

# THE PREDICTABILITY OF PAST FIRMS' PERFORMANCE ON FUTURE CASH FLOWS

ความสามารถของข้อมูลผลการดำเนินงานในอดีตในการพยากรณ์กระแสเงินสดในอนาคต

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## Abstract

This research investigated the predictability of past financial performance on future cash flows and the effects of financial and non-financial factors on the predictability. The secondary data was collected from financial reports and SET data of Thai listed companies in Agro & food industry and Technology industry during the period 2005 to 2010. The statistical analysis was conducted with regression statistic method.

The findings revealed that the predictability of past financial performance were different between industries. The findings showed that earnings had higher predictability in Agro & food industry than operating cash flows, free cash flows and comprehensive income. On the other hand, it found that operating cash flows was higher predictability than the others in Technology industry. Considering the effects of financial and non-financial factors, the results revealed that firm size and market risk were significant effects on the predictability of past financial performance.

**Keywords:** future cash flows, earnings, comprehensive income, operating cash flows, free cash flows

## บทคัดย่อ

งานวิจัยนี้มีวัตถุประสงค์เพื่อศึกษาความสามารถในการพยากรณ์ของข้อมูลทางการเงินในอดีตในการพยากรณ์กระแสเงินสดในอนาคต และผลกระทบของปัจจัยที่เป็นตัวเงินและไม่เป็นตัวเงินต่อความสามารถในการพยากรณ์ โดยทำการเก็บรวบรวมข้อมูลจากรายงานทางการเงิน และข้อมูลของตลาดหลักทรัพย์แห่งประเทศไทยของบริษัทจดทะเบียนในกลุ่มอุตสาหกรรมเกษตรและอุตสาหกรรมอาหาร และกลุ่มอุตสาหกรรมเทคโนโลยี ระหว่างปี พ.ศ. 2548 ถึง 2553 สถิติที่ใช้ในการวิจัย คือ การวิเคราะห์ความถดถอย

ผลการศึกษาพบว่าความสามารถในการพยากรณ์ของข้อมูลทางการเงินในอดีตมีความแตกต่างกันในสองอุตสาหกรรม โดยในอุตสาหกรรมเกษตรและอุตสาหกรรมอาหาร กำไรมีความสามารถในการพยากรณ์กระแสเงินสดในอนาคตมากกว่ากระแสเงินสดจากการดำเนินงาน กระแสเงินสดอิสระ และกำไรขาดทุนเบ็ดเสร็จ ส่วนในกลุ่มอุตสาหกรรมเทคโนโลยี กระแสเงินสดจากการดำเนินงานมีความสามารถพยากรณ์สูงกว่าข้อมูลทางการเงินอื่น ในขณะที่ผลการศึกษาผลกระทบของปัจจัยที่เป็นตัวเงินและไม่เป็นตัวเงิน พบว่า ขนาดขององค์กร และความเสี่ยงทางตลาด

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เป็นปัจจัยส่งผลต่อความสามารถในการพยากรณ์อย่างมีสาระสำคัญ

**คำสำคัญ:** กระแสเงินสดในอนาคต กำไร กำไรขาดทุนเบ็ดเสร็จ กระแสเงินสดจากการดำเนินงาน กระแสเงินสดอิสระ

## Introduction

Many of investors, creditors and also management team need to forecast the ability to generate future organization performances. An important source for investors is financial analysis. They used financial information, operating cash flows, earnings including accrual components of the past financial performances to predict the future cash flows and earnings (Dechow, 1994).

For more two decade, some research results concluded that earnings had better predictive ability for future cash flows than cash flows (Greenberg et al., 1986; Dechow, 1994; Dechow et al., 1998; and Kim & Kross, 2005). On the other hand, many research results claimed that cash flows was better predictor than earnings for future cash flows prediction (Finger, 1994 and Barth et al., 2001)

Many previous researches had investigated the predictability of both earnings and cash flows. They could not conclude which one was better than the others. In addition, some research studies had shown that some financial and non-financial factors have effected with the firms' performance. Such as, Epstein & Manzoni (2004) described that firm size may had affected management system and internal control and had related to performance of organization.

There were studied in United States of America, United Kingdom, New Zealand, etc., and the results were inconsistent and proper for all countries and time period. The prior findings on prediction model of the future firms' performance did not consensus which earnings

or cash flows could be the better predictor. And some research's study mentioned to other financial and non-financial affected and related to performance of the organization.

Because of rational above, this research aimed to study which factors had better ability to predict future cash flows. The future firms' performance prediction should be helpful in economic decision making, for internal purpose manager should forecast and prepare strategy for organizational sustainability as well as investors should appraise risks of their investment.

The research's questions were two: which factors have ability to predict future cash flows?; and Are the financial and non-financial factors had affected on future cash flows prediction?

## Literature reviews

### Past financial performance

In this study, the past financial performances defined to two kinds of financial performances; earnings and cash flows.

### Earnings

IASB (2008) announced IAS1 presentation financial reporting mentioned on profit as a tool for measuring performance or essential for other measurer for example, return on investment (ROI), earnings per share. Profit or Earning was calculated from revenue and expense.

Since 2008, instead of IAS1 revised version 2007, an organization should present other *comprehensive income* which consisted of gains

and losses from revaluation values, employee benefits, financial instrument remeasuring, foreign currency translation, and hedging.

Meanwhile the future values were more dependent on expected future performance (Epstein & Manzoni, 2004). Some research found that earning had better predictive ability for future cash flows than cash flows (Greenberg et al., 1986; Dechow, 1994; Dechow et al., 1998 and Kim & Kross, 2005).

Kanagaretnam, Mathieu & Shehata (2009) studied predictability comparing between earnings and comprehensive income, the results showed that comprehensive income was a better predictor for future cash flows. On other hand, Dhaliwal, Subramyam & Trezevant (1999) stated that there had no evidence to conclude neither net income nor comprehensive income had predictability than the either one.

### Cash Flows

The another financial performance, cash flows was stated in IAS7 (IASB, 2010) that cash flows was a tool for assessing and comparing of operating performance of entities, because of elimination effect of different accounting policy, and cash flows also used to assess profitability and future cash flows.

*Operating Cash flows (CFO)* was mostly used for performance predicting. Many studies found that CFO had more predictive ability for future cash flows than earnings (Finger, 1994 and Barth et al., 2001). However, Finger (1994) found that CFO was better for future cash flows prediction in short term while mixed cash flows and earnings were better in long term prediction.

Free Cash flows (FCF) has been considered for firms' performance evaluation and future valued of organization prediction. The work of McLaughlin, Safieddinge & Vasudevan, (1996)

found that free cash flows was associated with profitability, but Nunez (2013) claimed that predictability was not different among FCF, CFO and earnings.

### Financial and Non-financial factors

The others factors affected to the firm performances were stated in many previous research. Both financial and non-financial factors reflected to the performance of organization. Financial measurements have been used to evaluate business performance. In 1980 decade, non-financial factors were highlighted to fulfill business management due to insufficient financial measurement (Johnson & Kaplan, 1987). Therefore, various researcher constructed measurement tools such as; the balance scorecard (Kaplan & Norton, 1992), the performance prism (Kennerley & Neely, 2000), to balancing financial and non-financial measured in complex business firms. Hence, this research tended to study the factors both financial and non-financial which associated with prediction future firms' performance. Factors in this study focusing were as follow; financial consisted of firm size and firm growth, while non-financial composed of market risk and audit quality.

### Firm Size

Contingency Theory stated that firm size may affect the management system and organization control (Epstein & Manzoni, 2004). Therefore firms' performance should be different decreasing or increasing depended on size of entities, because larger organizations should have better controlling system. Firm size

could measure by market value of equity (Barth, Beaver & Hand, 1999 and Charitou, Clubb & Andreou, 2001).

### **Firm Growth**

Prior studies found that firm growth proxy related to future firms' performance. Barth et al. (1999) and Charitou et al. (2001) found that firm growth rate of firms should have influenced to performance, huge or little growth rate should have made different impacts. Cooper et al. (2008) found that total asset growth rate has implication for future performance.

### **Market Risk**

Neely (2007) stated that investment should be riskiness, investors should concentrate on risks of investment which represent by 'beta'. Security commission displays risk of each company in public to inform investors before making decision. Blitz, Huij & Matens (2011) found that lower beta had correlated with future losses. Schwerdt & Wendland (2010) mentioned that a higher risk (mean a higher beta) could be return the higher rewards.

Beaver, Kettler & Scholes (1970) stated that market risk had relationship with financial measurers; firms with high market risk were more likely to have high future performance in short term.

### **Audit Quality**

Agency Theory has been one of problem between principals and managers, due to conflict goals of owners and agents and it's difficult to verify the agent's doing (Jensen & Meckling, 1976); Eisenhardt (1989) and Guan, He & Yang (2006) stated that financial statement should be decorated by management in discretionary expenses. Some evidences stated that there were quality differences among audit firms (DeAngelo, 1981; Francis et al., 1999 and

Doyle et al., 2007).

Chung et al., (2003) measured audit quality in two dimensions; first was Big6 auditors and the other was length of auditor tenure. Auditor change was affected to earning quality, because the same auditors should had more experiences than the new one. On the other hand, the new auditor team would spent more time to study about characteristics of firms so it associated to lower audit quality (Doyle et al., 2007 and Francis et al., 1999).

## **Research design**

### **Population**

This research selected group of industries from the Stock Exchange of Thailand (SET). The SET classified listed companies into 8 industries. This research focused only on Agro & food industry (AGRO) and Technology industry (TECH).

AGRO consisted of 41 companies such as 15 companies in agribusiness sector plus 26 companies in food & beverage sector. TECH comprised of 38 companies; divided to 11 companies in electronic components and 27 firms in information & communication technology sector.

TECH was an innovation and high development in technical and equipment, whilst AGRO was not rapidly change in manufacturing process. The different backgrounds between two industries were interested to study about the factors that relative to their performances. Which are the better predictability factors to each industry?

### **Data Collection**

The secondary data was collected from SET during 2005 to 2010 in yearly basis. The accounting data, earnings, comprehensive

income, operating cash flows, free cash flows firm growth and auditor quality were collected from financial reports displayed on SET website. The market risk and market value of equity were collected from SETSMART (SET Market Analysis and Reporting Tool), which prepared by Stock Exchange of Thailand.

### Data Processing and Analysis

Data Processing started with screening the completion of data, due to some data missing and some firm listed in SET after 2005. This research studies the predictability of accounting information for one, two and three-year-ahead. There were 190 firm-years for AGRO and 156

firm-years for TECH.

Proper statistics were considered to apply in this research, such as, descriptive and inference statistics, as follows: simple regression statistic was used to analyze the predictability of each financial information factor. Whilst, the multiple regression analysis was used to analyze the predictive ability of past financial information with relevant financial and non-financial factors for future cash flows prediction. According to the literature review, the model for testing the predictability of past financial information are as follow:

$$CFO_{i,t+n} = \beta_0 + \beta_1 EARN_{i,t} + \varepsilon_{i,t} \quad \text{Model 1}$$

$$CFO_{i,t+n} = \beta_0 + \beta_1 CI_{i,t} + \varepsilon_{i,t} \quad \text{Model 2}$$

$$CFO_{i,t+n} = \beta_0 + \beta_1 CFO_{i,t} + \varepsilon_{i,t} \quad \text{Model 3}$$

$$CFO_{i,t+n} = \beta_0 + \beta_1 FCF_{i,t} + \varepsilon_{i,t} \quad \text{Model 4}$$

$$CFO_{i,t+n} = \beta_0 + \beta_1 EARN_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 GROWTH_{i,t} + \beta_4 Big4_{i,t} + \beta_5 AuditC_{i,t} + \beta_6 RISK_{i,t} + \varepsilon_{i,t} \quad \text{Model 5}$$

$$CFO_{i,t+n} = \beta_0 + \beta_1 CI_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 GROWTH_{i,t} + \beta_4 Big4_{i,t} + \beta_5 AuditC_{i,t} + \beta_6 RISK_{i,t} + \varepsilon_{i,t} \quad \text{Model 6}$$

$$CFO_{i,t+n} = \beta_0 + \beta_1 CFO_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 GROWTH_{i,t} + \beta_4 Big4_{i,t} + \beta_5 AuditC_{i,t} + \beta_6 RISK_{i,t} + \varepsilon_{i,t} \quad \text{Model 7}$$

$$CFO_{i,t+n} = \beta_0 + \beta_1 FCF_{i,t} + \beta_2 SIZE_{i,t} + \beta_3 GROWTH_{i,t} + \beta_4 Big4_{i,t} + \beta_5 AuditC_{i,t} + \beta_6 RISK_{i,t} + \varepsilon_{i,t} \quad \text{Model 8}$$

where:

$CFO_{i,t+n}$  = Operating cash flows of company  $i$  in the one, two or three-year-ahead of year  $t$  (predicted year),

$EARN_{i,t}$  = Earnings before interest and tax of company  $i$  in the year  $t$ ,

$SIZE_{i,t}$  = Market value of equity of company  $i$  at the ending of the fiscal year  $t$ ;

$GROWTH_{i,t}$  = Changed in total assets of company  $i$  computed from total assets at the ending of fiscal year  $t$  minus total assets at the ending of fiscal year  $t-1$  divide by total assets at the ending of fiscal year  $t$ ;

- Big4<sub>*i,t*</sub> = dummy variable of audit firm of company *i* in year *t*, code 1 if audit by Big 4, 0 otherwise;
- AuditC<sub>*i,t*</sub> = changed audit firm of company *i* compare between year *t* and year *t-1*, code 1 if change audit firm, 0 otherwise;
- RISK<sub>*i,t*</sub> = Market risk, collected from beta value of company *i* at the ending fiscal of year *t*;
- CI<sub>*i,t*</sub> = Comprehensive Income of company *i* in year *t*;
- CFO<sub>*i,t*</sub> = Operating cash flows of company *i* in year *t*;
- FCF<sub>*i,t*</sub> = Free cash flows of company *i* in year *t*.

Due to the multiple regression technique had been used in many previous prediction researches (Greenberg et al., 1986; Dechow, 1994; Dechow et al., 1998; Barth et al., 2001; Kim & Kross, 2005; Kanagaretnam et al., 2009 and Nunez, 2013).

The conditions of regression analysis were tested; including interval or ratio variables, normal distribution of variables and error, Heteroscedastic problem, auto-correlation problem and multicollinearity problem (Vanichbuncha, 2010).

## Empirical results

### Descriptive Statistics

The descriptive statistics were summarized in term of mean, standard deviation, minimum and maximum of each variable to make it easier to understand. EARN was earning before interest and tax. CFO was operating cash flows, CI was comprehensive income, FCF was free cash flows. SIZE was natural logarithm of market value, GROWTH was ratio of increasing or decreasing of total assets. Big4 was high quality audit firm. AuditC was the change of audit firm, and RISK was market beta value.

The earnings of organization, EARN of AGRO ranged from -273 million baht to 18,070 million

baht. On the other hand, EARN of TECH ranged from -10,906 to 15,565 million baht. The other type of earnings in this study, CI of AGRO ranged between -354 to 10,055 million baht while CI of TECH ranged from -4,294 to 9,325 million baht. Comparison both type of earnings, EARN and CI, the information shows that the ranged of earnings of TECH industry is more width than AGRO.

The performance measured from CFO of AGRO industry ranged between -4,378 to 22,340 million baht, while TECH industry ranged from -1,190 to 23,582 million baht. The FCF of AGRO industry, FCF ranges between -5,173 to 18,073 baht, while FCF of TECH industry ranges from -10,141 to 12,969 million baht. Comparison both types of cash flows, it showed that TECH companies had invested in capital expenditure in big volume of money.

Consideration of SIZE in AGRO ranged between 16.21 to 25.17, and TECH industry was between 18.75 to 25.57. While GROWTH, the data shows the proportion change of total asset of AGRO was -0.96 to 28.93, while TECH had proportion change between -0.70 to 1.15. The mean of AGRO and TECH were 0.24 and 0.05, respectively. That meant growth rate of listed companies in AGRO were more increased in

total assets than TECH.

The RISK estimated from beta calculated by SET for AGRO and TECH are between -0.54 to 2.4 and between -0.06 to 2.03 respectively. The results showed that AGRO listed companies

choose Big4 audit firm approximate 75 percent as same as TECH (74 percent) and both industries changes audit firm around 7-8 percent per year.

**Table 1** the predictability of past financial performance for future cash flows

	AGRO			TECH		
	1-year-ahead	2-year-ahead	3-year-ahead	1-year-ahead	2-year-ahead	3-year-ahead
Constant	113,655,345	50,429,919	-43,338,770			
EARN <sub>t</sub>	0.856 *	1.137 *	1.543 *			
Adjusted R <sup>2</sup>	<b>0.470</b>	<b>0.484</b>	<b>0.462</b>			
F	200.208 *	209.848 *	190.734 *			
Constant	106,654,863	10,620,228				
CI <sub>t</sub>	1.184 *	1.707 *				
Adjusted R <sup>2</sup>	0.419	0.473				
F	163.463 *	201.000 *				
Constant	245,920,529	309,142,494 *	156,684,018	184,737,070	263,341,318	147,127,416
CFO <sub>t</sub>	0.793 *	0.822 *	1.540 *	0.903 *	0.972 *	1.061 *
Adjusted R <sup>2</sup>	0.409	0.447	0.426	<b>0.719</b>	<b>0.608</b>	<b>0.664</b>
F	156.752 *	181.455 *	165.333 *	479.888 *	277.247 *	283.715 *
Constant				988,099,119 *		
FCF <sub>t</sub>				0.956 *		
Adjusted R <sup>2</sup>				0.414		
F				133.223 *		

Note: only the model met the regression condition

“\*” implied statistic significant level at 0.05.

### The Predictability of Past Financial Performance

The testing of predictability of each past financial performance as mentioned in previous research. The hypothesis testing for the predictability of past financial performance was as follow;

*H1 Past financial performances have predictability for future cash flows.*

The results of simple regression analysis forecasted future cash flows as show in Table 1. The predictability of past financial performance

of AGRO by using regression model, showed that EARN was the best predictor for one, two and three-year-ahead cash flows, CI had ability to predict one and two-year-ahead cash flows. CFO also had predictability for one and three-year-ahead cash flows.

For notification in TECH found that CFO had predictability for one, two and three-year ahead in highly value (adj. R<sup>2</sup> = 71.9%, 60.8% and 66.4%, respectively) whilst FCF had ability to predict one-year-ahead cash flows only (adj. R<sup>2</sup> = 41.4%).



The considering of predictability for future cash flows in each industry found that in AGRO EARN was the highest predictability for one (adj.  $R^2 = 47.0\%$ ), two (adj.  $R^2 = 48.4\%$ ) and three-year-ahead cash flows (adj.  $R^2 = 46.2\%$ ). Focusing on TECH, the results showed that CFO was the highest predictability for one (adj.  $R^2 = 71.9\%$ ), two (adj.  $R^2 = 60.8\%$ ) and three-year-ahead cash flows (adj.  $R^2 = 66.4\%$ ).

### **The effects of financial and non-financial factors**

The previous research claimed that many condition factors affected to the firms' performances. For this study, four control variables were used to estimate the future firms' performance. A multiple regression was applied to test the relationship among the variable,  $t$  statistic was used to confirm the effective of these variable, while  $F$  statistic was assigned the fit of model and  $Adj. R^2$  could be explained the capable of predictability for future firms' performance. The hypothesis to test the effects of financial and non-financial factors was as follow;

*H2. Financial and non-financial factors have affected predictability in predicting future firm's performances.*

This study found that SIZE was the significant factor in prediction model with positive sign in

TECH. It was to confirmed the various researched that different firm size related to different operation (Epstein & Manzoni, 2004; Ohlson, 1980; Barth et al., 1999 and Charitou et al., 2001). However, in AGRO, size was significant in the model predicted with cash flows only.

The RISK was the significant affected to the prediction models, it found that the effect of market risk was on the prediction model in TECH especially the past earnings prediction models with positive sign. It was congruent with the prior findings of Neely (2007) and Blitz et al. (2011) that higher market risk had relationship with accounting measurement. Comparable two industries, due to the fasten changes of Hi-technology (SIPA & NECTEC, 2010) influence to higher risk in TECH.

The last factor influent to predictability of past financial performances was auditor change. Chung et al. (2003) mentioned on quality of audit had affected on cash flows management to decrease agency cost. In this research, auditor change reflected to only three models in TECH, so it could not absolute conclude the effect of auditor change to overall results. However, the descriptive data showed that listed companies in TECH changed audit firms on the recent year in high volumes than the earlier. While Big 4 audit firm was not affect to any models in both industries.



**Table 2** The effects of financial and non-financial factors on the predictability for future cash flow

	AGRO			TECH		
	1-year-ahead	2-year-ahead	3-year-ahead	1-year-ahead	2-year-ahead	3-year-ahead
(Constant)	-2,089,092,178	-3,145,752,338	-2,241,348,209 *	-9,060,843,817 *	-11,232,908,665 *	-16,300,922,743 *
EARN <sub>t</sub>	0.799 *	1.077 *	0.778 *	1.071 *	0.920 *	0.682 *
SIZE <sub>t</sub>	95,529,412	149,149,968	107,936,026	400,912,102 *	490,699,986 *	764,368,238 *
GROWTH <sub>t</sub>	32,117,461	2,512,582	-243,866,394	-216,978,041	-425,098,252	-1,959,656,110
RISK <sub>t</sub>	71,483,072	-78,731,230	225,084,126	1,352,599,468 *	1,363,928,545 *	1,195,752,720 *
Big4 <sub>t</sub>	282,403,130	206,691,587	155,259,264	-63,487,285	41,346,911	-366,736,105
AUDITC <sub>t</sub>	99,639,738	218,913,927	98,273,060	-266,390,833	1,738,730,283 *	-401,913,417
Adj. R <sup>2</sup>	<b>0.390</b>	<b>0.377</b>	<b>0.270</b>	0.617	0.550	0.425
F	21.150 *	19.893 *	12.034 *	42.376 *	30.955 *	14.420 *
(Constant)	-2,170,265,618	-743,173,863	-4,717,858,704 *	-22,542,017,214 *		-30,628,591,280 *
Cl <sub>t-n</sub>	1.152 *	1.936 *	0.535 *	0.754 *		-0.047
SIZE <sub>t</sub>	99,454,385	30,388,469	232,789,931 *	1,033,575,359 *		1,466,743,194 *
GROWTH <sub>t</sub>	21,630,803	-20,048,310	-259,305,767	-721,437,472		-2,237,523,197
RISK <sub>t</sub>	118,734,347	-65,374,712	219,740,414	2,203,073,309 *		921,405,713
Big4 <sub>t</sub>	258,193,958	168,330,643	146,500,031	-44,937,071		-324,519,429
AUDITC <sub>t</sub>	109,622,720	202,624,788	68,664,230	-590,976,469		-632,899,161
Adj. R <sup>2</sup>	0.357	0.387	0.215	0.471		0.353
F	18.484 *	20.638 *	9.185 *	23.873 *		10.933 *
(Constant)	-5,677,674,940 *	-7,828,416,153 *	-8,460,820,339 *	-10,854,054,114 *	-13,509,628,171 *	-10,907,546,475 *
CFO <sub>t</sub>	0.537 *	0.896 *	-0.113	0.833 *	0.777 *	0.895 *
SIZE <sub>t</sub>	280,555,863 *	403,583,943 *	418,333,355 *	521,706,742 *	625,210,034 *	532,350,984 *
GROWTH <sub>t</sub>	37,144,981	-5,425,538	-278,670,548	808,494,683	969,875,450	-329,575,533
RISK <sub>t</sub>	84,614,511	-143,457,601	201,500,862	-8,581,635	197,706,335	-284,704,382
Big4 <sub>t</sub>	110,917,853	-312,197,788	179,866,073	-114,031,434	132,136,294	-102,707,700
AUDITC <sub>t</sub>	31,156,148	12,191,390	46,250,639	172,005,220	2,203,517,954 *	-141,536,149
Adj. R <sup>2</sup>	0.365	<b>0.389</b>	0.196	<b>0.710</b>	<b>0.654</b>	<b>0.654</b>
F	19.097 *	20.882 *	8.253 *	63.786 *	47.405 *	35.397 *
(Constant)	-10,654,059,248 *		-6,363,395,743 *	-26,457,693,782 *	-28,011,888,262.708 *	-28,105,501,073 *
FCF <sub>t-n</sub>	0.297 *		0.375 *	0.762 *	0.700 *	0.828 *
SIZE <sub>t</sub>	523,891,093 *		323,023,264 *	1,242,174,388 *	1,305,431,450.263 *	1,336,857,133 *
GROWTH <sub>t</sub>	42,541,751		-129,299,168	1,049,806,562	823,398,273.627	-309,516,702
RISK <sub>t</sub>	235,322,729		262,518,056	1,327,593,705 *	1,048,605,503.980 *	740,077,308
Big4 <sub>t</sub>	159,096,636		-46,334,281	-203,944,925	32,069,320.655	-317,670,722
AUDITC <sub>t</sub>	145,942,142		-21,039,973	-100,618,288	1,993,413,000.403 *	-272,197,218
Adj. R <sup>2</sup>	0.231		0.233	0.524	0.474	0.488
F	10.464 *		10.051 *	29.222 *	23.037 *	18.322 *

Note: only the model met the regression condition

“\*” implied statistic significant level at 0.05.

The results were incongruent with the prior researcher who stated that firms perceived that Big4 had more conservative and caution than non-Big4 (Francis et al. (1999). In other word,

it should claimed that listed companies in Technology and Agro & food industries in SET perceived no different with the quality Big4 or non-Big4 audit firm in Thailand.

Prior research found that growth proxy related to firms' performance. Cooper et al. (2008) found that total asset growth rate had implication for future performance. Consequently of this research findings, it showed that no evidences to confirm the prior findings.

Comparison of the results from simple and multiple regression, the appropriated predictor from this study for future cash flows in AGRO was earnings, whilst in TECH was CFO as shown in Table 3.

**Table 3** The appropriated prediction model

Future Cash Flows	AGRO	TECH
1-year-ahead	$CFO_{t+1} = 113,655,345 + 0.856 EARN_t + e$	$CFO_{t+1} = 184,737,070 + 0.903 CFO_t + e$
2-year-ahead	$CFO_{t+2} = 50,429,919 + 1.137 EARN_t + e$	$CFO_{t+2} = -13,509,628,171 + 0.777 CFO_t + 625,210,034$ $SIZE_t + 969,875,450 GROWTH_t +$ $197,706,335 RISK_t + 132,136,294 Big4_t +$ $2,203,517,954 AUDITC_t + e$
3-year-ahead	$CFO_{t+3} = -43,338,770 + 1.543 EARN_t + e$	$CFO_{t+3} = 147,127,416 + 1.061CFO_t + e$

In conclusion, the overall results showed that the past EARN was the appropriated predictor for the future cash flows prediction in AGRO. On the other hand, past CFO was the appropriated predictor in TECH. Therefore, the prediction for two-year-ahead cash flows in TECH that financial and non-financial factors were substantial affected the predictability of past CFO.

## Conclusion & Discussion

The results differenced of testing the predictability of past earnings and past cash flows for future cash flows were in selected industries. In TECH, CFO was the best predictor in predicting one, two and three-year-ahead cash flows. The results support the most prior findings, Finger (1994) and Barth et al. (2001), that past CFO had more predictive ability for future cash flows than past earnings.

On the other hand, the findings in AGRO

showed opposite results the past earning was superior than past cash flows. This results supported the evidences of Grennberg (1986); Dechow (1994); Dechow et.al. (1998) and Kim & Kross (2005) who stated that earnings had more predictability than cash flows.

Consequence of testing for predictability of past financial performance, the results showed that in TECH, CFO had best predictability for one, two and three-year-ahead cash flows. The addition of finance and non-finance factors increase predictability of CFO in some prediction models and the power of predictability was best in the one-year-ahead prediction. On the other hand, the study found that in AGRO, earnings was the best predictor in all lag year predicted, but the best predictability was two-year-ahead cash flows predicting.

Hence, the statistic methodology in this study was regression statistic method; therefore, some models were not conformed to the

conditions of regression even though there were high relations with the dependent variables. According to the mismatch to the regression statistic conditions, those models were excluded from the research findings.

### Implication and Recommendation

Consideration of TECH industry, the best predictor to predict future cash flows was CFO. According to the mention of IASB (2010) that cash flows was a tool for assessing future firms' performance because of elimination effect of different accounting policy, however, that claim wasn't true in all industries. Although past cash flows suitable for future cash flows prediction in TECH, in contrast, it was not fit for AGRO.

The future firms' performance prediction should be helpful in economic decision making, for internal purpose manager should forecasted and prepared strategy for organizational sustainability as well as investors should appraised risks of their investments. According to the research findings, it showed that the different ability of past earnings and past cash flows to predict future firms' performances in AGRO and TECH. The evidences from the study suggested the appropriated future firms' performances prediction in each industry was predicted by different past financial performances. The appropriated predictors should be investigated in other industries to be useful in planning and decision making.

The factors affected to ability to predict future firms performance, the results revealed to firm size in term of market value of equity. Market risk was the other significant factors affected to the predict-ability of past financial performance. Notification of the two significant factors was distributed by SET. They were helpful for investor to access the public information.

### Future Research

Consequence of the differential of predictability in diverge industry, the recommendation for future research to investigate prediction model with appropriated past financial performance (earnings or cash flows) in other industries and non-listed companies. For internal management purpose, some information was not disclosed for external user such as innovation expenses, research and development expenses, which could affect to the future performance. The research could be conduct to formulate prediction model for internal usage.

According to the most statistics using in prior research, regression was frequently used. This research also selected regression statistic, however, some evidences were not conformed to the conditions. The future research could apply with other statistic method for conduct the prediction model such as SEM that could investigated the direct and indirect effects.

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