000 [-0.02]	2.12	0.1449
TA	0.000** [2.21]	0.000 [0.81]	0.000*** [3.04]	0.000*** [3.42]	1.33	0.2491
PPE	-0.000 [-1.62]	-0.000 [-0.41]	-0.000** [-2.00]	-0.000*** [-2.93]	1.28	0.2578
ΔREV	-0.000 [-0.32]	0.000 [0.05]	0.001 [0.73]	-0.003 [-1.59]	03.05	0.0810
Constant	24.511*** [7.82]	28.184*** [3.74]	21.979*** [6.86]	27.731*** [4.95]		
Observations	2,120	2,120	2,120	2,120		
R-squared	0.06	0.01	0.01	0.01		
Adj. R-squared	0.05	0.01	0.01	0.01		

VIF	7.28	-
Fixed Effect	-	YES
Group	350	350

\*significant level at 0.10, \*\* significant level at 0.05, \*\*\*significant level at 0.01

**TABLE 6 H2 result**

VARIABLES	(1) NIBEt	(1) NIBEt- IT&Construction	(3) NIBEt-Other	Chi-square	Prob>square
NIBEt-1	0.608*** [37.60]	0.695*** [8.43]	0.656*** [5.11]	0.07	0.7987
TAt	0.010*** [11.69]	0.005** [2.46]	0.011*** [3.70]	3.09	0.0786
PPEt	-0.006*** [-3.30]	-0.002 [-0.75]	-0.011 [-1.63]	1.40	0.2361
$\Delta REVi,t$	0.094*** [10.14]	0.419*** [7.00]	0.031 [0.40]	15.89	0.0001
Constant	-62.617** [-2.57]	-23.427 [-0.72]	-42.584 [-1.33]		
Observations	2,518	2,518	2,518		
R-squared	0.89				
Adj. R-squared	0.89				

\*significant level at 0.10, \*\* significant level at 0.05, \*\*\*significant level at 0.01

### 5.3 The result of H2 test

Table 6 reports the relationship between NIBEt-1 and NIBEt, and the effect of predictive value of earnings using the subsampling test of Non-IT and Construction VS IT and Construction groups. The Column (1) shows that the coefficient of NIBEt-1 is positively and significantly associated with NIBE (coefficient = 0.608, p-value < 0.01) suggesting that the operating income of the previous period has predictive value and hence earnings quality. The Column (2) indicates that the coefficient of NIBEt-1 is more pronounced when firms are within the IT and Construction sector (coefficient = 0.695, p-value < 0.01). Using a Wald statistical Test, the coefficient of NIBEt-1 of the IT and Construction group significantly differs from the NIBEt-1 of non-IT and Construction group. This suggests that the effect of the compliance of IFRS 15 on the earnings quality in terms of predictability is

more impacted when firms are categorized in IT and Construction industries where the contract with customers is considered to be relatively more complex.

## 6. CONCLUSION

This research aims to investigate the effects of International Financial Reporting Standard (IFRS) 15 Revenue from contract with customers on earnings quality. This study also examines whether the complexity of revenue recognition moderate the effects of IFRS 15 implementation on earnings quality. We employed 489 companies from emerging countries, namely Thailand to test the propositions. Our regression tests indicate that the compliance of IFRS 15 contributes to the earnings quality regarding the predictability, the persistence, and the value relevance perspectives. Specifically, we find that operating income has better predictive and confirmatory value in the post - adoption of IFRS 15 periods. The results also point out that the compliance of IFRS 15 leads to the reduction of the standard deviation value of operating income and cash flows. Our findings also demonstrate that IFRS 15 application reduces the excessive returns enhancing information quality. Our findings are more pronounced in the complex business environment group; firms that are listed in IT, and Real Estate and Construction sectors. Overall, our findings lead to the conclusion that the compliance of IFRS 15 improves earnings quality. Results are stronger when earnings are reported by firms that are categorized in IT, Real Estate and Construction industries where the contracts with customers are considered to be relatively complex.

Findings of this study contribute to literature, and professional bodies in many ways. *First*, our findings offer insights about the economic consequences of IFRS 15 adoption from emerging contexts where earnings quality is of public concern. *Second*, this study enriches our understanding that the implementation of IFRS 15 is effective in terms of earnings quality improvements in particular in the IT, and Real Estate and Construction industries that business operate in the complex environment. *Third*, our study highlights that although IFRS 15 allows management to exercise judgments and high levels of estimates in revenue recognition, it does not always reduce financial information quality. Implicitly, the findings of this study provides empirical evidence that managerial judgments and estimates could bring about more faithful financial information due to it being reported according to the economic substance rather than prescription.

## REFERENCES

- [1] Batta, G., Sucre Heredia, R., & Weidenmier, M. (2014). Political connections and accounting quality under high expropriation risk. *European Accounting Review*, 23(4), 485-517.
- [2] Brahmono, A. Y. A., & Purwaningsih, A. (2022). Real Earnings Management Practices in Indonesia: Opportunist or Efficient Earnings Management Practices?. *Review of Integrative Business and Economics Research*, 11, 191-200.
- [3] Boujelben, S., & Kobbi-Fakhfakh, S. (2020). Compliance with IFRS 15 mandatory disclosures: an exploratory study in telecom and construction sectors. *Journal of Financial Reporting and Accounting*, 18(4), 707-728.
- [4] Cascino, S., Pugliese, A., Mussolino, D., & Sansone, C. (2010). The influence of family ownership on the quality of accounting information. *Family Business Review*, 23(3), 246-265.

- [5] Cairns, D. (2007). The use of fair value in IFRS. *The Routledge Companion to Fair Value and Financial Reporting*, Abingdon, Oxon: Routledge, 9-23.
- [6] Christie, A. A., & Zimmerman, J. L. (1994). Efficient and opportunistic choices of accounting procedures: Corporate control contests. *Accounting Review*, 539-566.
- [7] IFRS Foundation. (2018). Conceptual framework for financial reporting. Available on <https://www.ifrs.org/projects/completed-projects/2018/conceptual-framework/>
- [8] Chua, Y. L., Cheong, C. S., & Gould, G. (2012). The impact of mandatory IFRS adoption on accounting quality: Evidence from Australia. *Journal of International Accounting Research*, 11, 119–146.
- [9] Christie, A. A., & Zimmerman, J. L. (1994). Efficient and opportunistic choices of accounting procedures: Corporate control contests. *Accounting review*, 539-566.
- [10] Dechow, P., & Schrand, C. (2004). *Earnings quality*. VA: The Research Foundation of CFA Institute. Dechow
- [11] Habib, A., Bhuiyan, M. B. U., & Hasan, M. M. (2019). IFRS adoption, financial reporting quality and cost of capital: A life cycle perspective. *Pacific Accounting Review*.
- [12] Lee, C. W., & Azis, M. I. (2023). The Effect of Adopting International Accounting Standards on Corruption under Financial Reporting Basis. *Review of Integrative Business and Economics Research*, 12(1), 40-55.
- [13] Napier, C. J., & Stadler, C. (2020). The real effects of a new accounting standard: the case of IFRS 15 Revenue from Contracts with Customers. *Accounting and Business Research*, 50(5), 474-503.
- [14] Peng, S., & Bewley, K. (2010). Adaptability to fair value accounting in an emerging economy. *Accounting, Auditing & Accountability Journal*, 23(8), 982 – 1011.
- [15] Pietro Perotti and Alfred Wagenhofer. (2014). Earning Quality Measure and Excess Returns. *Journal of Business Finance & Accounting*, 545 - 571
- [16] PwC. (2019). Empowering the NextGen: The key to achieving growth and enduring prosperity: Thailand family business survey 2019. Available on <https://www.pwc.com/th/en/services/epb/thailand-Family-Business-survey-2019.html>
- [17] Songini, L., Gnan, L., & Malmi, T. (2013). The role and impact of accounting in family business. *Journal of Family Business Strategy*, 4(2), 71-83.
- [18] Tutino, M., Regoliosi, C., Mattei, G., Paoloni, N., & Pompili, M. (2019). Does the IFRS 15 impact earnings management? Initial evidence from Italian listed companies. *African Journal of Business Management*, 13(7), 226-238.
- [19] Usurelu, V. I., Dutescu, A., & Jarvis, R. (2021). Challenges and Controversies Related to IFRS 15 Implementation. In *Business Revolution in a Digital Era* (pp. 331-343). Springer, Cham.
- [20] Schipper & Vincent. (2003). Earning Quality. *Accounting Horizons*, 97-110.
- [21] Adibah Wan Ismail, W., Anuar Kamarudin, K., van Zijl, T., & Dunstan, K. (2013). Earnings quality and the adoption of IFRS-based accounting standards: Evidence from an emerging market. *Asian review of accounting*, 21(1), 53-73.

**APPENDIX 1: VARIABLE DEFINITIONS**

<b>Labels</b>	<b>Meaning</b>
$NIBE_{i,t}$	Operating Income of the current financial reporting date
$NIBE_{i,t-1}$	Operating Income of the previous financial reporting date
$TA_{i,t}$	Total Asset of the current financial reporting date
$PPE_{i,t}$	Gross amount of Property, Plant, and Equipment of the current financial reporting date
ACC	Total Accrual
$\Delta REV_{i,t}$	Changes in Revenue
$\Delta AR_{i,t}$	Changes in Account receivable
$CACC_{i,t}$	Current accruals (CACC) is computed as $CACC = CA - CL - CASH + STDEBT$
$CFO_{i,t}$	Cash flows from operations of the current period
$CFO_{i,t-1}$	Cash flows from operations of the previous period
$CFO_{i,t+1}$	Cash flows from operations of the next period (captured estimated cash flows)
$RET_{i,t}$	The 12 month return
$P_{i,t}$	Stock price as at financial reporting date
Industry	Telecommunication, and Real Estate and Construction Sectors