

**VALUE VERSUS GROWTH STOCKS :
PORTFOLIO ANALYSIS APPROACH ON
INDONESIA STOCK EXCHANGE
(Empirical Study to Companies Listed on Kompas100 Index
2003-2018 Period)**



UNDERGRADUATE THESIS

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MOTTO

“He who has a why to live can bear almost any how” Nietzsche

“The greater the obstacle, the more glory in overcoming it” Molière

Since the author is a dumb student and doesn't know what else to be written in this page, here are some recommendations for those who like to read philosophical stuff (it took him almost 7 years to graduate from college, society often branded this kind of student as a stupid disappointment a.k.a. laughingstock). The author would like to suggest most of Nietzsche's work (Thus Spoke Zarathustra, Beyond Good and Evil etc.). It is really amusing how Nietzsche captures and explains the philosophic view of the world, reality, and our human nature as social animal. George Orwell 1984 is also a good starting point. The classical art from renaissance era (Oliver Twist, Great Expectation etc.) can offer a great amount of revolutionary view/idea from the past. While the author is fully aware that this kind of topic is often ignored by most people, it is actually amazing in truth. Lastly, even though the author looks like a creepy, lonely, miserable, and single all the time, He actually did fell in love. With books and ideas.

“This thesis is dedicated for my mom and dad”

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(Empirical Study to Companies Listed on Kompas100 Index 2003-2018 Period).

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I do realize that this thesis is nowhere near perfect. Therefore I will gladly accept all criticism and advice in order to improve this thesis. Finally, I Hope that this thesis will contribute knowledges to public, academics and myself.

Semarang, 26 November 2018

Cyrilus Willy Widodo

ABSTRACT

This research aims to clear the ambiguity in superiority between value and growth stocks strategy, particularly in Indonesia. Furthermore, we attempt to develop investment strategy on Indonesia Stock Market based on picking method using Price to Earnings (P/E), Price to Book Value (P/B), Price to Cash Flow (P/C) in relation with time period. This research conducted on non-financial companies listed in Kompas100 Index from 2003 to 2018 period. We are in compliance with previous research such as Fama and French (1992; 1998), Capaul et al. (1993), and Lakonishok et al. (1994).

We conduct the research by using portfolio analysis method. By using this method, we formed portfolios and determined its average equally weighted return. After portfolios return are calculated, we proceed to conduct T-test to determine the difference in return between stock types (value and growth) during our research period. Last but not least, we conduct 3-way ANOVA test to find out any interaction regarding the performance of our variables.

The results showed that value stocks outperform growth stocks based only on P/E and P/B ratio. The ANOVA test showed that after at least 1 year period, our investment starting to yield at least 76% of our initial investment. Also, the ANOVA test reaffirm the long-established result that value outperform growth stocks in general. Lastly, there are no differences between P/E, P/B and P/C ratio performance as sorting tool to classify value and growth stocks.

Keywords: value stocks, growth stocks, portfolio analysis, P/E ratio, P/B ratio, P/C ratio

ABSTRAK

Penelitian ini bertujuan untuk menjelaskan adanya ambiguitas keunggulan antara saham value dan saham growth terutama di Indonesia. Peneliti mencoba untuk menemukan strategi investasi dalam Bursa Efek Indonesia berdasarkan metode penentuan menggunakan Price to Earning (P/E), Price to Book Value (P/B), Price to Cash Flow (P/C), dan hubungannya dengan jangka waktu investasi. Penelitian ini dilakukan pada perusahaan yang terdaftar dalam Indeks Kompas100 dari tahun 2003 hingga 2018. Peneliti mengikuti penelitian terdahulu yang dilakukan oleh Fama dan French (1992; 1998), Capaul et al. (1993) dan Lakonishok et al. (1994).

Peneliti melakukan penelitian ini menggunakan metode portofolio analisis. Dengan menggunakan metode tersebut peneliti membentuk formasi portofolio dan menentukan nilai rata-rata return setimbang dari portofolio tersebut. Setelah perhitungan return dilakukan, peneliti melakukan Uji T untuk menentukan perbedaan return antar tipe saham (value dan growth). Pada akhirnya peneliti melakukan uji ANOVA untuk mencari tahu adanya interaksi perilaku antar variable yang digunakan.

Hasil penelitian menunjukkan bahwa saham value mengalahkan saham growth berdasarkan rasio P/E dan P/B. Uji ANOVA menunjukkan bahwa setelah jangka waktu investasi 1 tahun, investasi mulai menunjukkan signifikan return sekitar 76% dari investasi awal. Selain itu, uji ANOVA membuktikan bahwa saham value mengalahkan saham growth secara umum. Poin terakhir, tidak ada perbedaan performa dari penggunaan rasio P/B, P/E dan P/C untuk memisahkan tipe saham ke dalam saham value dan growth.

Kata kunci: saham value, saham growth, portofolio analisis, P/E rasio, P/B rasio, P/C rasio

TABLE OF CONTENT

APPROVAL.....	i
APPROVAL.....	ii
ORIGINALITY STATEMENT.....	iii
MOTTO.....	iv
ACKNOWLEDGEMENT.....	v
ABSTRACT.....	viii
ABSTRAK.....	ix
LIST OF TABLE.....	xiii
APPENDIX.....	xiv
CHAPTER 1 INTRODUCTION.....	1
1.1 Research Background.....	1
1.2 Problem Formulation.....	10
1.3 Research Objectives.....	11
1.4 Research Utility.....	11
1.5 Thesis Structure.....	12
CHAPTER 2 LITERATURE REVIEW.....	14
2.1 Theoretical Review.....	14
2.1.1 Investment.....	14
2.1.2 Classification of Stocks.....	14
2.1.2.1 Value Stocks.....	16
2.1.2.2 Growth Stocks.....	17
2.1.3 Classifying Stocks as Value or Growth.....	18
2.1.3.1 Price to Earnings.....	20
2.1.3.2 Price to Book Value.....	21
2.1.3.3 Price to Cash Flow.....	22

2.1.4 Modern Portfolio Theory.....	23
2.2 Previous Research.....	25
2.3 Hypotheses.....	29
CHAPTER 3 RESEARCH METHODOLOGY.....	30
3.1 Research Variables.....	30
3.2 Research Population and Sample.....	32
3.2.1 Research Population.....	32
3.2.2 Research Sample.....	33
3.3 Research Data.....	34
3.3.1 Data Types.....	34
3.3.2 Data Sources.....	35
3.4 Research Framework.....	35
3.4.1 Portfolio Formation and Evaluation.....	35
3.4.2 P/E Based Value and Growth Portfolio.....	38
3.4.3 P/B Based Value and Growth Portfolio.....	38
3.4.5 P/C Based Value and Growth Portfolio.....	39
3.4.6 Hypothesis Testing.....	40
3.4.7 Post Hoc Test.....	40
CHAPTER 4 RESULT AND ANALYSIS.....	42
4.1 Research Object Definition.....	42
4.2 Research Result.....	43
4.2.1 Value and Growth Portfolio Based on P/B Ratio.....	43
4.2.2 Value and Growth Portfolio Based on P/E Ratio.....	44
4.2.3 Value and Growth Portfolio Based on P/C Ratio.....	46
4.3 Hypothesis Testing.....	47
4.3.1 First Hypothesis.....	47
4.3.2 Second Hypothesis.....	50

4.3.3 Third Hypothesis.....	52
4.4 Post Hoc Test.....	55
4.4.1 By Term.....	55
4.4.2 By Style.....	60
4.4.3 By Picking Method.....	61
CHAPTER 5 RESEARCH CONCLUSION.....	65
5.1 Summary.....	65
5.2 Research Limitation.....	68
5.3 Research Suggestion.....	69
5.3.1 For Practitioner.....	69
5.3.2 For Academics.....	69
BIBLIOGRAPHY.....	71
APPENDIX.....	75

LIST OF TABLE

Table 1.1 Indonesia Value and Growth Index Annual Performance.....	8
Table 2.1 Previous Research.....	28
Table 3.1 Operational Definition of Variables.....	31
Table 3.2 Observation, Formation and Evaluation Period.....	36
Table 4.1 Descriptive Statistics Result of Value and Growth Portfolio Return Based on P/B Ratio.....	44
Table 4.2 Descriptive Statistics Result of Value and Growth Portfolio Return Based on P/E Ratio.....	45
Table 4.3 Descriptive Statistics Result of Value and Growth Portfolio Return Based on P/C Ratio.....	46
Table 4.4 Paired Sample t-test Result of Value and Growth Portfolio Based on P/B.....	48
Table 4.5 Paired Sample t-test Result of Value and Growth Portfolio Based on P/E.....	50
Table 4.6 Paired Sample t-test Result of Value and Growth Portfolio Based on P/C.....	53
Table 4.7 Descriptives ANOVA Test By Term Result.....	56
Table 4.8 ANOVA Test By Term Result.....	57
Table 4.9 Multiple Comparisons By Term Result.....	57
Table 4.10 Descriptives ANOVA Test By Style Result.....	60
Table 4.11 ANOVA Test By Style Result.....	61
Table 4.12 Descriptives ANOVA Test By Picking Method.....	62
Table 4.13 ANOVA Test By Picking Method Result.....	62
Table 4.14 Multiple Comparisons By Picking Method Result.....	63

APPENDIX

Appendix 1.1 Sample List.....	76
Appendix 1.2 Portfolio Return Based on P/B Ratio.....	79
Appendix 1.3 Portfolio Return Based on P/E Ratio.....	83
Appendix 1.4 Portfolio Return Based on P/C Ratio.....	87
Appendix 1.5 Paired Sample t-test Result of Value and Growth Portfolio Based on P/B.....	91
Appendix 1.6 Paired Sample t-test Result of Value and Growth Portfolio Based on P/E.....	92
Appendix 1.7 Paired Sample t-test Result of Value and Growth Portfolio Based on P/C.....	93
Appendix 1.8 Descriptives ANOVA test Result Based on TERM.....	94
Appendix 1.9 Test of Homogeneity of Variances Based on TERM.....	94
Appendix 1.10 ANOVA test Result Based on TERM.....	95
Appendix 1.11 Tukey and Bonferroni Test Result Based on TERM.....	95
Appendix 1.12 Homogeneous Subset Result Based on TERM.....	100
Appendix 1.13 Descriptives ANOVA test Result Based on STYLE.....	100
Appendix 1.14 Homogeneity of Variances Based on STYLE.....	101
Appendix 1.15 ANOVA test Result Based on STYLE.....	101
Appendix 1.16 Descriptive ANOVA test Result Based on PICKING METHOD.....	102
Appendix 1.17 Homogeneity of Variances Based on PICKING METHOD.....	102
Appendix 1.18 ANOVA test Result Based on PICKING METHOD.....	103
Appendix 1.19 Tukey and Bonferroni Test Result Based on PICKING METHOD.....	103
Appendix 1.20 Homogeneous Subset Result Based on PICKING METHOD.....	104

CHAPTER 1

INTRODUCTION

1.1 Research Background

Ever since the very beginning of stock exchange existence, it is a common sense for investor to find a strategy to beat the market and achieve superior return. Sarna and Malik, (2010) consider this types of investor as value driven in regard that risk and rewards were calculated both implicit and unconsciously. The work and result from academic research are advocated toward the creation of the foundation and building blocks in order to comprehend and to provide various investment strategies assessed in financial markets globally (Chan and Lakonishok, 2004). According to Barberis and Shleifer (2003) as well as Chan and Lakonishok (2004) one of the most popular theories on classification in financial market is the usage of different investment styles. The securities allocation can be classified in various manners. But one of the most popular classification according to Bourguignon and De Jong, (2003) to which caused disagreement in both analyst and investor side regarding the superiority, lies within the classification of value and growth stocks.

The dichotomy of value and growth investment strategy began long time ago. One of the earliest scholar to make the contrast between value and growth stock were Graham and Dodd in *Security Analysis* (1934). Graham and Dodd essential approach for investment is by purchasing equities at price less than their

intrinsic value, therefore made them regarded as father of fundamental security analysis. The principle of Graham and Dodd investment has been carried and put into practice by his famous disciple, Warren Buffet. Buffet started a partnership with seven limited partners in 1959, when he was 25 with \$ 105.000 in funds. He generated a 29 percent return over the next 13 years, developing his own brand of value investing during the period. One of his most successful investments during the period was an investment in American Express after the company's stock price tumbled in the early 1960. By 1965, the partnership was at \$ 26 million and was widely viewed as successful.

For decades, a lot of studies stated that value stock investment strategy have higher return than growth stock strategy. Scholars such as Basu (1983), Fama and French (1992), Lakonishok et al. (1994), Capaul et al. (1993) shared the same idea. Value investment refer to investing in stocks of firm that have low price to book ratio (P/B), furthermore this stock also have low earning ratio (P/E) and low price to cashflow ratio (P/C) which is considered as undervalued stock (Bauman, Conover, and Miller, 1998). On the other hand, growth strategy mean choosing to invest on firm stocks that have high P/E, P/B and P/C ratio which is considered as overvalued stock (Graham and Dodd, 1934).

The phenomenon of value invesment produce higher return over growth is defined as value premium. Capaul et al. (1993) described value premium as the (positive) difference between returns obtained from portfolio composed of value stocks and portfolio composed of growth stocks. This premium outcome will influence investor whether to invest in value or growth stock thus determine their

strategy. The higher value premium, the more likely it is that investor give preference to value stock due to the providence of higher returns compared to growth stock (Bird and Casavvechia, 2007).

Numerous researchers such as Davis and Lee (2008), Fama and French (2000) concluded that the existence of positive value premium is not unusual. It has been proposed that value stock produce comparatively higher return than growth stock because value stocks are relatively more risky. Consequently the existence of value premium has been viewed as consistent with efficient market hypothesis.

Another explanation for value premium is raised by Lakonishok et al. (1994) and Daniel and Titman (1997) by using overreaction hypothesis. They conclude that investors overreact to performance and assign irrationally low values to weak firm that have low P/B and irrationally high value to strong firm with high P/B. When the overreaction is corrected, weak firms have high stock returns and strong firm have low returns.

The investment community however, has continuously debate the benefit of this particular investment strategy. Around 1990, when growth stock outperformed value stock, advocates for growth stock strategies and thus generated enthusiasm for growth stocks as superior investment approach (Patel and Swensen, 2007). The value stocks proponent however, have concluded that the data for this period represent an aberration, and that value investment strategy will eventually outperform growth investment strategy in the long run. Other

study by Ibbotson and Reipe (1997) suggest that investor should consider balancing their asset allocation approach that includes mixed investments in both value and growth stocks.

On the opposing side of the value premium discussion, Black (1993) explain the result in Fama and French (1992) as a misinterpretation and simply as product of data mining in which will not provide guarantee on the result in the presence of estimation error and changing risk premiums. Supporting Black's conclusion, MacKinlay (1995) argues that on the *ex post* basis, by grouping assets with common disturbance terms will possibly resulting a statistically significant deviations.

In response to Black (1993) and MacKinlay (1995) assessment that value premium is sample specific, Fama and French (1998) look at the stock return from countries across the world such as Japan, US, United Kingdom, Germany, Italy, France, Belgium, Switzerland, Sweden, Australia, Hongkong and Singapore from 1975 till 1995. They form portfolio at the end of each calendar year and show that value premium exists in 12 of 13 major markets. In addition, Liew and Vassalou (2000) take a look at security returns from international markets (Australia, Canada, France, Germany, Italy, Japan, Netherland, Switzerland, UK, and US). They confirm Fama and French previous finding as the return on zero investment portfolios are both statistically and economically significant in most markets.

The matter of value and growth stocks has been a huge topic to study during 1990's period and 2000's period. Scholar such as Lakonishok et al. (1994),

Fama and French (1998; 2007), Bauman and Miller (1998) and Black and McMillian (2004) further research the topic in association with return, risk and overall performance. The studies found similar conclusion that value stocks type have the tendency to produce higher total return and higher outcomes on risk adjusted measures than growth stocks type both in national and international level. The conclusion has become an advantage for value stock investor as they have research backing in favor of value stocks. Since most scholar suggest that portfolios consisting value stocks tend to outperform growth stocks portfolios. The extended period of time is usually within a minimum of 10-year time period (Bauman et al. 1998; Fama and French, 1998 ; Bird and Casavecchia, 2007; Cahine, 2008). Capaul et al. (1993) and Bauman et al. (1998) argue that value stocks did not outperform growth stocks in monthly and quarterly period.

On the other hand, there are reasons why some investor picking growth stocks over value stocks even though a lot of studies show that value will outperform growth. This is because value stocks can produce higher return as compensation of higher risk (Fama and French, 1992). This is in line with the concept of the value premium being derived from higher risk. Another approach by Swensen (2000) argue that an investor engaging in pure investment in growth stocks do not usually take fundamental analysis into account. The investor's strategy is instead composed of analysing the markets interpretation of the particular stock's future development. Furthermore an investor in growth stocks does not care what the fundamental value is as long as the market believes that the price today is lower than the price in the future.

Growth stocks type are identified as the stocks whose earnings expectation and growth rates are substantially higher than the market averages and continue to raise further (Babson, 1951; La Porta et al. 1997; Leladakis and Davidson, 2001; Bourguignon and De Jong, 2003). These type of stocks are prone to be extremely popular in the market due to the potential creation of innovation of products and securing market opportunities. Growth stock return as expected by investors can be obtained when the market value of those companies rise further (Babson, 1951; Bourguignon and De Jong, 2003).

Many researchers conducted study to observe the paradigm of value and growth stock strategy in Southeast Asia. J.Y. Yen et al. (2004) using sample from 1975 to 1997 concluded that value premium exist in Singapore no matter whether value and growth portfolios are formed based on P/B, P/E or P/C, value stock always provide higher return than growth stock in subsequent years, especially in the first 2 years after portfolio formation in which prove the existence of value premium although it may not last up to 5 years. Another study by D.K. Ding et al. (2005) from 1976 to 1997 before the financial crisis in 1998, suggests that the value premium is positive in Hong Kong, Japan, Malaysia and Singapore, whereas it is significantly negative in Thailand and insignificant in Indonesia and Taiwan. Recent study by Brown et al. (2008) also found value premium in Singapore.

Although number of researches has been performed in Southeast Asia market, there is still controversy about value and growth stock strategy in Indonesian stock market. One study by Roll, (1995) shown that value stocks performed better than growth stocks in Indonesia during research period from

1985 – 1992 by using P/B to classify the portfolios while also facing data unavailability as one of the research limitation during the period. This could be improved by adding variable such as P/E, P/C or Dividend Yield to help classifying value and growth stocks, also data availability can be more accessible with our current technology nowadays. Another study by Hasnawati (2010) which examine 125 stock in Indonesia from 2003 – 2007 found that growth stocks produce higher average return than value stocks. To deepen the insight further on value and growth strategy in Indonesia capital market, Yesica (2014) try to find difference in returns between value and growth stock conducted on 30 stocks listed from 2003 – 2013 and found that there is no difference in returns among categories.

While it is a fact that many researches has been done to study value versus growth strategy and performance in Indonesia, very little known about using portfolio analysis as research method. This particular method will be our approach to study the topic above. The reason being is because portfolio analysis is the only known method so far to enable us to examine stocks selection and evaluate the portfolio in both short and long term. Furthermore, by using portfolio analysis we will be able to define the strategy and form portfolio to choose based from our analysis and observation, which is our main purpose. Therefore this research might help us to understand value and growth stocks in Indonesia Stock Market from fundamental level.

In term of classifying whether a stocks are value or growth, Fama and French (1993) acknowledge that value and growth stocks drive on different scales

of financial ratio (multiples) to make the classification. Since the typical characteristic of value (growth) stocks is the relative comparison of fundamental value of company with market prices, it is very common to use ratio such as P/E, P/B, P/C as tool to classify stocks. While it is viable to use only a single multiple/ratio to classify stocks (e.g. Capaul et al. 1993), Chahine (2008) argue that by using only single multiple to classify stocks would not produce appropriate results. Furthermore, to generates applicable results, various multiples should be used since multiples are analyzed from different perspectives (Chahine, 2008). Therefore, this study will use P/E, P/B, and P/C ratio as classification tools.

The performance of value and growth stocks in Indonesia itself is actually experiencing ups and down in the last decade. Here, we see the annual performance of value and growth stocks from 2004-2017.

Table 1.1
Indonesia Value and Growth Index Annual Performance (%)

Year	MSCI Value Index	MSCI Growth Index	MSCI Indonesia
2017	31.62	17.94	24.79
2016	19.91	14.28	17.52
2015	-25.41	-12.41	-19.08
2014	26.42	27.77	27.21
2013	-20.68	-25.51	-23.10
2012	13.91	-2.92	5.22
2011	1.29	11.81	6.50
2010	32.29	37.00	34.62
2009	129.79	125.02	127.63
2008	-49.26	-63.36	-56.20
2007	55.72	50.92	55.03
2006	74.25	75.41	74.83
2005	12.33	17.49	15.76
2004	60.93	43.65	52.21

Source : MSCI Global Value and Growth Indexes

As shown in the Table 1.1 above, value stocks able to beat growth stocks and Indonesia index in 2004, 2007, 2009, 2012, 2016 and 2017. Even during global crisis in 2008, value stocks still suffer the least setback at -49.26 % while growth suffer the worse at -63.36 %. But this glory of value stocks is not always the case, back in 2015 value stocks suffered major setback (-25.41%) even worse than general index (-19.08 %) and growth stocks index (-12.41%). On the other hand, there are only few occasions in which growth stocks outperform the other indexes such as in 2005, 2006, 2010, 2014, and especially in 2011. Back in 2011 growth stocks index achieving a short lived superiority against all other indexes at level 11.81 % with at least 10% difference against value stocks (1.29 %).

As the data presented above, value stocks seemed to be superior strategy than growth stocks. But it does not guarantee clear strategy as the data above only show annual performance of the indexes while short term investment and stocks selection strategy still left untouched. Thus leaving vague answer and opportunity for us to re-examine this topic using portfolio analysis as our method. Therefore research on value and growth investments strategy should be fairly interesting and relevant to do in Indonesia Capital Market. According to phenomenon, research gap and data presented above, the title of this research is :

“Value versus Growth Stocks : Portfolio Analysis Approach on Indonesia Stock Exchange ”

1.2 Problem Formulation

The primary aim of every investor is to gain profit and value increase on their assets in the future. Hence, many technique analysis and strategy were devised in order to win the market. One of those strategy is by classifying stock as value and growth then forming portfolios accordingly to help managing the stocks better. Many researchers suggest that value stocks will outperform growth stocks during an extended period of time, but the fact that growth stocks strategy still somewhat popular and also proven to outperform value stocks during 90's period should be interesting topic to delve into. Also the unstability of value and growth stocks performance in Indonesia Stock Market might need to be re-examined to help finding strategy for any value or growth investment. Our study here should be able to help clearing this ambiguous state of investment style superiority between value and growth stocks at least on Indonesia Stock Market. Furthermore, this study will also evaluate and analyze the performance of portfolios to help devising strategy in term of stock selection method. In addition, since Indonesia is one of the major economic power in Southeast Asia, the gradual growing financial power of Indonesia Stock Market over time should also make this study worthwhile, These will be our main concern in this research, thus raising questions :

1. Does value stocks strategy outperform growth stocks based from P/B ratio on Indonesia Stock Market ?

2. Does value stocks strategy outperform growth stocks based from P/E ratio on Indonesia Stock Market ?
3. Does value stocks strategy outperform growth stocks based from P/C ratio on Indonesia Stock Market ?

1.3 Research Objectives

Fundamental goal of this research according to research problem and questions are :

1. To analyze value and growth stocks portfolio performance based P/B ratio in Indonesia Stock Market.
2. To analyze value and growth stocks portfolio performance based P/E ratio in Indonesia Stock Market.
3. To analyze value and growth stocks portfolio performance based P/C ratio in Indonesia Stock Market.

1.4 Research Utility

Utility of this research as following:

1. Theoretical

This research use portfolio analysis as method in order to approach problem fundamentally thus give insight to academicians and also provide support for further research regarding this topic.

2. Practical

By develop and analyse performance of each portfolio within certain time

frame, this study could provide strategy and formation to investment community as to help them make decision, picking investment, and arranging portfolios.

1.5 Thesis Structure

This research structure as following :

Chapter 1 : Introduction

This chapter contain background research and evidence of value and growth stocks strategy in the past as well as research gap done by previous research in order to construct foundation of research, which will also build problem formulation, research objectives, utility and thesis structure at last

Chapter 2 : Literature Review

Literature Review give insight on fundamental theory of value and growth stocks investing style and definitive meaning of variables this research concerning about. Begin with definition of investment, then discussing of the stock classification and definition of value and growth stocks, also previous research finding to help provide perspective regarding the main problem.

Chapter 3 : Research Method

This section will provide research variables, data and source, sample and population, data collection method and analysis method

Chapter 4 : Result and Analysis

Here, the results of processed data will be discussed and analysed and also interpretation of the result.

Chapter 5 : Conclusion

This chapter will provide conclusion of this research and limitations, also suggestion for further research.