



## Age of Firms and the Value of Analyst Recommendation

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### ABSTRACT

**Objective** – This paper assesses the value of information disclosure in Malaysian analyst reports by examining three categories of firms, according to their age (young, medium and old).

**Methodology/Technique** – The study uses a market-adjusted method to calculate the cumulative abnormal return and panel regression to test the research objective. The results from the unbalanced panel data reveals that not all information contained in the analyst reports is able to detect the movement in stock returns.

**Findings** – Younger firms recorded two significant results (ROE and SPR) whereas among medium aged firms, TP, CFP, SPR, and MC all had an impact on CAR. The older firms showed that TP, EF, ROE and SPKLCI had an impact on CAR.

**Novelty** – This qualitative inquiry reveals that Malaysian analyst reports tend to disclose information based on simple statistical analyses to formulate recommendations whilst ignoring other significant qualitative information.

**Type of Paper:** Empirical.

**Keywords:** Age; Value; Analyst Report; Malaysia.

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**JEL Classification:** G30, G32, G39.

### 1. Introduction

Globalization has contributed to the extreme speed at which the market moves in contemporary society which has contributed to the increased cost of market information and the general inability for most investors to process that information. This, in turn, has contributed to the increased prevalence of insider trading. Because of this, investors try to access market information in other ways. In this way, the role of an analyst is very important; they act as an intermediary between the market and its' investors in respect of sharing and accessing information relevant to the company's performance.

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Although there is an extensive body of literature that focusses on analyst reports in various lights, little attention has been given to the value of an analyst report in respect of firms of various ages. This is because, typically, analysts prefer to recommend older firms to investors because they are well-established and low risk. However, older firms tend to be transitioning towards stabilization, whereby heavy competition reduces profit, which results in stock price depreciation. This may also cause analysts to produce an unfavorable report or a negative recommendation. This study will examine this situation having regard to the value of an analyst recommendation for firms of various ages.

This study represents breakthrough research which focuses on a novel issue in the context of Malaysia. This study is expected to make two significant contributions to the area of study. Firstly, this study is exploratory in nature, dealing with the information content of analyst reports and the age of firms in Malaysia. This distinguishes the study from previous studies conducted in Malaysia. Secondly, the study aims to improve information efficiency and better utilization and allocation of economic resources and quicker price discovery.

## **2. Literature Review**

Asquith et. al. (2005) theorized that the realization of target price derived by an analyst comprises approximately 54.28 percent. If this is true, a company's share price would increment a maximum of 37.27 percent over the target price in a one-year framework. If this was indirect, the company's minimum share price would be lower than the target price of approximately 15.62 percent. This study determines the significance and accuracy of analyst reports for the benefit of investors. The study also examines whether early accessibility to analyst reports will lead to abnormal profits (Kim & Verrecchia, 1997; Green, 2006).

Employing an event study and OLS with a timeframe spanning between 1997 and 1999, Asquith et. al. (2005) identified the presence of a positive and significant relationship between return and one-level to three-level upgrade stock recommendation revisions over three days. Womack (1996) conducted a study to analyse price drift resulting from recommendations. Womack concluded that there is a strong price drift whenever the recommendation was positive and vice versa (Thaker, 2018). Furthermore, the price drift lasted for at least for six months post-recommendation. This conclusion has been supported by many subsequent studies. For example, positive recommendations and favorable positive information has been shown to encourage investors to buy shares in particular, thus generating significant abnormal returns. The same findings were also concluded by Guagliano et. al. (2013) and Da and Schaumburg (2011).

Chen et. al. (2005) shows that an analyst report has little utility in detecting price movement. This is because the reports do not capture price reactions when the price is higher than the average without a report. Loh and Stulz (2011) agree with this proposition. Belcredi et. al. (2003) reached the same findings, demonstrating that when upgrade recommendations are provided, excess, positive returns are achieved at 2.52 percent, whereas negative, decreased returns at 2.63 percent are obtained as a result of downgrade recommendations over a three day period. Abnormal return was already in subsistence even before the event date.

Research conducted by Madun (2008) is the best example of research that has examined the role of the analyst employed in the Malaysian market. Madun's (2008) dissertation focuses on the effect of incentive schemes on analyst coverage among companies participating in the scheme. The results of the regression analysis showed that analyst coverage schemes did not have a significant impact on investors. That research also hypothesized that analyst reports significantly benefitted certain markets and did not benefit other markets.

## **3. Research Methodology**

We used 657 analyst reports (downloaded from Bursa Malaysia) in this research. The daily analyst reports from January, 2010 to December, 2015 were used. The number of companies examined were selected based

on their market capitalization, including companies from all three age categories. The age of the firms was determined based on their date of incorporation and the date that their analyst reports became available to investors.

Table 3.1. Summary of Young, Medium and Old Age Firms

Variable	Observation	Mean	Standard Deviation	Minimum	Maximum
Young age	219	12.16207	6.049020	0.028194	20.86944
Medium age	219	27.90549	4.479773	20.91111	38.25000
Old age	219	46.81405	6.002656	38.48333	65.91000

Note: This table shows the descriptive statistics of young, medium and old aged firms. The number of observations for each was 219.

### 3.1 Empirical Specifications of Cumulative Abnormal Return (CAR)

The calculation of CAR and panel regression analysis was achieved using a similar approach to that adopted by Chen and Chu (2009). The CAR for day t is:

$$CAR_t = \sum_i^t \overline{AR_T} \tag{Equation 1}$$

For the purpose of analysis, this research utilized panel regression analysis to determine the relationship between CAR and information content in the analyst reports. The final regression model incorporates all 15 information contents in the analyst report. The variables are: target price (TP), earnings forecast (EF), trading volume (TVOL), return on equity (ROE), dividend per share (DPS), earnings per share (EPS), share price per KLCI (SPKLCI), cash flow to price (CFP), sales to price ratio (SPR), market to book value (MBV), Market Capitalisation (MC), price to earnings ratio (P/E), size of analyst report (SA), pages and number of shareholders. The equation is as follows:

$$CAR_{i,t} = \beta_0 + \beta_{1i}(TP)_{1i} + \beta_{2i}(EF)_{2i} + \beta_{3i}(TVOL)_{3i} + \beta_{4i}(ROE)_{4i} + \beta_{5i}(DPS)_{5i} + \beta_{6i}(EPS)_{6i} + \beta_{7i}(SPKLCI)_{7i} + \beta_{8i}(CFP)_{8i} + \beta_{9i}(SPR)_{9i} + \beta_{10i}(MBV)_{10i} + \beta_{11i}(MC)_{11i} + \beta_{12i}(P/E)_{12i} + \beta_{13i}(SA)_{13i} + \beta_{14i}(Pages)_{14i} + \beta_{15i}(SH)_{15i} + \varepsilon_i \tag{Equation 2}$$

We also carried out interview sessions with investors (retail and institutional) to obtain further feedback on the reliability of information disclosure in analyst reports.

## 4. Discussion

### 4.1 Panel Data Analysis for Young Aged Firms

As stated in Table 4.1, based on the FEM-Robust results, ROE and SPR were found to be statistically significant to CAR with an R-Squared value of 0.59 percent. As young age firms are relatively new in the market, their ROE tends to increase slowly, subsequently influencing the return of stock in a positive way. Furthermore, investors usually target young growth stocks for investment purposes as these stocks tend to

have increased stability with marginal increases (Mantri, 2008). Although ROE is in favor of young age firm, those firms also face higher risk. Hence, market uncertainty is high, causing their performance and their profits to fluctuate. Thus, their valuation may also be negative, as depicted in the findings whereby SPR has a negative relationship with CAR.

#### 4.2 Panel Data Analysis for Medium Aged Firms

The R-Squared value for FEM-Robust was 7.47 percent with four variables having a significant effect on CAR. Firstly, TP is negatively associated with CAR. Analysts tend to cover medium aged firms as they have been in the market for some time and are able to maintain a competitive edge. Since the firms in this category have minimal competition, analysts tend to lower their TP. This is consistent with the findings of Shawawreh and Tarawneh (2015) which found that CFP has a negative relationship with CAR, meaning that when the CFP valuation is higher, stock prices will be lower, and vice versa. The author argues that this may be due to systematic volatility and idiosyncratic risk. SPR is also negatively associated with CAR, which is consistent with the findings of Lau et. al. (2002) in which the authors found a conditional, negative relationship between stock price and sales to price ratio in Malaysia and Singapore. Finally, MC and CAR were found to be positively related, indicating that medium aged firms are able to enjoy some benefits due to their large size as the stock prices of those firms are comparatively less volatile than young firms because medium firms have a semblance of stability in both local and international markets.

#### 4.3 Panel Data Analysis for Old Aged Firms

The R-Squared value was relatively low compared to other age groups which was 0.08 percent. Those results suggest the significance of four variables which were TP, EF ROE and SPKLCI towards CAR. Out of those four variables, only one variable was found to be negatively related to CAR, which was TP. Old organizations may have better skills, abilities, and stability, however, there is no clear evidence to suggest that these features will make old firms more likely to success compared to others. Loderer and Waelchli (2009) found that old firms tend to have a lower return on assets and Tobin's Q. This leads to a decrease in profit margins, a slow growth of sales, and an increase in the cost of production. That could explain why TP and CAR have a negative relationship in this context. EF ROE, SPKLCI were found to have a positive relationship with the CAR among old firms.

Table 4.1. Panel Data Analysis for Young, Medium and Old Age Firms

Independent Variables	Young Age Firms	Medium Age Firms	Old Age Firms
<b>FEM-Robust</b>			
<b>Dependent Variable: CAR</b>			
TP	0.2684 (0.4609)	-0.5158*** (0.1519)	-0.1983*** (0.0470)
EF	-0.0053 (0.0113)	0.0185 (0.0211)	0.0718*** (0.0165)
TVOL	0.1205 (0.1828)	-0.0640 (0.1601)	0.0385 (0.1116)
ROE	0.1159** (0.0336)	-0.0006 (0.0099)	0.0428** (0.0170)

DPS	-0.0254 (0.0351)	-0.0072 (0.0292)	-0.0011 (0.0185)
EPS	0.0056 (0.0140)	-0.1058 (0.1002)	0.0238 (0.0409)
SPKLCI	-0.0365 (0.0221)	0.0603 (0.0384)	0.0669* (0.0353)
CFP	-0.0452 (0.0330)	-0.0531* (0.0317)	-0.0192 (0.0232)
SPR	-0.0674* (0.0392)	-0.1114** (0.0292)	-0.0190 (0.0457)
MBV	-0.0024 (0.0310)	-0.0662 (0.0432)	-0.0087 (0.0253)
MC	-0.1767 (0.3106)	0.2340* (0.1360)	-0.0664 (0.1681)
P/E	0.0174 (0.0142)	0.0108 (0.0442)	0.0330 (0.0424)
SA	-0.1182 (0.0956)	0.1672 (0.1088)	0.0128 (0.1577)
Pages	0.2611 (0.1667)	-0.2116 (0.1838)	0.0500 (0.1789)
SH	-0.0613 (0.2640)	-0.2529 (0.2367)	0.0215 (0.1616)
Constant	-1.1201 (3.2917)	6.6494* (3.3550)	1.5436 (1.4961)
R <sup>2</sup>	0.59%	7.47%	0.08%
F-test	2.9100*	9.7700***	76.0200*

Note: Markings of \*, \*\*, \*\*\* denote significance at 10%, 5% and 1% respectively. FEM-Robust refers to Fixed Effect Model based on Standard Robust Errors. The robust standard errors are in parentheses for FEM-Robust. The number of observations include: FEM-Robust – 219. The cumulative abnormal return (CAR) was calculated based on market-adjusted model. The timeframe used was daily basis spanning from January, 2010 to December, 2015. The Variance Inflation Factor (VIF) = 1.15, Correlations = <0.70, Anova P- value is significant. Hausman Test = chi2(15): 35.08, Prob > chi2: 0.0024, Heteroscedasticity = Breush – Pagan/ Cook – Wiesberg Test for Heteroscedasticity = chi2(1): 119.53, Prob >chi2: 0.0000, Wooldridge test for Auto – Correlation = F (1,77): 5.3250, Prob > F: 0.0237.

#### 4.4 Discussion of Interview Analysis

We asked the following question to the selected interviewees (user of analyst report).

Do analyst reports supply enough information to investors in terms of quantitative and qualitative information?

Interviewee	Feedback
1	I think it is very straightforward. It is very clear that most of the reports are focusing their analysis based on one angle only which is fundamental analysis.
2	There are issues of informational content particularly the absence of qualitative information. I suggest that some information can be incorporated in analyst's report such as economy analysis and industry analysis
3	Simple ratio can be used as guidance but not fruitful method. Need some qualitative information in the report.
4	Various quantitative information in the report are derived from historical value which may not be able to give indicative information as the investment market is quite dynamic. It must be something beyond numbers.

## 5. Conclusion

To summarize, ROE and SPR have a significant impact on CAR among young firms whereas TP, CFP, SPR, and MC have a significant impact among medium aged firms. In respect of older firms, TP, EF, ROE and SPKLCI have a significant relationship with CAR. Thus, not all of the information contained in an analyst report has a statistical association with CAR. With respect to the enhancement of information disclosure, the current study found that Malaysian analysts tend to rely heavily on statistical justification alone in making recommendations. The qualitative results suggest that analysts should consider incorporating both quantitative and qualitative information which will lead to more comprehensive disclosure of information, an improvement which is deemed necessary in light of the importance of analyst reports for investors.

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