Stock Valuation Based On Fundamental And Risk Analysis Approaches

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Abstract: This paper studies how Malaysian investors evaluate stocks, in which is related to the source of consultation, the utilization level of the fundamental and risk analysis, the applied tools for stock valuation, and the differences from the results of developed markets and other emerging markets. A semi-structured interview is conducted with twenty investors, who divided into two equal groups based on the volume of stock trading, investors with high and low trading volume, which makes an appropriate composition of mutual standpoints to discover the stock valuation approaches of Malaysian investors. The findings show that most investors use the high level of fundamental and risk analysis for stock valuation, and the utilization level of risk analysis is greater than fundamental analysis, in which the stock price trend, stock trading volume trend and market statistics are popular tools of risk analysis. The level of using fundamental analysis by Malaysian investors is close to the results of developed markets, and greater than other emerging markets. However, the utilization level of risk analysis is greater than developed markets and similar to other emerging markets. Therefore, the political analysis plays unique and complementary roles on stock valuation by Malaysian investors. Contrary to expectation, the results of two groups of investors are almost same, thus the results of this study can be extended to a wide range of Malaysian investors.

Key words: Stock valuation, fundamental analysis, risk analysis, technical analysis, political analysis, Malaysian investors.

INTRODUCTION

The developments of stock markets are vital to economic growth (Levine et al. 2000). There is a positive relationship between stock market development and economic growth for twenty one emerging markets over more than twenty years (Mohtadi and Agarwal 2004). In the Calderon-Rossell model, the main determinant of stock market development is stock market liquidity (Calderon-Rossell 1989). Stock market liquidity is the important determinant of stock market development. A more liquid stock market leads to higher stock market development. High liquidity guarantees by the investors’ acquisition to information for stock valuation method (Economides 1995). Thus, the recognition to the idea and stock valuation approaches of investors help to increase the stock trading volume and stock market liquidity. As a result, the main purpose of this study is to investigate how Malaysian investors make an appraisal of the stocks. In particular, how the investors use fundamental analysis and/or risk analysis to stock valuation. A semi-structured interview is applied to recognize the stock valuation by twenty investors. The basis of the selection process of interviewees was adjusted with stock trading volume, because the focus of this study is an acquaintance with stock valuation that lead to increase stock trading volume. Therefore, the interviewees divide into two equal groups, a group of investors with high stock trading volume and a group of investors with low stock trading volume, which make an appropriate composition of mutual standpoints.

We find that all of the investors studied financial statements for fundamental analysis, specially, Profit and loss statement and balance sheet which are widely used by investors in stock valuation. Risk analysis tools divide into technical analysis and political analysis. Most of technical analysis tools are applied by all investors. All of investors use political analysis as the first step of risk analysis which plays unique and complementary roles on stock valuation. The results indicate Malaysian investors used fundamental analysis tools greater than other emerging markets and risk analysis tools greater than developed markets. Therefore, the Malaysian investors differ from other investors in developed and emerging markets. The results of responses of H-Investors were in conformity with L-Investors. Thus, the results of this study can be extended to a wide range of Malaysian investors.

The remainder of the paper is organized as the following. Section 2 provides a review of the existing literature on stock valuation by investors in developed and emerging markets. Section 3 discusses research method and sample selection for constructing interviews. Section 4 provides empirical findings of stock valuation approaches by Malaysian investors. Lastly section 5 concludes.
Literature Review:

The beginning of the stock valuation process by investors described by Fama (1965), who stated the worth of a security evaluate by relating it to various factors of investors who affect on price. Most studies on the stock valuation process have consulted investors and analysts from developed nations (Arnold and Moizer, 1984; Arnold et al., 1984; Day, 1986; Pike et al., 1993; Barker, 1998; Meulbroek, 2001; Hall and Murphy, 2002; Hodge et al., 2006). But the studies on stock valuation by investors in emerging markets are rare (Al-AbdulQader and Hannah, 2007; Wang et al., 2007; Tijjani et al., 2009). In the main research, Arnold et al. (1984) compared the investment valuation methods employed by UK and US analysts. In this study, a questionnaire was sent to 505 UK analysts and 400 members of the US Financial Analysts Federation. The analysts were asked a range of questions on the valuation methods adopted, the forecast approaches employed and the information sources used. The results indicated few differences between UK and US analysts. Although, both groups of analysts perceived the income statement and balance sheet to be the most important sources of information, US analysts rated them as being more influential than did their UK counterparts. In addition, the US group undertook more formal analysis and tended to use fundamental analysis more than their UK counterparts.

Day (1986) interviewed analysts from 18 UK stockbroking firms to investigate the usefulness of financial statements for investment analysis. She found that the interviewees considered financial statements to be an important source of information about the future prospects of a company. In addition to analysts, Barker (1998) also used interviews with fund managers to examine how security investment decisions were made. The study revealed that analysts regarded the company itself as being the most important source of information, although results announcements and analysts’ meetings were also ranked highly as information sources. Pike et al. (1993) investigated the stock valuation techniques employed by UK and German analysts. They found that, despite the introduction of new technology in the UK stock market during 1986, little change was recorded in the valuation techniques used by analysts; they still tended to employ fundamental analysis. The study also discovered that, although fundamental analysis was the most popular in stock valuation technique among the UK analysts, technical analysis was most popular in Germany. Furthermore, the German analysts placed more emphasis on non-financial information than their UK counterparts. Finally, both UK and German analysts appeared to be more interested in the long-term rather than short-term goals of their investee firms.

Hall and Murphy (2002) estimate, under reasonable risk aversion and diversification assumptions, that the value of an option to a risk-averse employee can be as little as 21% of the option’s B-S value. Further, they conduct simulations to show that higher risk aversion, lower wealth and greater concentration of wealth in the company stock is negatively related to their estimates of subjective option valuations. Meulbroek (2001) makes a similar attempt to assess the efficiency loss of forcing employees to hold an undiversified portfolio with a concentrated exposure to their employer’s stock. She estimates that managers at a NYSE-listed company with all their assets tied to the firm’s stock price would value typical options at 70% of their cost to the firm. Also, Hodge et al. (2006) gather data from 77 current mid-level managers and 111 future entry-level managers, to investigate how they value stock. Hodge et al. (2006) refer to current and future manager groups collectively as managers. They supplement manager data with a dozen field interviews with senior executives. They find that managers, on average, systematically overvalue stock that relative to both the Black-Scholes (B-S) value. Thus, contrary to conventional economic thinking, many risk-averse agents do not appear to discount B-S values of stocks. Further, in valuing stocks, managers value quick vesting and extended expiration. Managers also extrapolate recently rising stock price trends to arrive at their subjective valuations of stock. In general, our results suggest that a combination of economic, behavioural and demographic factors explain managers' subjective valuations of stock.

Very few studies have examined how investors in emerging markets value stocks (Al-AbdulQader et al., 2007; Wang et al., 2007; Tijjani et al., 2009). Al-AbdulQader et al. (2007) investigated the stock valuation approaches employed by Saudi investors, using 224 questionnaires administered between January and March 2001. The findings indicated that fundamental analysis was the main stock valuation technique used while risk analysis was ranked second. In addition, Wang et al. (2007) investigated how stocks valued by financial analysts in China. Key results from the study indicated that most participants preferred fundamental analysis over risk analysis. However, Tijjani et al. (2009) in one of the main investigations in emerging markets indicates that the interviewees employed fundamental analysis in Nigeria. Investors and brokers forecast earnings for a company and multiplied this prediction by a P/E ratio to estimate the intrinsic worth of a share. This intrinsic value was then compared with the current share price to see if the equity was under- or over-valued. Technical and risk analyses were also undertaken to supplement any initial conclusions reached. Indeed, the findings of Tijjani et al. (2009) suggest that there was a greater use of risk analysis by investors in comparison to the results documented for developed countries. Kheradyar and Ibrahim (2011) test the predictive power of financial ratios as the empirical predictors, which are used by Malaysian investors. Kheradyar et al. (2011) indicate that financial ratios, can predict stock return in Malaysia as risk analysis tools. Company financial statements and audit reports were the main sources of information used by investors.
The past studies indicated that the financial statement as fundamental analysis has the main role in stock valuation by investors in developed and emerging markets. But, the role of risk analysis in stock valuation is different. The role of technical analysis in most of developed markets was important but the degree of application was after fundamental analysis. In some of emerged market, the role of technical analysis increased in comparison with developed market but the role of political analysis completely was different because the role of political analysis in emerged market was important but in developed market, the important of political analysis in stock valuation was decreased.

**Research Method And Sample Selection:**
Among qualitative research methods, a semi-structured interview is more appropriate than other methods for this study, because a semi-structured interview is flexible, allowing new questions to be brought up during the interview as a result of what the interviewee says. Indeed, the interviewer in a semi-structured interview generally has a framework of themes to be explored, which is according to the purpose of this research. Based upon an analysis of the literature, a series of semi-structured interview questions is developed to explore the idea and valuation approaches of the investors. The semi-structured interview contained eight main questions, which sought background details about the respondents; the type of information used to evaluate stocks and the details about the sources and/or the ways of any information employed. The responses ascertain the answer to questions in the questionnaire that fill in by the researcher. The answer to each question described by the interviewees in details, and the analysis was performed in a systematic structure.

The sample of the research was conducted by twenty interviews, and each interview lasted for approximately thirty minutes. The basis of the selection process of interviewees was adjusted with volume of stock trading, because the focus of this study is an acquaintance with stock valuation approaches that lead to extension of stock trading volume. Therefore, a semi-structured interview is applied to two groups, a group of investors with high stock trading volume that buy and/or sell stocks approximately every week, and a group of investors with low stock trading volume that buy and/or sell stocks every six months. The two groups make an appropriate composition of mutual standpoints. These interviewees were selected because each of the groups had a great deal of knowledge and experience about Malaysia's stock market and stock valuation approaches. Most of the participants were highly educated (80%) and more than half of the interviewees (60%) had an academic background in finance or related fields. Half of interviewees were aged between 30-39 years old, and another half of interviewees were aged between 40-49 years old. The time horizon of the research is one-short of the year 2011, May, which is a month that stock trading is often on high volume in Bursa Malaysia.

**Results:**
The results of the investors’ responses to the series of semi-structured interview questions are classified in three tables in accordance with the valuation approaches. Table 1 show the results of the interviewees’ responses to the source of consultation, which contains information about the firms, institutions and persons as the consultants of investors in each group. The results of the responses to the first question of the interview recognized that one of the main sources of consultation received by investors is consulting with experienced friends, who are related with investors. The respondents expressed very practical reasons for using experienced friends as resources, such as trust, time and money saving. Indeed, most investors believe that the experienced friends are as a best consultant to analysis the political issues. The results of H-Investors in comparisons with L-Investors clearly show that the considerable percentage of L-Investors (30%) utilized no consultation in their stock valuation; however, the percentage of H-Investors, who did not use consultation is low (15%).

**Table 1: The Results of the Investors’ Responses to the Source of Consultation**

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Financial Institution</th>
<th>Member of Charter (CFA holders)</th>
<th>Firm Managers</th>
<th>Experienced Friends</th>
<th>Other Sources</th>
<th>No Consultation</th>
</tr>
</thead>
<tbody>
<tr>
<td>H-Investors</td>
<td>10 %</td>
<td>5 %</td>
<td>0 %</td>
<td>70 %</td>
<td>0 %</td>
<td>15 %</td>
</tr>
<tr>
<td>L-Investors</td>
<td>0 %</td>
<td>0 %</td>
<td>0 %</td>
<td>70 %</td>
<td>0 %</td>
<td>30 %</td>
</tr>
</tbody>
</table>

Notes: H-Investors mean investors with high stock trading volume, L-Investors mean investors with low stock trading volume.

Table 2 provides a summary report of the investors when using fundamental analysis in stock valuation. Most studies of developed markets have highlighted that fundamental analysis is the most widely employed approach to stock valuation (Arnold and Moizer, 1984; Arnold et al., 1984; Day, 1986; Pike et al., 1993). Indeed, fundamental analysis is the most popular approach used by the Malaysian investors. All the investors studied financial statements for fundamental analysis. Profit and loss statement, balance sheet, cash flow and audit report are four main parts of financial statements of firms, which are widely used by investors in stock valuation.

The whole of investors took advantage of profit and loss statement and balance sheet. However, 20% of H-Investors and 30% of L-Investors did not use of cash flow and only minority of interviewees (30%) considered audit report in fundamental analysis. The profound reason of implausibility of cash flow is the report framework.
which is based on accounting standards. As, most of Investors stated that cash flow might mislead investors in stock valuation, because of the cash flow reported based on accounting standards. The reason of disinclination to use audit report is because of the information of audit reports is inefficient in stock valuation. Indeed, the audit report is based on observation on the accounting standards that is not related to stock value, which changes based on firm plans.

However, the minority of investors (30%), who consider to audit report stated the validity of the audit report can affect on stock price, such as if the audit report record the problems in a company, the exchange of stock price goes down. The results of H-Investors’ responses to fundamental analysis are close to the results of L-Investors’ responses. Malaysian investors approximately similar to developed markets use fundamental analysis in stock valuation (Arnold and Moizer, 1984; Arnold et al., 1984; Day, 1986; Pike et al., 1993), however the average of past trend in developed markets was longer than Malaysia. Such as, half of investors used five years financial statement and another half investors used two years financial statement.

Table 2. The Results of the Investors’ Responses to Utilization of Fundamental Analysis

<table>
<thead>
<tr>
<th>Interviewee</th>
<th>Profit and Statement</th>
<th>Loss Balance Sheet</th>
<th>Cash Flow</th>
<th>Audit Report</th>
</tr>
</thead>
<tbody>
<tr>
<td>H-Investors</td>
<td>Yes 100%</td>
<td>Yes 100%</td>
<td>Yes 80%</td>
<td>Yes 30%</td>
</tr>
<tr>
<td>L-Investors</td>
<td>Yes 100%</td>
<td>No 0%</td>
<td>No 20%</td>
<td>No 70%</td>
</tr>
</tbody>
</table>

Notes: H-Investors mean investors with high stock trading volume, L-Investors mean investors with low stock trading volume. Profit and loss statement, balance sheet, cash flow and audit report are four main parts of financial statements of firms, which are widely used by investors in stock valuation.

Table 3 provides a summary report of the investors when using risk analysis in stock valuation. The entire investors have paid considerable attention to risk analysis. Therefore, the risk analysis tools are very important for Malaysian investors. The risk analysis tools include technical analysis tools and political analysis tools. The technical analysis tools include stock market statistics, trends in stock price movements, trends in trading volume and mathematical formula to predict stock value. The political analysis tools involve the government’s news and decisions that effect on the stock market.

All the investors apply graphs of past trends in stock price, and trends in trading volume as major important tools of risk analysis. Indeed, all of H-Investors use stock market statistics and government policies as risk analysis tools, but a minority of L-Investors (10%) did not use stock market statistics and government policies in their stock valuation process. Although, a considerable percentage of total investors (40% of H-Investors and 50% of L-Investors) did not point to the details of risk calculation based on the mathematical formula, the most investors placed a heavy emphasis on the role of risk calculation formula for stock valuation process. Most of the investors believed that government political is the first step in stock valuation. Moreover, the quantity and quality of information about government policies are directly related to accuracy of stock valuation by investors. Therefore, political analysis has the critical role on stock valuation by Malaysian investors. This finding is different from the results reported for developed countries. In studies of developed countries, low percentage of interviewees used technical and political analysis tools (Arnold and Moizer, 1984).

Table 3: The Results of the Investors’ Responses to Utilization of Risk Analysis

<table>
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</tr>
</thead>
<tbody>
<tr>
<td>H-Investors</td>
<td>Yes 100%</td>
<td>Yes 100%</td>
<td>Yes 100%</td>
<td>Yes 60%</td>
<td>Yes 100%</td>
</tr>
<tr>
<td>L-Investors</td>
<td>Yes 90%</td>
<td>No 0%</td>
<td>Yes 100%</td>
<td>Yes 50%</td>
<td>Yes 90%</td>
</tr>
</tbody>
</table>

Notes: H-Investors mean investors with high stock trading volume, L-Investors mean investors with low stock trading volume. Market statistics, trends in price, trends in volume, and risk calculation formula are indicators of technical risk analysis. Government policies are indicators of political risk analysis, which are widely used by Malaysian investors in stock valuation.

Overall, the entire investors paid considerable attention to about 90 per cent of risk analysis tools and 55 percent of investors employed mathematical formula to evaluate stock price, which the rate is higher than the developed markets. Moreover, the findings show the consideration of risk analysis by Malaysian investors is greater than emerging markets. Such as, Al-AbdulQader et al. (2007) suggested that investors seemed to consider risk analysis, which indicate a lower level of consideration to risk analysis. However, risk analysis is the major important instrument in stock valuation by Malaysian investors. The average of all investors who used fundamental analysis in stock valuation is about 76%. However, the average of all investors who used risk analysis has increased to about 91%.
Conclusion:
The main purpose of this study is to investigate how Malaysian investors evaluate stocks. In particular, three objectives have been answering. First, to recognize the source of consultation, which contains information about the firms, institutions and persons as the consultants of investors. One of the main sources of consultation received by investors is consulting with experienced friends, who are related with investors. Second, to examine whether the investors use fundamental analysis and/or risk analysis differently to stock valuation. Most of the investors use fundamental and risk analysis tools in the stock valuation process. The utilization level of risk analysis are greater than fundamental analysis by Malaysian investors. All the investors studied financial statements for fundamental analysis. Profit and loss statement and balance sheet are very essential parts of financial statements, which are widely used by investors in stock valuation. Risk analysis tools divide into technical analysis and political analysis. The trend in stock price, the trend in stock trading volume and stock market statistics are popular tools of risk analysis, and risk calculation by the specific formula has most importance among Malaysian Investors. The investors believe that the political analysis is directly related to accuracy of stock valuation. Therefore, the political analysis plays unique and complementary roles on stock valuation. Contrary to expectation, the results of responses of H-Investors were in conformity with L-Investors. Thus, the results of this study can be extended to a wide range of Malaysian investors.

Third, to see whether there are differences between the investors of Malaysian market, as an important emerging market, and investors of developed and other emerging markets. The previous research documented the role of fundamental analysis and risk analysis in stock valuation. The finding suggests the fundamental analysis is the main instrument in stock valuation that is similar to the findings of previous research in the developed markets. However, the use of risk analysis is greater than developed markets and close to other emerging markets. In addition, the use of fundamental analysis by Malaysian investors is greater than other emerging markets. Therefore, the Malaysian investors differ from other investors in developed and emerging markets. In risk analysis, Malaysian investors tended to look at political risk and technical risk precisely and the level of usage of political risk and technical risk is more than developed countries. Therefore, political analysis has the critical role in stock valuation by Malaysian investors, but the role of political analysis was disappeared in some of the developed market. Also, the view of Malaysian investors to technical risk is different from investors in developed countries because most of Malaysian investors focused on details of technical risk such as the financial formula. The financial formula. The Malaysian investors prudentially make an appraisal of the stocks; therefore, reduction in risk analysis by more attention to political and technical tools can increase the stock value, whereas, increase in stock value will extend stock trading volume, and might help to stock market development in Malaysian.

REFERENCES


