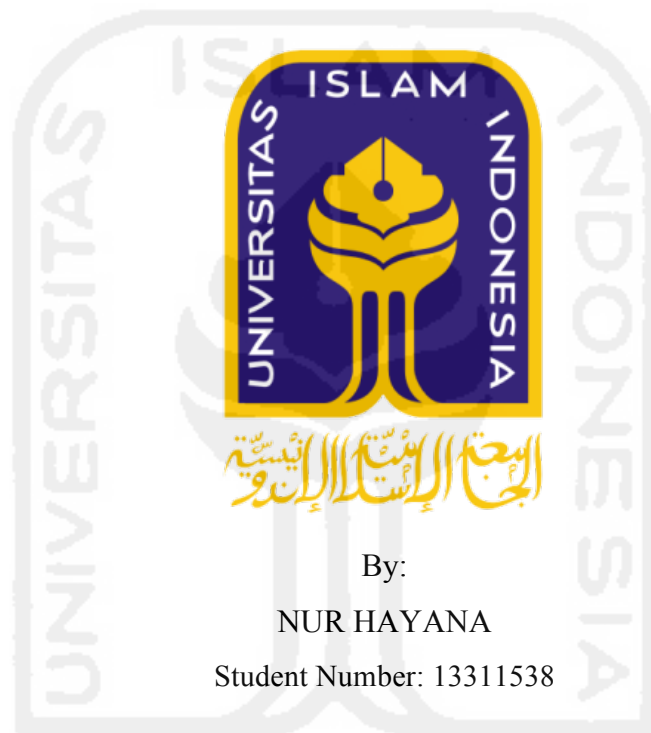# ACCRUAL ANOMALY IN INDONESIA STOCK EXCHANGE

A RESEARCH JOURNAL

Presented as Partial Fulfillment of the Requirements
to Obtain the Bachelor Degree in Management Department

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Accrual Anomaly in Indonesia Stock Exchange

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ABSTRACT

This research aimed to detect the existence of accrual anomaly in Indonesia Stock Exchange by forming portfolios of cumulative abnormal return on the basis of accrual rate. The period of the research was performed from 2013-2015 and the samples used in this research were all non-financial firm stocks in Indonesia Stock Exchange. In measuring the existence of accrual anomaly, the cumulative abnormal return of each accrual portfolios used as proxy in this research. The accrual portfolios (High and Low) formed based on the 30% top accrual firms and the 30% low accrual firms from total samples. Furthermore, this research performed the independent t-test to look out whether the firms with low (high) accruals gain higher (lower) abnormal return, where the existence of accrual anomaly can be detected. The result of the study showed that the high accrual firms generate higher abnormal return than low accrual firms during 2013-2015, which means the existence of accrual anomaly cannot be detected and cannot be proven to be significant to generate abnormal return in Indonesia Stock Exchange.

Keyword: *Accrual, Accrual anomaly, Abnormal Return*

ABSTRAK

Penelitian ini bertujuan untuk mendeteksi keberadaan anomali akrual di Bursa Efek Indonesia dengan membentuk portfolio *cumulative abnormal return* berbasis tingkat akrual. Periode penelitian dilakukan dari 2013 sampai dengan 2015 dan sampel yang digunakan dalam penelitian ini adalah semua perusahaan non keuangan yang berada di Bursa Efek Indonesia. Dalam perhitungan mendeteksi keberadaan anomali akrual, *cumulative abnormal return* digunakan sebagai proksi dalam penelitian ini. Akrual portfolio (tinggi dan rendah) dibentuk berdasarkan 30% perusahaan yang memiliki tingkat akrual tinggi dan 30% perusahaan yang memiliki tingkat akrual rendah dari total sampel. Selanjutnya, penelitian melakukan *independent t-test* untuk melihat apakah perusahaan yang memiliki tingkat akrual rendah (tinggi) memiliki *abnormal return* yang lebih tinggi (rendah). Maka hasilnya, penelitian ini menunjukan bahwa perusahaan yang memiliki tingkat akrual tinggi memberikan *abnormal return* yang lebih tinggi daripada perusahaan yang memiliki tingkat akrual rendah selama tiga tahun periode penelitian dari 2013-2015, ini menunjukan bahwa keberadaan anomali akrual tidak dapat terdeteksi dan tidak terbukti signifikan di Bursa Efek Indonesia.

Kata Kunci: Akrual, Anomali Akrual, *Abnormal Return*

BACKGROUND

In the capital market, investors (individual or institutions) expected that the stock value would be increasing or gain return. Commonly, the increasing of the stock price will give the investors opportunities to gain return. Consequently, investors anxious that the stock price will be increasing in the future, which the selling price of the stock is higher than the buying prices so that investors can obtain return from the quarrel.

Besides that, investors will be facing a risk that the stock price will be in declining stage. This phenomenon should be considerate by investors especially on predicting the future stock price. Fundamentally, the increasing of stock price is influenced by the ability of company assign the return for the investors. Return has tight relation with earning. Thereby, future earning is the main determinant of future stock prices. These shown by Fischer and Jordan (1991) that earning influence the stock prices.

Sloan (1996) explained there are two components of earnings; accrual component and cash flow component. Sloan (1996) indicated that the accrual component of earnings exhibits lower persistence than the cash flow component of earnings. Means that, cash flow from operations predicts future profitability more strongly than do accruals. A neglect of this distinction would cause investors

to be too optimistic about the prospect of firms with high accruals and too pessimistic about the prospects of firms with low accruals. As shown in Sloan (1996), the stock price act as if investors "fixate" on earnings, the investors fail to distinguish fully between the different properties of the accrual and cash flow components of earnings. Consequently, firms with high (low) levels of accruals experience negative (positive) future abnormal stock return that is concentrated around future earnings announcements. This pattern, known as the accrual anomaly, which is controversial because it conflicts with the claim of the efficient market hypothesis that all public information is correctly impounded into prices so that impossible for investors to gain excess return.

The first research introduced by Sloan (1996) reported that the accrual anomaly exists in the U.S stock market. Further, the researchers (Collins & Hribar, 1999; Bradshaw, Richardson, & Sloan, 2001; Chen & Cheng, 2002) have sought to confirm or extend the presence of accrual anomaly in U.S. stock market. Xie (2001) confirms Sloan`s results and decomposes total accruals into normal accrual and abnormal accrual components by using Jones (1991) model. The authors indicate that investors overprice total accrual components and mispricing in abnormal accruals of U.S stock market. Hence, the persistence of accrual anomaly persists and the magnitude has not declined over time in U.S market and its conjecture that individual and institutional investors will learn more about it and arbitrage in anomaly way to get an abnormal return. Lev and Nissim (2006) found that institutional investors tend to react to accruals information than individual investors.

Moreover, the presence of the accrual anomaly is investigated internationally, as well. Pincus, Rajpogal, and Venkatachalam (2007) examined whether accrual anomaly generalize to the other countries outside U.S, it's showed that the accrual anomaly more likely to occur in countries with common law legal tradition than code law and more extensive use of accrual accounting countries such as Australia, Canada, United Kingdom, and United States. In the other hand, Leippold and Lohre (2010) demonstrate the existence of accrual anomaly in both common law countries (Australia, Canada, Hong Kong, Ireland, Thailand, United Kingdom, United States) and code law countries (Denmark, France, Germany, Italy, Japan, Switzerland). Thus, the presence of accrual anomaly in international issues also found by Lafond (2005) in both common and code law countries.

Furthermore, Ozkan and Kayali (2015) reported that the full sample of the research do not indicate of mispricing in the component earnings on Borsa Istanbul. After the authors exclude the loss firms from the sample, mispricing of total accruals and its components thus presence of accrual anomaly is revealed. In Borsa Istanbul, the trading strategy based on total accruals of profit firms, investors may generate abnormal return of 18.50%. The trading strategy requires taking a long (buy) position in the portfolio consisting of stocks of firms reporting a relatively low level of total accruals and a short (sell) position in the portfolio consisting of stocks of firms reporting a relatively high level of total accruals

(Sloan, 1996). In addition, the prior research above in line with the finding of Clinch, Fuller, Govendir, and Wells (2012) that the evidence of accrual anomaly also found in Australia stock market, which the distinct that in Australia stock market the returns to the hedge-portfolio formation decreasing overtime in 3-year period and only significant on the first year. But, the presence of accrual anomaly is not proven in Brazilian stock market (Cupertino, Martinez, & Costa, 2012) and China stock market (Li, Niu, Zhang, & Largay, 2011).

Kho and Kim (2007) examined that the accrual anomaly reflects the mispricing of accruals and not related with any risk factor in Korean stock market. Mispricing of accruals on the stock return occur because investors pay attention only on one component of earnings. These stimulate another research to examine whether the accrual anomaly reflects market mispricing or can be captured by identifying the risk factors in stock returns. Hirshleifer, Hou, and Teoh (2012) found that the accrual characteristics that predicts returns rather than the accrual factor loading (risk) and shown that the accrual anomaly weakened over time and increase in volatility in U.S. stock market. Moreover, Ohlson and Bilinski (2015) confirmed that accruals do not reflect risk and the accrual anomaly is indeed an "anomaly".

In other hand, the research regarding the accrual anomaly is not much investigated in Indonesia stock market. Indonesia Stock exchange experienced the accrual anomaly but it only clearly seen in the specific period of 2005 and 2006 but it does not found in 2003 and 2004 (Toha & Harahap, 2012). On the contrary, Aunilah and Ghofar (2014) found there are no occurrences of accrual anomaly in Indonesia stock exchange in the period of 2002 until 2007.

Further investigation on the accrual anomaly is needed especially in Indonesia stock exchange, which are only limited research investigate on this topic. This research attempts to investigate the existence of the accrual anomaly in Indonesia Stock Exchange in the period 2013-2015, which yet found authors examine during this period from prior research.

LITERATURE REVIEW

Efficient Market Hypothesis (EMH)

Based on Fama (1970), Efficient Market Hypothesis (EMH) hold the basic assumption that the movement of price in the past cannot be use to predict price in the future. Besides, in efficient capital market the stock price basically can reflect all available information in stock market. Consequently, in EMH concept, investors able to respond immediately toward the new information available in the market, so that there is no scope for investors to gain abnormal return.

Stock Market Anomalies

Market anomaly is any event that can be exploited to produce abnormal returns. In other words, market anomaly appears when the situation in which a performance of stock or group of stocks deviate from the assumptions of Efficient

Market Hypothesis (Fama, 1970) where it's impossible to gain abnormal return. Consequently, market anomaly implies the market inefficiency.

In the extent which investors are irrational, it can influence security prices, which results in mispricing (Baker, Malcom, Ruback, & Wurgler, 2007). In real investment, mispricing can affect the financial decision making that investors might be overestimate or underestimate the result of a certain investment when they do not know well \about the publicly information in the market. Thus, arise investor biases toward the market as the indicator of the anomalies in the stock market. Based on Levy and Post (2006), there are four categories of stock market anomalies; firm anomalies, event anomalies, calendar anomalies, and accounting anomalies.

First, the anomalies that result from firm-specific characteristic categorized as firm anomalies (Levy & Post, 2006). The firm anomalies can be broadened discuss imply to such events. For instance, the small firms tend to outperform large ones on a risk-adjusted basis, an anomaly called the size effect. The size effect anomaly discovered in the India Stock market and the anomaly continues to exist in India from 1997 – 2014 (Balakrishnan, 2016). Therefore, Balakrishnan (2016) reported that the value and momentum effect continue to exist in India stock market and these anomalies are lest substantially unexplained by asset-pricing model.

Second, Levy and Post (2006) stated that the event anomalies exist due to the price changes that occur after some easily identified event. For instance, analyst's recommendation, the more likely it is that the security's price will fall in the near future. When one or two analysts discover an undervalued stock, they recommend it to the clients, so when the clients buy the stock the price is increasing. The increasing of security price attracts the attention of other analysts who subsequently recommend it, pushing the price even higher. This pattern will continue until some analysts changing their recommendation in buying or selling, and the price subsequently decline. Welagedara, Deb, and Singh (2016) reported that investors underreact after recommendation upgrades in US market over period 2004-2013. In US stock market, it's found stocks that receive greater attention from individual investors show greater price after analyst recommendation upgrades and hence induce overreaction on security price after recommendation downgrades.

Third, calendar anomaly is an anomaly that depends solely on time (Levy & Post, 2006). For instance, the January effect or anomaly is the tendency for stock prices to be abnormally up in January and late December. It showed by Shiu, Lee, and Gleason (2014) that the January effect exist in the Taiwanese market over period 2001-2010. The research indicates that institutional and individual investors mitigate the January effect, where as domestic trust do not.

Fourth, accounting anomaly shows from the changes in the stock prices that occur after the release of the accounting information (Levy & Post, 2006).

P/E ratio anomalies as one example of accounting anomaly, which stocks with low P/E ratios tend to have higher returns. In addition, earning momentum anomaly attracted a lot of attention; in which stock of firms whose growth rate of earning has been increasing tend to outperform other similar securities. Schneider and Gaunt (2012) found a price and earnings momentum effect in Australian stock market. The strongest earning momentum effect showed in the first year over period 1990 – 2006.

Accrual & Cash Component

Statement of Indonesia Financial Accounting Standards (IFAS) supposed every public company to convey the financial statement as the form of their responsibility. The objective of the financial statement is to give information toward the position and company financial performance to the readers of financial statement. To achieve the goal, financial statements arrange based on the basic accrual.

The principle of accrual in finance cause a transaction activity noted based on the economic substance, not the cash flow. The implementation of this principle will involve several activities such as estimation, allocations, and other management decisions are being subjective. As the consequences from the accrual principle, earning reporting consist of two components; *accrual component* and *cash component. Accrual component* is earning that obtained from the accountant decision to recognize an economic activity as earning (whether *income* or *expense*) without any cash flow. Hence, *cash component* is earning that obtained in accountant and there is a cash flow physically. In many financial literatures, mentioned that these two earning components have different quality and persistence rate.

Earning quality is an earning ability in financial statement to explain the real company earning condition at once can be used to predict the future earnings (Bellovary et al., 2005). Earning quality refer to the *stability*, *persistence*, and *lack of variability* from reported earnings. This research shows that the earning quality influenced by the economic characteristics, fundamental of financial statement and the method (Subramanyam & Wild, 2009).

Accrual Anomaly

Sloan (1996) first defined that earning performance attributable to the accrual component of earnings reveal lower persistence than earnings performance attributable to the cash flow component of earnings in US stock market. These two components of earning are being considerate for investors when they value a firm. Moreover, the result also indicate that stock prices act as if "investors" fixate on earnings, so investors fail to distinguish fully between those two components of earnings. Consequently, firms with relatively high (low) levels of accruals experience negative (positive) future abnormal stock returns that are concentrated around future earnings announcement. This case can stimulate underprice on the stocks that have low accrual component and overprice on the

stocks that having high accrual component Thus, pattern called as *accrual anomaly*, which contradict with the efficient market hypothesis that investors impossible to obtain excess return or abnormal return. Hence, the study of Sloan (1996) documented that the investment strategic for the stocks that have low accruals (underprice) is to buy (long) and the investment strategic for the stocks that have high accruals (overprice) is to sell (short). In this research, Sloan (1996) computed the earning component based on the balanced sheet and income statement.

Following Sloan (1996) original finding on the existence of accrual anomaly in U.S stock market, it stimulates numerous studies in the financial economics and accounting literatures to improve the measurement of accruals anomaly by further breaking down the accruals component to outline the underlying mechanisms. Collins and Hribar (1999) conducted the analysis of accrual anomaly from different insight that used in Sloan (1996). The study investigates whether the accrual-pricing anomaly documented in Sloan (1996) for annual data hold for quarterly data and whether this form of market pricing is distinct from the post-earnings announcement drift anomaly. The study found that the markets tend to be over estimate (under estimate) the persistence of the accrual (cash flows). In addition, the study found that the accrual mispricing appears to be distinct from post-earning announcement drift and proved that the hedge portfolio strategy that exploits from both forms of market mispricing generate abnormal returns more than those based on unexpected earnings, accruals, or cash flow information. Moreover, Bradshaw et al. (2001) tried to seek whether the public opinions from analysts are correlated with the future earning problems experienced with the firms with high accrual. It found that the evidence of analyst and auditors do not alert investors to the future earnings problem associated with high accruals and corroborate the previous finding that investors do not appear to anticipate these problems.

Furthermore, several research conducted the study by differentiate the componenr accrual based on the discretionary and non-discretionary. Xie (2001) investigate the market pricing using the abnormal accruals or often term discretionary accruals and discovered that the mispricing is driven by abnormal accrual as measured in Jones (1991). Hence, the study suggesting that investors overprice accruals that are driven by earnings management. Furthermore, Chen and Cheng (2002) document that abnormal based accrual anomaly systematically associated with manager's motivation to record abnormal accruals. It suggests that the investor's failure to detect the manager's motivation to record abnormal accrual so that the failure provides managers an opportunity to engage in opportunistic earnings management and hence hinders manager's ability to communicate private information to the stock market via abnormal accruals.

Lev and Nissim (2006) suspected that accrual anomaly persists and the magnitude has not decline over time in US stock market. Hence, the authors conjectured that the investors would learn more about it and arbitrage in the anomaly way to obtain abnormal return. Therefore, the author's attempts to

analyze the trading strategy between institution and individual investors associated with the implementation of accruals strategy in US stock market over period 1981-2001 and hence excluding the financial institutions from the samples. The results showed that institution investors tend to react to accruals rather partially anticipate of the accruals information and mostly happen in the quarter of disclosure and exhibited that particularly individual investors not trading on accruals information because the implementation of accruals strategy involves high-performance processing. Hence, Hirshleifer, Hou, and Teoh (2009) found that the effect of firm-level accrual mispricing is reversed at the aggregate level rather than cash flow effects. Aggregated accruals are a strong positive predictor of market return, making the accrual anomaly even more of perplex.

Following the study of accrual anomaly from previous section in the U.S stock market, it's conjectured that the accrual anomaly must also show up in various market outside U.S stock market. However, evidence of the accrual anomaly in international scope of market is conflicting and scanty. The study of Li et al. (2011) attempt to proven the existence of the accrual anomaly in China stock market, which the accounting based-characteristics differ from the other countries in the extent of using delisting regulation. The empirical result showed that unable to detect the accrual anomaly in China's stock market. But, after observing a disproportionate number of "big-bath" loss firm-years in the lowest decile of accruals in the sample, the authors excluded the earnings distortion induced by the delisting regulation and hence documented the presence of accrual anomaly in China's stock market. Thus, the authors conclude that the delisting regulation creates an inconsistency distribution of firm earnings in China that affects the market pricing of accruals.

Cupertino et al. (2012) found there is no evidence of accrual anomaly in Brazil stock market over period of 1990 – 2008 and hence the trading strategy based on accruals does not provide consistently positive returns. Some specific circumstances in Brazilian capital markets and corporate reporting system, such as poor corporate governance, concentrated ownership, lack of transparency in the disclosure of accounting number may provide explanation regarding the result of the study. In this spirit, institutional differences, the legal regime followed (code law versus common law tradition), corporate governance, the role of auditing, the influence of sophisticated investors and the relevance of accounting information are some of the many variables that can be employed to study the effect of accruals in the Brazilian capital market.

Ozkan and Kayali (2015) reported that Borsa Istanbul do not indicate mispricing in the components of earnings over period 2005 – 2010. The empirical research on accrual anomaly is performing by using Mishkin test and hedge portfolio analysis. But, when the study excludes the loss firms from the full sample, the presence of accrual anomaly is revealed in Borsa Istanbul. Using the trading strategy on total accruals of profit firms, investors may generate abnormal returns of 18.5%.

Furthermore, the study of accrual anomaly has been investigated in the aggregate countries. According to Pincus et.al (2007) accrual anomaly is more likely to occur in Australia, Canada, United Kingdom, and United State. The authors propose that the anomaly may be due to earning management and barriers to arbitrage. Using country level-data, the authors stated that the anomaly is more likely to occur in common law countries (Australia, Canada, U.K, U.S., etc.) and in countries that allow extensive use of accrual accounting, have a lower concentration of share ownership and stronger shareholder protection rather than in code law countries (Indonesia, Japan, Italy, Taiwan, etc.). The authors included 20 countries over the period 1994-2002.

Leippold and Lohre (2010) done similar studies with Pincus et al. (2007), which examine globally the accrual anomalous based on country level data. Leippold and Lohre (2010) investigate in 26 equity markets for the period from 1994 – 2008. Evidence reveals the anomaly occurs in some countries, but the authors consider that some of the findings may be spurious because of data snooping biases that arise when test simultaneously several hypotheses. Abnormal returns are identified in ten countries (common and code law countries) after adjusting for common risk factor.

LaFond (2005) also examines whether the accrual anomaly is a global phenomenon and comes up with results that are different from those of Pincus et al. (2007). Except for the U.S., LaFond (2005) uses data from Datastream/Worldscope over the period 1989 – 2003 within the sample of 17 developed countries. The evidence of accrual anomaly found in 15 countries. According to the empirical result of this research, the accrual anomaly is therefore not due to specific accounting measurement issues or any institutional country-specific characteristics, but to the general use of accrual accounting.

In Indonesia stock market, Ratmono and Cahyonowati (2005) analyzed whether the abnormal accrual is the cause of mispricing in the earnings components. This research is similar to the study of Xie (2001) in the US stock market. All public company in Indonesia stock exchange over period 1999 – 2002 use as the sample of the empirical research excluding the financial institutions. The authors perform the earnings and abnormal return equation on Xie (2001) and perform the sensitivity analysis. In Indonesia stock exchange, abnormal return experienced lower persistence than cash flow and accrual component of earnings. Consequently, it proved that security price fails to distinguish between accrual and cash flow components from current earning to affect the future earnings of security price. Overall, the research showed that the low persistence and mispricing of total accrual caused by the magnitude of accrual abnormal in Indonesia Stock Exchange.

Toha and Harahap (2012) examined the existence of accrual anomaly in Indonesia stock exchange as 121 firms listed in the period from 2002 until 2007. The authors excluded the financial institutions from the total samples. The empirical study uses the model of portfolio that used in the study of Lev and Nissim (2006). The accrual portfolio formation based on size and book-to-market

ratio portfolio and then performs linear regression to test the relation between all variables. The empirical result of the study proved that the accrual anomaly exists in Indonesia stock exchange. But the result showed inconsistency since the accrual anomaly only presence in 2005 and 2006 but not in the period 2003 and 2004. In addition, this research does not found any correlation between accrual and abnormal return in regression. In contrast, Aunilah and Ghofar (2014) unable to detect the existence of accrual anomaly in Indonesia Stock Exchange. The observation of the study in the period from 2002 until 2007 and the sample use is the same as Toha and Harahap (2012). The model of the study similar to the model use in Toha and Harahap (2012) but it's still controversial whether the empirical result showing the different result toward the accrual anomalies.

H1: The accrual anomaly exist in Indonesia Stock Exchange

RESEARCH METHOD

Data and Sample

The population of this research is all public companies in Indonesia that listed in IDX over period 2013-2015. The selection of the sample is using the *purposive sampling* method to get the samples with specific criteria. The criteria of samples selection criteria   are the financial institutions excluded from the sample because of peculiarities in the accruals formation for such firms (Pincus et al., 2007); the public companies with complete data of annual report (market prices, earnings component, cash flow component) with fiscal years ending at December during period 2013 – 2015. The historical data sources for such firms are using in this research. The complete financial data from non-financial firms such as monthly market prices, annual financial report is use in this research. The type of data that will be use is secondary data that are obtained from several sources, which are Osiris, Indonesian Stock Exchange Website and Yahoo! Finance.

Research Measurements

Following Sloan (1996), the accrual component of earnings is computed using information in the balance sheet and income statement, as it's common in the earnings management literature (Dechow, Sloan, & Sweeney, 1995). Collins and Hribar (1999) reports that the balance sheet approach to measuring accruals introduces measurement error into the accruals estimate, primarily due to merges and acquisitions and discontinued operations. While, the cash flow based measurement of accruals is not effected by such corporate events. Cash flow method is used by Collins and Hribar (1999), Xie (2001), and Pincus et al. (2007).

Therefore, to avoid such error measurements, this research using accrual component based on the information from cash flow statement, which accrual anomaly calculated from the quarrel of earnings (net income before extraordinary item) and net cash flow from operation divided with the average of total assets. The accrual rate data are gathered annually at the end of fiscal year December.

After that, the accrual rate was classified into three groups of accrual rate (Low, Medium, High). The classification of three groups of accruals are based on bottom 30%, middle 40%, and top 30% breakpoint for firms in each category of accruals.

Next, determined the abnormal return of the firms based on the three group classification of stocks based on the accrual rate. The calculation model of *abnormal return* in this research is using *market-adjusted model,* where this model considering that the appropriate benchmark to estimate *return* of stock is the *return* market index when observation times. The measurement of the monthly return begins four months after the end of the fiscal year from which the financial statements are gathered to ensure that accounting information is available to investors prior to the return cumulative period. Alford, Jones, and Zmijewski (1994) report that, by this time, almost all firms' financial statements are publicly available.

Related to the first hypothesis testing that there is accrual anomaly in Indonesian Stock Exchange from period 2013 – 2015, then this research conducted significance test *independent sample t-test* of average cumulative abnormal return based on the level of accrual-stock portfolio (High and Low) on each observation period. The significance test conducted as the measurement of the difference between average cumulative abnormal return in high accrual portfolio companies and low accrual portfolio companies as the indication of accrual anomaly existence. Meanwhile, the criteria of first hypothesis testing, as follows:

a) $ACAR_{ACClow} > ACAR_{ACChigh}$ indicate that the *accrual anomaly* detected in stock market

b) $ACAR_{ACClow} < ACAR_{ACChigh}$ indicate that the *accrual anomaly* is not detected in stock market.

If the average cumulative abnormal returns on the low accrual portfolios are significantly higher than average cumulative abnormal return on the high accrual portfolios, the existence of accrual anomaly can be accepted.

DATA ANALYSIS AND DISCUSSION

Data Analysis

The construction of the accrual rate is sorted based on the calculation of accrual based on the cash flow. Then, the accrual rates are classified into two groups of accruals (Low and High) and ranked in descending order. The top 30% firms are classified as the high accrual and the low 30% firms are classified as the low accrual (Hirshleifer et al., 2012). The hypothesis testing on the accrual portfolio is only tested on the low and high accrual stock firms where the existence of accrual anomaly detected if only the ACAR low accrual larger than ACAR high accrual. The accrual is calculated in yearly basis for each firm with end fiscal year on December. In addition, abnormal return used as a proxy in analyzes the

existence of accrual anomaly. The abnormal return calculates use market adjusted model, which the return data of all firms are gathered in monthly basis and cumulated for yearly.

The result of the independent t-test of ACAR for each year's observation (2013-2015) based on the accrual portfolio is shown in Table 4.5. In 2013, the ACAR mean in high and low accrual firms are 0.21415699 and 0.06122155. In 2014, the ACAR mean in high and low accrual firms are -0.00179174 and -0.01727973. In 2015, the ACAR mean in high and low accrual firms are 0.05717468 and 0.04268571. Means that, in three years observation of each portfolio (2013-2015) showed that the ACAR mean of low accrual firms are lower than the ACAR mean of high accrual firms. Thus, the hypothesis testing of the accrual anomaly is not proven for the three years observation. Hence, in statistically form showed that none of ACAR accrual portfolio formation in three years observation had significant different between ACAR low accrual firms and ACAR high accrual firms.

Table 1: The Independent t-test ACAR 2013-2015

ACCRUAL		N	Mean	Sig. (2-tailed)
ACAR_2013	HIGH	84	0.21415699	0.125
	LOW	84	0.06122155	
ACAR_2014	HIGH	84	-0.00179174	0.81
	LOW	84	-0.01727973	
ACAR_2015	HIGH	84	0.05717468	0.813
	LOW	84	0.04268571	
ACAR_3YEARS	HIGH	252	0.08984664	0.172
	LOW	252	0.02887584	

Source: Data processing

In addition, this research run the independent t-test for cumulated three years observation of high accrual firms and low accrual firms. The result showed that in 2013 – 2015, the ACAR mean of low accrual firms are lower than the ACAR mean of high accrual firms (0.02887584<0.08984664). Statistically, both ACAR low accrual firms and ACAR high accrual firms are not significant. Thus, during the observation period from 2013 -2015 in both high and low accruals firms is not inducing the existence of accrual anomaly.

For robustness check, this research also run the independent t-test for cumulative actual return whether to ensure the difference result toward the cumulative abnormal return and cumulative actual return based on accrual portfolio. Meanwhile, to ensure whether the pattern of accrual anomaly can be found toward the actual return, that the firms with high (low) accruals generate

lower (higher) of ACRR (Average Cumulative Realization Return). The result of the independent t-test of ACRR for each years and three years observation is shown in table 4.6.

In 2013, the ACRR means in high and low accrual firms are 0.30716779 and 0.17778092. In 2014, the value of ACRR mean 0.05291428 and 0.03742629 for high and low accruals firms. In 2015, the mean value of ACRR is 0.03742629 and 0.0017926 for high and low accrual firms. Meanwhile, in cumulative three years observation showed that the ACRR mean value of high accrual firms is 0.1325 and low accrual firms is 0.0723.

Table 2: The Independent t-test ACRR 2013-2015

ACCRUAL		N	Mean	Sig. (2-tailed)
ACRR_2013	High	84	0.30716779	0.135
	Low	84	0.17778092	
ACRR_2014	High	84	0.05291428	0.81
	Low	84	0.03742629	
ACRR_2015	High	84	0.03742629	0.62
	Low	84	0.0017926	
ACRR_3YEARS	High	252	0.1325	0.171
	Low	252	0.0723	

From the result of the independent t-test, it can be shown that during 2013-2015, the ACRR of low accrual firms is lower than the high accrual firms. Hence, in cumulated three years observation period also showed that the cumulative actual return on high accrual firms is higher than the cumulative actual return on low accrual firms. The accrual anomaly existence based on the ACRR portfolios cannot be proven during the observation period. In statistically, both ACRR low accrual firms and ACRR high accrual firms had significant different.

Discussion

The objective of this research is to examine the existence of accrual anomaly in Indonesia Stock Exchange over the period 2013-2015. The existence of accrual anomaly is detected in stock market if the ACAR low accrual is significantly higher than ACAR high accrual. Based on the independent t test for each year portfolio formation, the existence of accrual anomaly is not detected in 2013-2015 where the result is consistent showed that the ACAR low accrual are lower than the ACAR high accrual for each year. Furthermore, the independent t test also conducted for cumulated year of portfolio formation in three years, the result of ACAR of low accrual firms still lower than the ACAR of high accrual

firms during three years observation (0.02887584<0.08984664). In statistically, none of ACAR accrual portfolio formation in three years observation had significant different between ACAR low accrual firms and ACAR high accrual firms. This research showed that during the three years of observation period (2013-2015), the hypothesis testing of this research couldn't be proven and unable to detect the existence of accrual anomaly in Indonesia Stock Exchange.

This result may show different result from previous studies due to the characteristics of countries the research conducted, the different observation period and different technique that use to detect accrual anomaly. In line with previous studies that support our finding that do not detect the accrual anomaly is the result of Li et al. (2011) showed that they unable to detect the accrual anomaly in China's stock market, but after the researcher exclude the loss firm in the sample (earning distortion), the presence of accrual anomaly is detected in China Stock Market. Meanwhile, the finding in line with Ozkan and Kayali (2015), found that the existence of accrual anomaly in Borsa Istanbul after excluding the loss firms from the samples. The previous studies found that cannot detected the accrual anomaly but the accrual anomaly detected when they excluded the loss firms from the sample. This technique may generate different result if it's apply in Indonesia Stock Exchange.

Furthermore, Pincus et.al (2007) found that the accrual anomaly is more likely to occur in common law countries (U.S., Australia, Canada, and U.K.) rather than code law countries (Indonesia, Taiwan, Italy, etc.). The research found that the existence of accrual anomaly is more likely occur in the country that allow extensive use of accrual accounting, have a lower concentration of share ownership and stronger shareholder protection. From these findings, it might be not surprisingly if the existence of accrual anomaly is not detected in Indonesia Stock Exchange compare to U.S stock market due to the different characteristics in using accrual accounting.

Meanwhile, the result of this research also supports the previous study in Indonesia Stock Exchange even the observation period use in this research is different which is detected the accrual anomaly during 2013-2015. Aunilah and Ghofar (2015) unable to detect the existence of accrual anomaly in Indonesia Stock Exchange in 2002-2007 and Toha and Harahap (2012) unable to detect the accrual anomaly and found that the relation between accrual rate and abnormal return cannot be proven in 2005 and 2006. Thus, the research using the observation period before 2008 due to economic crisis happened in 2008.

In addition, this research also run the independent t-test for cumulative actual return, to ensure whether the accrual anomaly existence is also influence by the actual return. The ACRR portfolio for each year in 2013,2014,2015 is showed that the value of ACRR of low accrual firms is lower than high accrual firms. There is no negative relation between the accrual rates with the actual return. Hence, the cumulated three years observation showed the same result that the ACRR of low accrual firms is lower than high accrual firms (0.0723<0.1325). Thus, the presence of accrual anomaly cannot be proven using the ACRR for both

high and low accrual firms, it showed that ACRR of low accrual firms is lower than the ACRR of high accrual firms for all year's portfolio. Simply said that the investors have given a proportional portion for accrual in predicting the future earnings.

CONCLUSION AND RECOMMENDATION

Conclusion

This research attempted to examine the existence of accrual anomaly in Indonesia Stock Exchange over period 2013-2015. The proxy to detect the accrual anomaly in this research is use cumulative abnormal return, which sorted, based on the high accrual firms and low accrual firms in the portfolio. The high accrual firm and low accrual firm portfolios are calculated using independent t-test for each year and cumulated three years of observation period (2013,2014,2015). The existence of accrual anomaly can be detected if there is the negative relation between accrual portfolio and abnormal return, which the low accrual firms are generated higher ACAR than do high accrual firms.

Hence, this research also included ACRR based accrual portfolio, to ensure that whether the accrual anomaly existence is also influence by the actual return not only the abnormal return. So, the research run the independent t-test of ACRR based accrual portfolio for each year and cumulated three years of observation period (2013,2014,2015) as robustness check.

Based on the analysis and the result of this research, it can be concluded that the existence of accrual anomaly is not detected during the three years observation (2013 – 2015) using the ACAR based accrual portfolio and ACRR based accrual portfolio in Indonesia Stock Exchange. It shows that the investors are not mispriced and given a proportional portion for accrual in predicting the future earnings.

The results of this research also support the findings of the previous study of accrual anomaly in Indonesia Stock Exchange but the result is in different observation of period. Aunilah and Ghofar (2014) unable to detect the existence of accrual anomaly in Indonesia Stock Exchange during period 2002-2007 and Toha and Harahap (2012) cannot prove the existence of accrual anomaly in 2005 and 2006.

In addition, the result of this research is contrary with the result in U.S stock market where the accrual anomaly is detected consistent during thirty years (Lev & Nissim, 2005). This different result between Indonesia stock market and U.S stock market may cause by the different characteristics of both stock markets. Pincus et. al (2005) stated that the accrual anomaly is commonly detected in common law countries rather than code law countries. Shortly said that the accrual rate on common law countries (United States) higher than the code law countries (Indonesia).

As conclusion, the hypothesis testing of this research is not accepted. The existence of accrual anomaly is not detected and not proven significant during the observation period from 2013 – 2015 in Indonesia Stock Exchange. Thus, this research implied that the investors are not overpricing with stocks that have high accrual component and not underprice with stocks that have low accrual component, which investors cannot take advantage of accrual components to generate abnormal return. So that, the investment strategy proposed by Sloan (1996) to short (sell) high accrual stocks and long (buy) low accrual stocks are not suitable implemented by investors in Indonesia Stock Exchange. From the result above, the suitable investment strategy to be implemented for investors is to short (sell) low accruals stocks and long (buy) high accrual stocks in Indonesia Stock Exchange.

Recommendation

Based on the analysis and the findings of this research, the researcher would like to give several recommendations. Hopefully that it can give advantage toward the improvement of investor's decision and future researcher.

1. For investor, this research recommends that having knowledge regarding the influence of accrual toward stock return in the future can help the investors to minimize the earning prediction error so that investors can made appropriate decision making. In addition, based on the result of this research, it's suggested for the investors to implement the investment strategy, which to short (sell) low accrual stocks and long (buy) high accrual stocks in Indonesia Stock Exchange and hope that the stock will gain higher return in the future.
2. For future research, the researcher recommends to use a longer observation period to prove the existence of the accrual anomaly. Hence, the corporate event also considered in choosing the stock price variables so that the abnormal return can be more accurate even more the research classified the accrual based on discretionary and non-discretionary. In addition, the future research not merely examines the existence of accrual anomaly but also analyze the trigger factor that lead to the anomaly.

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