Accounting Characteristics and Performance of the Thai Value and Growth Stocks

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Abstract

This study examinesthe accounting characteristics of value and growth stock firms in the Thai capital market and examines whether there is consistency between the value perceived by investors and the accounting performances. This study uses price-to-earnings ratios (P/E) and price-to-book value ratios (P/BV) to identify the value and growth stocks andcompares theperformance of the two groups. The performance measures include earnings and cash flows performance, profitability ratios, and solvency ratio. Based on the P/BV classification, growth stock firms are firms with relatively higher operating cash inflows and higher cash outflows from investing activities. Growth stock firms are more efficient in asset utilization, more profitable, better utilize their invested capital and more aggressive in using debt financing. These characteristics are in line with the fundamental analysis. However, the P/E portfolios provide different results. Whether these two ratios capture different phenomenon is therefore an issue needed to bereconciled.

Keywords: Accounting Performance, Thai value and growth stocks, Profitability, Solvency

1.Introduction

1.1 Statement of the Problem

Finance literatures classify stocks based on its future growth opportunity as value stocks and growth stocks. Although there are no official definitions for value and growth stocks, Chahine (2008) stated that the growth stock is often referred to as "stocks of firms that have many positive net present value opportunities"and is expected to show above-average capital appreciation in the future. Chahine (2008) also referred to Besley and Brigham (2001) which describes the value stock as "a stock of a company whose fundamental information indicates that the true value of the company is higher than the stock price". Several studies examine the performance of value versus growth stocks in different time periods. The findings are inconclusive. WhileBeneda (2002) finds that growth stocks outperform the value stock in the long run,Chahine (2008) finds that the value stocks with a higher earnings growth outperform growth stock with higher earnings growth. The results show the empirical evidence in more developed capital markets such as in the US or the European markets. There is no evidence that these results are applicable to the emerging capital market such as the Stock Exchange of Thailand (SET).

The Thai stock markets have drawn foreign investors' attentions during the last decades. The total trading volume of the foreign investors in the Stock Exchange of Thailand (SET) and the Market for Alternative Investment (MAI) has grown significantly. The buying volume grew from 280,785.1 million baht in 2000 to 1,951,698 million baht in 2012, whereas the selling volume increases from 313,825.7 million baht to 1,875,309 million baht during the same period. It is interesting to see whether the investors can generalize the empirical evidence in the developed capital market to help them make good investment decisions in an emerging market like Thailand.

The performance measures often used in the prior studies are stock returns which are market-based performance. This study is different from prior research in such a way that it looks at the value stock and growth stock from accounting viewpoint. Rather than investigating the portfolio returns from investment in these stocks, this study focuses on the accounting performance of value and growth stock firms.

1.2 Objectives

This study aims to reconcile views perceived by investors and the accounting view reflected from the financial statement information. The objectives of the study are as follows. First, this study examines the accounting characteristics and performance of the value and growth stocks.

Second, this study examines whether there are significant differences in these performances between the two groups. The results provide evidence of the consistency between value perceived by the market and the value drawn from the fundamental analysis.

1.3 Scope of the study

This study compares the accounting performance of the value and growth stocks listed in the Stock Exchange of Thailand (SET) and the Market for Alternative investment (MAI) during 2010 and 2011. The accounting performance measures include earnings based performance, cash flows performance, profitability and solvency ratio. In addition, the study also explores return index and price index performance of the two groups.

1.4 Benefits of the study

The results can provide better understanding to the investors and other stakeholders. Investors in the Thai capital market can use the results to make effective investment decision. The results are also useful to the listed companies to understand the investor's expectation on the stocks. The overall results help confirm whether the characteristics of these stocks in the Thai capital markets are similar to those in the relatively more developed market. These results confirm if the evidences from prior research are not applicable to the Thai capital market.

1.5 Literature Review

1.5.1   Financial views on the performance of value and growth stocks

Finance research usually focuses on the portfolio return of the value and growth stocks and the evidences from prior research are inconclusive. Chahine (2008) refers to Zarowin (1990) that growth stock firms are firms having sales and earnings growth rates that exceed the industry average. Beneda (2002) proposes that growth stock should outperform other stocks in the long run. However, there are prior studies found that the value stocks outperform growth stocks during 1956 to 1971 (Basu, 1977).

Johnson, Fiore and Zuber (1989) refers to several studies that inspire their research. They mentionBasu (1977) findings that the risks-adjusted rates of return of low P/E stocks (value stock) exceed those of higher P/E stocks (growth stock), and refer to Brown, Kleidon, and Marsh (1983), Keim (1983), Reinganum (1983) and Roll (1981) that all of them confirm the results found in Basu (1977). The results support the investment strategy of buying stocks having low P/E ratios to earn excessive high risk-adjusted rates of return. However, Jones (1987) provides conflicting evidence that low price-to-earnings stocks earn low risk-adjusted rates than those following the Standard and Poor's 500 and a number of other investment strategies. The conflicting findings motivate Johnson, Fiore and Zuber to update Basu's study to determine if low P/E stocks are still good investments during 1979 to 1985. They follow Basu's approach and rank each stock from the lowest to the highest reciprocal of its P/E ratio. This approach rank negative earnings firms in the highest P/E groups. Next, they form five equal-sized quintile portfolios. Because the fifth portfolio includes companies with negative earnings, they then form the sixth portfolio by excluding companies with negative earnings. The results show that the low P/E portfolio and the high P/E portfolio with negative earnings earn the lowest average monthly rates of return and also below the monthly risk-free rate. The high P/E portfolio without negative earnings companies earns the highest average return. The results found seem to contradict with the one obtained from Basu (1977) in which low P/E portfolios yield the higher average returns.

In addition to using P/E ratio to represent growth and value stocks, some prior studies use book-to-market (B/MV) ratios. Harris and Marston (1994) investigate the portfolio return classified by high and low B/MV and high and low growth of long-term earnings forecast. Then two portfolios strategies are formed, which is the value strategies and the growth strategies. The growth stocks are those with low B/MV or high earning growth, while the value stocks are those with high B/MV or low earning growth. The B/MV is measured as the book value of common equity divided by the market value of common equity based on the closing price of the prior month to ensure that data is available to investors as of a given month. The growth variable is measured by the mean of financial analysts' forecast of long-term (five year) growth in earnings per share. The results indicate that the value-based strategy outperforms the growth strategies and the performance is driven by the B/MV ratio not growth. Further, the study also examines portfolio strategies looking at B/MV and growth simultaneously. The results show that the B/MV effect across all three growth categories (high, medium and low), while investing in low-versus high growth stocks offer no consistent return advantage. The lack of return advantage to spread based solely on growth forecasts suggests that market mispricing of expected growth is not sufficient to explain the B/MV effect.

Growth stocks are found to outperform value stocks over the long run. Beneda (2002) examines the returns of growth stocks (or stock with high P/E ratio), and value stocks over the long period, up to 18 years. The study period covers from the end of 1983 through November 2001. The portfolio formation period is from 1983 to 1987. For each of the five years of portfolio formation period, market value, P/E ratio, stock price and the standard industrial classification (SIC) code are obtained from the Compustat Industrial Files. Annual stock price and cash dividend per share are obtained for each of the years from the portfolio formation date to November 2001. All stock price and dividend per share are adjusted for stock splits and stock dividends. For each of the five years of portfolio formation (1983-1987), the sample of firms is ranked by P/E ratio into three group, value stocks, middle stocks, and growth stocks. The value stocks include 20 percent of the firms with lowest P/E ratios, whereas the growth stocks include 20 percent of the firms with the top P/E ratio. The remaining firms are included in the middle group. The results show that the five-year returns of the value stocks (low P/E ratios) exceed those of growth stocks (high P/E ratios). However, over the long periods, up to 18 years, the average return of growth stocks outperforms that of value stocks. At the tenth year after portfolio formation, the growth stocks have outperformed the value stocks for all portfolio formation, except 1987. At the 14th year, the growth stocks have outperformed the value stocks for all five of the portfolio formation years. The results imply that investors perceive that P/E ratios reflect the future growth opportunities and if investors are interested in holding their portfolios over the long term, including growth stocks into their portfolios may enhance their long-term performance.

Chahine (2008) refers to the findings from prior studies that a value stocks outperform the growth stocks and tries to investigate whether these strategies are sensitive to earnings growth level. The empirical tests are conducted based on returns strategy and asset pricing analysis. The study is conducted in the Euro zone from 1988 through 2003. The results, after controlling for Fama and French (1993) risk factors shows that a value strategy with a high earnings growth rate outperform both value and growth strategies. The results indicate that earnings growth is a significant factor in determining the performance of value versus growth portfolios.

1.5.2   Using Accounting Information to predict stock returns.

There are several evidences that accounting information is useful in predicting stock returns. Ou and Penman (1989) develops the computerized model based on financial statement information to predict the probability to increase (or decrease) in future earnings, called *Pr* value. Rather than selecting the variables based on any fundamental analysis or financial statement analysis concepts, the researchers use statistic procedures to select the variables included in the model. The way mentioned as "let the data speaks". The study finds that using the predicted value to make investment decision could yield the abnormal return. Ou (1990) also finds nonearnings accounting numbers have information content. They could be used as earnings predictors to make appropriate investment decision.

Kim, Lipka, and Sami (2012) studies the ability of three accounting measures including accounting earnings, operating cash flows and working capital from operations in predicting portfolio performance. The study aims to provide an answer on which accounting measures (earnings or cash flows in particular) is more useful to investor in selecting companies. The usefulness is defined as the relative performance of the portfolio returns. The study uses and investor perspective by building on Basu's (1977) investment trading strategy, using price earnings ratios for portfolio selections. The Basu trading strategy is effecting for all three measures and the excess returns are observed for all three measures, even when controlled for risk and for low priced stocks. However, the results indicate that earnings portfolios do not dominate working capital or cash flow portfolios. This is contradictory to prior research that document that accrual based accounting earnings is a relatively more useful measure of operating performance (Dechow 1994, Biddle et al. 1995, Francis et al. 2003, Callen and Segal 2004.) The results show that the average returns of the lowest PE ratio portfolios outperform the rest of the market for accounting earnings, operating cash flows, and working capital from operations. The results also show that the average returns for the lowest PE ratio cash flow stock outperform accounting earnings and working capital. In other words, the superior performance of low PE ratio stocks hold when working capital and cash flows are used instead of accounting earnings. The results hold after controlling for risk (size adjusted) and for the effect of low priced stock.
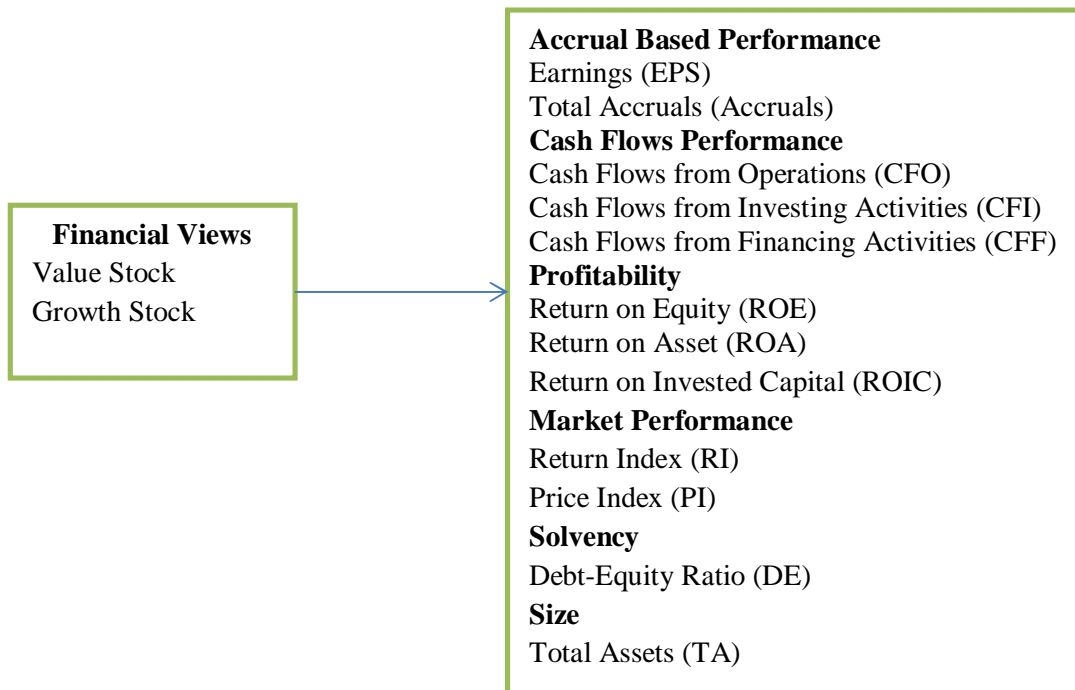
In conclusion, finance and accounting literature provides evidences of the studies of investment returns.

Whereas financial view select stocks based on the future investment opportunities and focus on the stock returns, accounting view concentrates on using fundamental accounting information to select the stocks. This study attempts to investigate whether there is consistency between the two views. In other words, this study tries to explore the accounting performance of the value and growth stocks and investigate whether there are any significantly differences of these characters between the value and growth stocks.

2. Methodology

2.1 Conceptual Framework and hypothesis

The conceptual framework of this study is presented in the figure 1.

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┌──────────────────────┐        ┌────────────────────────────────────────────┐
│                      │        │ Accrual Based Performance                  │
│                      │        │ Earnings (EPS)                             │
│                      │        │ Total Accruals (Accruals)                  │
│                      │        │ Cash Flows Performance                     │
│                      │        │ Cash Flows from Operations (CFO)           │
│                      │        │ Cash Flows from Investing Activities (CFI) │
│  Financial Views     │        │ Cash Flows from Financing Activities (CFF) │
│  Value Stock         │───────▶│ Profitability                              │
│  Growth Stock        │        │ Return on Equity (ROE)                     │
│                      │        │ Return on Asset (ROA)                      │
│                      │        │ Return on Invested Capital (ROIC)          │
│                      │        │ Market Performance                         │
│                      │        │ Return Index (RI)                          │
│                      │        │ Price Index (PI)                           │
│                      │        │ Solvency                                   │
│                      │        │ Debt-Equity Ratio (DE)                     │
│                      │        │ Size                                       │
│                      │        │ Total Assets (TA)                          │
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Fig. 1. Conceptual Framework

This study examines the characteristics and accounting performance measures of the value and growth stocks. The accounting performance includes accrual based performance, cash flow performance, profitability, solvency and size. This study also compares whether there are significant differences in those performances as stated in the following hypothesis.

H1: There are significantly differences in accounting performances between the value and growth stocks.

2.2 Data Collection

The sample is consisted of the stocks listed in the stocks listed in the Stock Exchange of Thailand (SET) and the Market for Alternative Investment between 2009 through 2011. All prices and accounting information are obtained from the DataStream database.

2.2.1 Measurement of Value and Growth Stock

This study uses both price-to-earnings (P/E) ratios and price-to-book value (P/BV) ratios to identify the value and growth stocks. Price-to-earnings ratio is calculated from the closing share price divided by the annual earnings per share. This measure issimilar to Johnson, Fiore and Zuber (1989) which refers to Ball and Brown (1968) that the expected earnings announcements are so prevalent although the fund managers would not have access to a firm's financial statements. Price-to book value ratio is calculated from the closing price divided by the book value per share.

2.2.2 Measurement of Accounting Performance

The accounting performance measures include accruals-based performance, cash flows performance, profitability ratios, and solvency ratio. The accruals based performances are earnings per share and total accruals.

The total accruals represent net future cash flows of the company. The cash flows performance includes net cash flows from operating, investing and financing activities. The accruals and cash flows variables are scaled by total assets at the beginning period to reduce the size effect. The profitability ratios covers returns perceived from different viewpoints and/or stakeholders. The profitability ratios include return on asset (ROA) which could also be interpreted as efficiency, return on equity (ROE), and return on invested capital (ROIC). Debt to equity (D/E) ratio is used to represent the solvency, which implies the ability to fulfill long-term obligation of the company. All ratios data is presented as percentage. In addition to the accounting variable mentioned above, the market performance, return index (RI) and the price index (PI) are examined in order to assess the theoretical growth of the return and the market value of the securities.

Table 1: Summary of Variable Definitions and Measurements

Variable	Source	Definition / Measurement
EPS	Calculation	Earnings for the period divided by the number of shares outstanding
Accruals	Calculation	(Net income before extraordinary items and preferred and common dividends - Net Cash Flow from Operating Activities) scaled by the beginning balance of total assets
CFO	Datastream	Net Cash Flows from Operating Activities represents the net cash receipts and disbursements resulting from the operations of the company. It is the sum of Funds from Operations, Funds From/Used for Other Operating Activities and Extraordinary Items.
CFI	Datastream	Net Cash Flows from Investing Activities represents the net cash receipts and disbursements resulting from capital expenditures, decrease/increase from investments, disposal of fixed assets, increase in other assets and other investing activities. (Since the CFI obtained from the Datastream has opposite sign with those from the financial statements, the CFF data is multiplied by -1.)
CFF	Datastream	Net Cash Flows from Financing Activities represents the net cash receipts and disbursements resulting from reduction and/or increase in long or short term debt, proceeds from sale of stock, stock repurchased/redeemed/retired, dividends paid and other financing activities.
ROE	Datastream	(Net Income / Shareholder's Equity) * 100
ROA	Calculation	(Net Income / Beginning Balance of Total Assets)*100
ROIC	Datastream	Return on Invested Capital is defined as (Net Income - Bottom Line + ((Interest Expense on Debt - Interest Capitalized) * (1-Tax Rate))) / Average of Last Year's and Current Year's (Total Capital + Short Term Debt & Current Portion of Long Term Debt) * 100
RI	Datastream	A return index (RI) shows a theoretical growth in value of a share holding over a specified period, assuming that dividends are re-invested to purchase additional units of an equity at the closing price applicable on the ex-dividend date. $$RI_t = RI_{t-1} * \frac{PI_t}{PI_{t-1}} * \left(1 + \frac{DY_t}{100} * \frac{1}{N}\right)$$
PI	Datastream	The price index expresses the price of an equity as a percentage of its value on the base date, adjusted for capital changes.
DE	Datastream	Total debt % common equity. (Long Term Debt + Short Term Debt & Current Portion of Long Term Debt) / Common Equity * 100
TA	Datastream	Total assets
P/BV	Datastream	Share price divided by the book value per share
P/E	Calculation	Share price divided by earnings per share, whereas earnings per share is net income divided by number of common shares outstanding.

2.3 Data Analysis

The sample firm is ranked by the price-to-earnings ratios and price-to-book value at the end of 2009 from the lowest P/E and P/BV ratios to the highest. The sample is then divided into ten deciles. The top 10 decile (high P/E or P/BV) represents growth stocks and the bottom decile (low P/E or P/BV) represents value stocks. Then the accounting performances of the two groups are compared to see if they are statistically significant differences.I also use top and bottom 20% as threshold to identify the growth and value stock.The results are consistent with that of the top ten deciles.

3. *Result*

The initial number of observations is 609 firm years. One hundred and fourteen observations are dropped due to the lack of P/BV information and six observations are dropped due to the lack of P/E information. One hundred observations with negative P/E and P/BV values are eliminated to avoid the mixing results as evidence in Johnson, Fiore and Zuber (1989). To avoid the effect of the extreme value, twelve observations with P/E ratios exceed 150 are also eliminated. The number of observations in the final sample size is 377 firm years. The detail of sample selection is presented in table 2.

Table 2: Sample Selection

Initial Number of Observations		609
Less Observations due to		
No data on P/BV available	114	
Negative P/BV	6	
No data on P/E available	6	
Negative P/E	94	
P/E above 150	12	
Total number of deleted observations		232
Usable sample size		377

The means and standard deviations of the variables of interested in year 2010 and 2011of each decile classified by P/BV ratio and P/E ratio are presented in table 3 and table 4 respectively. The deciles with the lowest P/BV (P/E) ratios are value stocks whereas the deciles with the highest P/BV (P/E) ratios are growth stocks. According to the P/BV ratios classification, the average accounting performances of the growth stocks are superior to those of the value stocks. However, the classification by the P/E ratios yields different results. There is no clear pattern that the accounting performances of the growth stocks are higher than those of the value stocks. In fact, the results seem to be opposite. The profitability ratios of the value stocks are higher than the ratios of the growth stocks.

Table 3: Descriptive Statistics of Variables Classified by Deciles based on P/BV ratio

Type of Stock	Value Stock									Growth Stock
Variable	PB = 1	PB = 2	PB = 3	PB = 4	PB = 5	PB = 6	PB = 7	PB = 8	PB = 9	PB = 10
Earnings Based Performance										
EPS10	2.247*	2.851	2.467	3.027	2.096	1.740	3.105	2.784	1.906	7.827
	(4.007)	(6.632)	(7.337)	(5.453)	(4.459)	(3.053)	(6.909)	(5.728)	(3.210)	(18.316)
EPS11	1.805	2.157	0.192	3.012	2.166	1.462	3.033	2.913	1.684	8.091
	(3.701)	(4.164)	(3.589)	(6.733)	(4.625)	(2.722)	(5.545)	(7.068)	(2.733)	(17.906)
- Earnings Based Performance (scaled by beginning balance of total assets)										
Accrual10	-0.028	0.016	0.020	0.026	-0.034	0.004	-0.015	0.014	-0.025	-0.037
	(0.051)	(0.099)	(0.139)	(0.166)	(0.091)	(0.121)	(0.140)	(0.107)	(0.132)	(0.169)
Accrual11	-0.020	0.014	0.004	-0.021	-0.035	0.003	-0.007	-0.014	-0.017	-0.035
	(0.073)	(0.108)	(0.118)	(0.092)	(0.092)	(0.162)	(0.155)	(0.148)	(0.371)	(0.134)
Cash Flows Performance (scaled by beginning balance of total assets)										
CFO10	0.057	0.036	0.046	0.048	0.094	0.078	0.113	0.077	0.150	0.172
	(0.062)	(0.094)	(0.130)	(0.143)	(0.106)	(0.120)	(0.154)	(0.115)	(0.141)	(0.196)
CFO11	0.034	0.036	0.038	0.072	0.101	0.054	0.090	0.079	0.132	0.167
	(0.070)	(0.098)	(0.121)	(0.097)	(0.106)	(0.147)	(0.151)	(0.138)	(0.380)	(0.185)
CFI10	-0.035	-0.048	-0.056	-0.063	-0.049	-0.074	-0.044	-0.097	-0.076	-0.109
	(0.057)	(0.060)	(0.085)	(0.073)	(0.054)	(0.138)	(0.097)	(0.149)	(0.094)	(0.122)
CFI11	-0.054	-0.039	-0.063	-0.056	-0.080	-0.072	-0.058	-0.094	-0.452	-0.138
	(0.047)	(0.061)	(0.111)	(0.101)	(0.127)	(0.069)	(0.091)	(0.107)	(1.856)	(0.124)
CFF10	-0.011	0.011	0.015	0.021	-0.039	0.011	-0.042	0.022	-0.050	-0.048
	(0.064)	(0.094)	(0.125)	(0.115)	(0.115)	(0.157)	(0.093)	(0.163)	(0.142)	(0.191)
CFF11	0.012	0.011	0.013	-0.018	-0.009	-0.006	-0.025	0.029	0.344	-0.032
	(0.058)	(0.082)	(0.142)	(0.112)	(0.184)	(0.137)	(0.108)	(0.137)	(2.152)	(0.166)
Profitability										
ROE10	4.846	8.270	12.590	9.978	12.210	13.152	14.832	15.752	21.296	23.688
	(5.618)	(9.244)	(12.934)	(7.153)	(15.547)	(8.385)	(6.249)	(8.988)	(11.276)	(12.222)
ROE11	0.314	7.045	7.712	7.576	11.355	8.801	10.601	9.329	13.772	22.741
	(16.185)	(10.917)	(10.471)	(7.692)	(9.909)	(12.785)	(26.981)	(21.364)	(39.855)	(15.322)
ROA10	2.893	5.224	6.530	7.250	6.269	8.157	9.809	9.063	12.566	13.511
	(3.341)	(6.567)	(4.570)	(6.738)	(7.450)	(5.359)	(5.543)	(5.837)	(7.429)	(10.927)
ROA11	1.495	4.990	4.142	5.123	6.502	5.724	8.341	6.415	11.511	13.203
	(6.060)	(6.792)	(5.096)	(5.438)	(7.733)	(7.572)	(8.773)	(7.673)	(11.399)	(12.225)
ROIC10	4.362	7.024	8.612	8.785	9.046	10.906	12.501	12.362	17.818	19.077
	(4.486)	(7.194)	(5.270)	(5.688)	(10.359)	(7.440)	(7.105)	(6.283)	(11.775)	(12.281)
ROIC11	2.961	6.787	5.995	6.397	9.229	7.741	10.568	8.455	13.672	19.119
	(8.427)	(7.309)	(6.296)	(6.281)	(8.621)	(9.714)	(14.418)	(11.843)	(19.873)	(13.600)
RI10	165.384	438.731	608.977	561.127	574.617	538.851	865.766	920.341	1,087.14	1,710.84
	(275.9)	(1,706.4)	(1,152.0)	(1,370.5)	(888.8)	(777.0)	(2,684.7)	(1,788.4)	(2,057.1)	(2,648.2)
RI11	168.839	441.086	558.792	717.966	589.998	567.521	1,184.90	993.419	1,294.73	1,708.30
	(259.7)	(1,652.6)	(1,101.3)	(2,199.8)	(986.6)	(834.7)	(4,715.1)	(2,118.3)	(2,646.4)	(2,388.7)
PI10	71.030	182.284	259.326	179.227	254.992	229.016	309.915	361.418	480.332	893.168
	(90.3)	(639.5)	(481.4)	(260.1)	(407.9)	(233.2)	(730.2)	(510.1)	(777.9)	(1,215.4)
PI11	68.795	179.711	237.350	192.976	246.832	234.079	377.879	366.505	553.986	895.743
	(85.5)	(605.5)	(490.4)	(366.5)	(434.9)	(263.1)	(1,225.7)	(561.6)	(995.2)	(1,147.4)
Solvency										
DE10 %	38.422	35.417	95.486	62.738	82.796	56.077	64.193	84.785	47.406	84.591
	(55.02)	(42.67)	(124.69)	(115.75)	(130.43)	(112.32)	(128.42)	(88.27)	(66.89)	(115.13)
DE11 %	45.284	43.047	96.534	65.736	69.536	52.343	74.912	101.172	72.551	80.672
	(62.75)	(54.72)	(140.55)	(106.58)	(121.57)	(67.00)	(163.42)	(96.39)	(107.88)	(87.66)
Asset 10 (in mm)	6,838	4,327	15,365	15,995	78,145	61,296	17,403	109,115	67,110	40,959
	(13,265)	(4,965)	(47,168)	(35,159)	(314,572)	(315,395)	(37,260)	(338,140)	(256,885)	(83,072)
Asset 11 (in mm)	7,074	4,654	15,593	17,713	86,452	67,097	19,518	122,750	86,144	48,363
	(13,451)	(5,564)	(44,063)	(40,395)	(344,691)	(340,845)	(43,923)	(376,301)	(324,774)	(97,863)

Note * the number is simple mean and the number in the parenthesis is the standard devision.

Table 4. Descriptive Statistics of Variables Classified by Deciles based on P/E ratio

Type of Stock	Value Stock									Growth Stock
Variable	PE = 1	PE = 2	PE = 3	PE = 4	PE = 5	PE = 6	PE = 7	PE = 8	PE = 9	PE = 10
Earnings Based Performance										
- Earnings Based Performance (Per share)										
EPS10	2.882*	4.159	1.568	3.240	1.478	6.574	3.957	2.896	1.638	1.596
	(3.237)	(6.821)	(2.591)	(7.632)	(2.563)	(17.142)	(6.136)	(9.623)	(3.536)	(6.143)
EPS11	2.505	4.518	1.386	1.800	1.402	5.537	3.504	3.138	2.008	0.644
	(3.474)	(7.949)	(2.652)	(5.094)	(1.992)	(14.229)	(7.114)	(12.432)	(3.780)	(2.742)
- Earnings Based Performance (scaled by beginning balance of total assets)										
Accrual10	0.066	-0.002	-0.001	0.008	0.017	0.003	-0.072	-0.046	-0.033	0.003
	(0.162)	(0.107)	(0.114)	(0.116)	(0.161)	(0.169)	(0.079)	(0.094)	(0.079)	(0.107)
Accrual11	0.013	-0.021	0.012	-0.030	0.014	-0.034	-0.056	-0.017	-0.024	0.018
	(0.109)	(0.120)	(0.137)	(0.130)	(0.125)	(0.262)	(0.118)	(0.126)	(0.096)	(0.297)
Cash Flows Performance (scaled by beginning balance of total assets)										
CFO10	0.043	0.073	0.107	0.095	0.057	0.080	0.163	0.134	0.091	0.022
	(0.131)	(0.121)	(0.122)	(0.129)	(0.173)	(0.168)	(0.105)	(0.122)	(0.128)	(0.103)
CFO11	0.072	0.075	0.065	0.107	0.058	0.099	0.137	0.094	0.091	0.002
	(0.118)	(0.122)	(0.156)	(0.116)	(0.143)	(0.227)	(0.148)	(0.145)	(0.147)	(0.308)
CFI10	-0.036	-0.081	-0.072	-0.084	-0.048	-0.092	-0.062	-0.079	-0.067	-0.028
	(0.074)	(0.090)	(0.089)	(0.158)	(0.095)	(0.146)	(0.069)	(0.092)	(0.071)	(0.062)
CFI11	-0.046	-0.098	-0.063	-0.061	-0.073	-0.090	-0.127	-0.090	-0.113	-0.343
	(0.053)	(0.129)	(0.102)	(0.075)	(0.111)	(0.145)	(0.195)	(0.107)	(0.118)	(1.862)
CFF10	0.000	0.014	-0.027	-0.017	-0.001	0.023	-0.071	-0.037	-0.006	0.014
	(0.148)	(0.108)	(0.119)	(0.170)	(0.122)	(0.182)	(0.104)	(0.109)	(0.110)	(0.115)
CFF11	-0.027	0.029	0.001	-0.028	-0.007	0.002	-0.010	0.002	0.017	0.342
	(0.101)	(0.148)	(0.178)	(0.108)	(0.095)	(0.125)	(0.221)	(0.152)	(0.126)	(2.144)
Profitability										
ROE10	20.491	13.060	15.454	16.474	10.798	14.255	15.119	15.838	9.479	5.522
	(15.833)	(13.811)	(7.955)	(8.182)	(8.290)	(10.575)	(9.757)	(11.904)	(9.974)	(9.476)
ROE11	14.559	7.227	11.301	8.862	10.541	6.896	12.332	13.491	10.806	2.985
	(12.345)	(22.746)	(10.201)	(27.547)	(7.787)	(37.520)	(22.315)	(14.141)	(12.821)	(12.20)
ROA10	10.933	7.119	10.634	10.377	7.458	8.350	9.098	8.864	5.794	2.525
	(8.449)	(8.012)	(7.896)	(5.082)	(6.041)	(6.822)	(6.316)	(6.803)	(7.354)	(5.634)
ROA11	8.572	5.211	7.670	7.701	7.198	6.569	8.081	7.717	6.589	1.984
	(8.220)	(8.003)	(6.122)	(9.366)	(7.018)	(7.925)	(14.221)	(7.898)	(8.051)	(6.733)
ROIC10	15.223	9.511	13.111	12.687	9.499	11.448	13.599	12.693	8.163	4.407
	(12.727)	(10.744)	(7.923)	(5.598)	(6.594)	(7.982)	(9.163)	(9.004)	(9.256)	(6.601)
ROIC11	12.096	7.078	9.850	9.193	9.083	7.598	11.499	11.026	9.683	3.600
	(10.034)	(11.576)	(7.952)	(14.236)	(7.421)	(17.597)	(17.462)	(10.000)	(10.630)	(6.802)
RI10	407.441	621.179	407.641	1,441.38	799.995	993.514	1,078.44	700.790	817.871	175.045
	(916.13)	(1,353.35)	(915.64)	(3,014.9)	(1,965.5)	(2,364.74)	(1,500.71)	(1,113.11)	(2,010.24)	(252.51)
RI11	340.885	733.999	333.972	1,887.43	943.703	864.079	1,117.71	969.252	832.951	166.495
	(647.70)	(2,154.1)	(528.22)	(5,065.7)	(2,520.6)	(1,868.1)	(1,441.2)	(1,758.6)	(1,967.2)	(216.77)
PI10	163.346	211.153	171.847	479.634	359.437	456.451	450.905	379.161	421.508	111.949
	(277.42)	(270.58)	(189.67)	(818.82)	(783.37)	(1,028.7)	(596.63)	(568.71)	(930.20)	(142.99)
PI11	133.700	208.695	152.100	572.826	408.761	386.989	447.574	502.963	416.882	104.730
	(165.70)	(355.55)	(146.21)	(1,313.4)	(978.54)	(803.47)	(556.67)	(856.55)	(900.59)	(129.08)
Solvency										
DE10 %	60.288	135.030	41.653	72.894	58.140	62.710	27.640	54.192	55.145	85.128
	(67.77)	(187.58)	(42.75)	(133.77)	(108.08)	(63.85)	(50.28)	(99.40)	(62.93)	(100.32)
DE11 %	55.547	140.066	51.961	56.709	71.855	65.271	39.674	59.963	67.192	94.226
	(58.77)	(188.74)	(60.12)	(94.83)	(150.13)	(69.46)	(69.90)	(79.11)	(73.85)	(116.12)
Asset 10 (in mm)	17,178	37,718	9,833	9,258	60,429	110,499	54,579	55,543	54,531	8,758
	(48,646)	(143,104)	(25,801)	(22,910)	(289,134)	(374,688)	(248,860)	(238,827)	(171,798)	(24,112)
Asset 11 (in mm)	17,236	40,773	11,693	10,438	66,063	121,567	65,612	69,376	63,769	9,044
	(45,629)	(146,193)	(29,177)	(28,097)	(318,559)	(408,760)	(277,187)	(303,570)	(197,560)	(24,399)

Note * the number is simple mean and the number in the parenthesis is the standard deviation.

Table 5 and table 6 present the comparison of accounting performances of the value and growth stocks based on P/BV and P/E ratios respectively.

Table 5 shows that based on P/BV classification, earnings per share of the growth stocks in 2010 and 2011 are statistically significantly higher than those of the value stocks. However, there is no significant difference in accruals between the two groups. The growth stocks have significantly higher cash flows from operations in both 2010 and 2011 than the value stock. The growth stock firms also invested more since the cash flows from investing activities of the growth stock firms are significantly higher than those of the value stocks. (Note that the cash flows from investing activities are negative which mean that they are cash outflows.) The cash flows from financing activities between two groups are not statistically different.

Table 5. Accounting Performances of Value and Growth Stock Classified by P/BV ratio

Type of Stock Variable	Value Stock PB = 1	Growth Stock PB = 10	Mean Difference	t-value	p-value
Earnings Based Performance					
- Earnings Based Performance (per share)					
EPS10	2.247 (4.007)	7.827 (18.316)	-5.580	-1.8105	0.0778**
EPS11	1.805 (3.701)	8.091 (17.906)	-6.286	-2.0912	0.0431**
- Earnings Based Performance (scaled by beginning balance of total assets)					
Accrual10	-0.028 (0.051)	-0.037 (0.169)	0.009	0.2951	0.7693
Accrual11	-0.020 (0.073)	-0.035 (0.134)	0.015	0.5778	0.5652
Cash Flows Performance (scaled by beginning balance of total assets)					
CFO10	0.057 (0.062)	0.172 (0.196)	-0.115	-3.3887	0.0015*
CFO11	0.034 (0.070)	0.167 (0.185)	-0.132	-4.0755	0.0002*
CFI10	-0.035 (0.057)	-0.109 (0.122)	0.074	3.3532	0.0015*
CFI11	-0.054 (0.047)	-0.138 (0.124)	0.084	3.8500	0.0004*
CFF10	-0.011 (0.064)	-0.048 (0.191)	0.037	1.1264	0.2661
CFF11	0.012 (0.058)	-0.032 (0.166)	0.044	1.5217	0.1351
Profitability					
ROE10	4.846 (5.618)	23.688 (12.222)	-18.841	-8.5202	0.0000*
ROE11	0.314 (16.185)	22.741 (15.322)	-22.428	-6.1211	0.0000*
ROA10	2.893 (3.341)	13.511 (10.927)	-10.618	-5.6524	0.0000*
ROA11	1.495 (6.060)	13.203 (12.225)	-11.708	-5.2195	0.0000*
ROIC10	4.362 (4.486)	19.077 (12.281)	-14.715	-6.8457	0.0000*
ROIC11	2.961 (8.427)	19.119 (13.600)	-16.159	-6.1435	0.0000*
RI10	165.384 (275.877)	1,710.842 (2,648.227)	-1,545.459	-3.5307	0.0011*
RI11	168.839 (259.720)	1,708.305 (2,388.745)	-1,539.466	-3.8972	0.0004*
PI10	71.030 (90.302)	893.168 (1,215.389)	-822.138	-4.1033	0.0002*
PI11	68.795 (85.538)	895.743 (1,147.425)	-826.949	-4.3717	0.0001*
Solvency					
DE10 %	38.422 (55.022)	84.591 (115.134)	-46.169	-2.2008	0.0322*
DE11 %	45.284 (62.753)	80.672 (87.664)	-35.388	-1.9966	0.0496*
Asset 10 (in mm)	6,838 (13,265)	40,959 (83,072)	-34,121	-2.4672	0.0183*
Asset 11 (in mm)	7,074 (13,451)	48,363 (97,863)	-41,289	-2.5425	0.0153*

Table 5 also shows that all profitability ratios including ROE, ROA, ROIC and also return and price index in 2010 and 2011 of the growth stocks are significantly higher than those of the value stocks. The size of the growth stocks according to P/BV classification is significantly larger than the size of the value stock. With respect to the solvency, the average debt-equity ratio of the growth stock is significantly higher than those of the value stocks.

Table 6. Accounting Performances of Value and Growth Stock Classified by P/E ratio

Type of Stock Variable	Value Stock PE= 1	Growth Stock PE = 10	Mean Difference	t-value	p-value
Earnings Based Performance					
- Earnings Based Performance (per share)					
EPS10	2.882 (3.237)	1.596 (6.143)	1.287	1.1271	0.2634
EPS11	2.505 (3.474)	0.644 (2.742)	1.861	2.5577	0.0128*
- Earnings Based Performance (scaled by beginning balance of total assets)					
Accrual10	0.066 (0.162)	0.003 (0.107)	0.063	1.9407	0.0563**
Accrual11	0.013 (0.109)	0.018 (0.297)	-0.005	-0.0873	0.9307
Cash Flows Performance (scaled by beginning balance of total assets)					
CFO10	0.043 (0.131)	0.022 (0.103)	0.021	0.7748	0.4410
CFO11	0.072 (0.118)	0.002 (0.308)	0.070	1.2985	0.1983
CFI10	-0.036 (0.074)	-0.028 (0.062)	-0.008	-0.4707	0.6393
CFI11	-0.046 (0.053)	-0.343 (1.862)	0.297	0.9691	0.3357
CFF10	0.000 (0.148)	0.014 (0.115)	-0.014	-0.4381	0.6627
CFF11	-0.027 (0.101)	0.342 (2.144)	-0.369	-1.0469	0.2986
Profitability					
ROE10	20.491 (15.833)	5.522 (9.476)	14.969	4.9345	0.0000*
ROE11	14.559 (12.345)	2.985 (12.201)	11.574	4.0560	0.0001*
ROA10	10.933 (8.449)	2.525 (5.634)	8.408	5.0360	0.0000*
ROA11	8.572 (8.220)	1.984 (6.733)	6.587	3.7709	0.0003*
ROIC10	15.223 (12.727)	4.407 (6.601)	10.816	4.5890	0.0000*
ROIC11	12.096 (10.034)	3.600 (6.802)	8.496	4.2632	0.0001*
RI10	407.441 (916.133)	175.045 (252.505)	232.396	1.4876	0.1444
RI11	340.885 (647.704)	166.495 (216.774)	174.390	1.5531	0.1276
PI10	163.346 (277.418)	111.949 (142.985)	51.397	1.0017	0.3198
PI11	133.700 (165.698)	104.730 (129.076)	28.970	0.8390	0.4043
Solvency					
DE10 %	60.288 (67.769)	85.128 (100.318)	-24.840	-1.2481	0.2166
DE11 %	55.547 (58.773)	94.226 (116.122)	-38.679	-1.8078	0.0763**
Asset 10 (in mm)	17,178 (48,646)	8,758 (24,112)	8,419	0.9433	0.3487
Asset 11 (in mm)	17,236 (45,629)	9,044 (24,399)	8,192	0.9630	0.3388

Table 6 provides the t-test statistics from the comparison of accounting performances between the value and growth stocks classified by P/E ratios. The results turn out to be quite different from the results from the classification by the P/BV ratios. Under the P/E ratios classification, the earnings per share in 2011 of the value stocks are significantly higher than that of growth stock. The evidences show no statistically significant differences in all types of cash flows performance between the value and growth stocks. The more astonishing results are that all the profitability ratios, ROE, ROA, and ROIC in both 2010 and 2011, of the value stocks (low P/E ratios) are significantly higher than those of the growth stocks (high P/E ratios). However, there is no difference in return and price index between the two groups. With respect to the solvency, ability to fulfill long-term commitment of the company, the average debt-equity ratio of the growth stock firms is marginally significantly higher than that of the value stock firms. Regarding the size, there is no significant difference in the average total assets of the two groups. The comparisons of the top and bottom 20 percent P/E and P/BV ratios also yield the similar results.

4. Discussion And Conclusions

4.1 Synthesis of the study

According to portfolios based on P/E ratios, the value stocks have significantly higher than total accruals in year 2010 but not in year 2011. There is no significantly difference in all cash flows performance between the value stock and growth stocks. However, the profitability ratios, average ROA, ROE, and ROIC of the value stocks are significantly higher than those of the growth stocks. Average debt/Equity ratio of growth stocks is marginally significantly higher than that of value stocks.

The results are quite different if the portfolios are constructed by P/BV ratios. The total accruals of the value and growth stocks are not statistically significantly different. However, the findings show interesting patterns of cash flow performance. The growth stocks have significantly higher net cash flows from operating activities which imply that growth stock firms have more potential to generate cash flows by themselves. The growth stock firms also have higher net cash flows from investing activities. Since the sign of the net cash flows is negative, the results imply that the growth stock firms are likely to invest more than the value stock. However, there is no significantly difference in cash flows from financing activities between the two groups. With respect to the profitability measures, all the ratios, ROA, ROE, and ROIC of the growth stocks are significantly higher than these of the value stocks. The results are contradictory to what found from portfolios constructed based on P/E ratios. The results also show that the average D/E ratio of the growth stock firms is significantly higher than that of the value stock firm.

This study though is descriptive by nature, yields interesting results. Between the two measures of value perceived by investors in the market, P/BV ratios seem to better identify the stocks that are consistent with accounting views. Growth stock firms are firms with relatively higher cash inflows from operation and higher cash outflows from investing activities. Growth stock firms are more efficient in term of asset utilization (ROA), higher profitable (ROE) and better utilize their invested capital (ROIC). Lastly, the growth stock firms seem to be relatively more aggressive in using debt financing than the value stock firms. These conditions are in line with the fundamental factors supporting the growth firms having more positive investment opportunities.

However, the unexpectedly conflicting results still need an answer on why P/E ratio which is commonly used by investors to identify the growth and value stock does not provide consistent message with the accounting viewpoints. Though part of the results is consistent with the inconclusive results found in prior literature that the growth stocks outperform the value stocks, this reason cannot be used to justify the findings here since the main focus of this study is to examine the accounting characteristics of the firms not the investment returns from the portfolio. This is the issue needed to be reconciled.

4.2 Contributions and Recommendations

The results show the accounting performances of value stock and growth stock firms. The comparisons of the characteristics between the two groups provide the crucial evidence on the value perceived by the markets (investors) and the valuereflected from the accounting information provided by the financial statement. The results basically help reconcile the two views perceived by financial analysts and the accounting views. The results imply the usefulness of accounting information and would be benefits to investors who especially want to invest based on fundamental factors.

Further research should explore both market performances (i.e. investment or portfolio returns) and accounting performances in a longer period of times to provide both short-term and long-term evidence of the characteristics of value and growth stocks in Thailand. The results could also reflect investor expectation in the Thai capital market.

Although prior research claims that both P/E and P/B ratios capture the firms' future growth opportunities and they are often used as proxies for value and growth stocks in finance literature, the fact that P/E and P/B ratio provide different classifications and yield the different results about (on) the accounting performances of the Thai value and growth stocks should be of interest to the related stakeholders in the Thai business community.

The finance professions such as financial analyst should be aware of this inconsistency and be cautious when interpreting the empirical evidence found in the developed capital market and should not assume that recommendationsprovided are applicable to the Thai capital markets.

Researchers conducting studies in the area in the Thai capital market should be aware of this phenomenon that using P/E and P/B ratio could capture different or even opposite construct. The findings from the developed market may not be applied to the emerging market like Thai Stock Exchanges. Further research could be conducted to explain why these two proxies yield different research results, and which proxy actually represents the future growth opportunities of the stock in the Thai capital market.

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