Abstract
This paper examines how earnings management affects the share markets’ reaction to earnings announcements by timing the announcement dates and the information content of timing the announcement beyond the actual earnings announced. The annual and interim earnings response coefficients of listed firms in Bursa Malaysia provide evidence on the relationship between the timing of earnings announcement and the direction and magnitude of annual and interim earnings for more than 4912 firm-years. The results confirm that firms time their earnings announcement based on the direction and magnitudes of the unexpected earnings. Firms announce earnings early for positive unexpected earnings, and delay the announcement for negative unexpected earnings. The market reacts to the timing of the announcements differently. The timing of annual earnings received more vigorous responses than interim earnings announcements. These findings are relevant and useful to judge company performance by looking at the timing of announcement the company earnings.

Keywords: Annual and interim report release; Earnings management; Directional and magnitude; Timing; Earnings response coefficients.

JEL Classification Codes: G14; G24; G3.

1. Introduction
Price effect of information in developed capital markets has been extensively researched and has documented that price changes are affected by information and that accounting earnings is a subset of information affecting share prices. Recently, evidence from the Asia Pacific region (Cheng et al 2001, Arif et al 1997) have documented a robust price-to-earnings relationship but of lesser magnitude than that documented in developed markets.

One of the desired qualitative characteristics of financial reporting is timeliness. In fact, managers place much importance on the timing of earnings announcement and adjust their earnings announcement dates (Chen and Mohan (1994). The theory of earnings management and conservation, that is, whether bad news in financial statements is captured faster than good news is well documented in the literature. Basu (1997) reported that firms delay the announcement of unexpected loses (“bad news”) or speed up the announcement of unexpected gain (“good news”). These findings are consistent with the ‘Conservatism’ in the accounting discipline that dictates pessimistic attitude when choosing accounting techniques for financial reporting.

Whilst annual and interim reports are important source of information to stakeholders, their relevance depends on the timely release of these information. To further substantiate the evidence on the issue of earnings management and timing the release of information through annual and interim earnings reports in an emerging market, this paper address this issue using a sample of annual and interim earnings announcements of firms listed on Bursa Malaysia, and its impact on firm’s value.

2. Literature review
Sinclair and Young (1990) examined the association between the timeliness of half-yearly report for Australian firms and the abnormal stock price behavior around the time of the announcement. They conclude that ‘good’ news is released earlier than ‘bad’ news.

Haw, Qi and Wu (2000) analyzed the timeliness of annual report releases and market reaction to earnings announcement in China. They reported that firms with good news release their annual reports

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earlier than firms experiencing losses (bad news). They also observe a significant price reaction to annual earnings announcements for both early (good news) and late (bad news) reporting firms. The findings are consistent with Chambers and Penman (1984) and Bagley and Fisher’s (1998) findings that firms unexpectedly accelerate the release of good news and delay the disclosure of bad news relative to their previous reporting pattern.

Chen, Cheng and Gao (2005) find that firms that are willing to make early announcements, tends to surprise the market, as indicated by the higher volume and price reactions, compared to lower volume and price reactions for later announcements. Their results indicate that an information asymmetry exists between early and late earnings announcements in China.

There are many studies on the information content of other accounting numbers beyond accounting earnings. Jenning’s (1990) review of two previous studies (Rayburn 1986; Bowen et al. 1987) provides consistent and strong evidence that both cash flow and accrual components add to the informativeness of income. However, there is only weak and inconsistent evidence that accrual components of income are valued differently from cash flow components by investors.

Ali (1994) estimates the linear model of annual stock returns with changes in earnings, working capital from operation, and cash flows. The results suggest that earnings have incremental information content beyond working capital and cash flows, and working capital has incremental information content beyond earnings and cash flows. But, the cash flows have no incremental information relative to earnings and working capital.

Ali and Pope (1995) re-examined another incremental information content study of earnings, fund flows and cash flows by using non-linear model for UK data, which include current level of earnings together with the change in earnings as complementary proxies for the unexpected components of earnings. The results show that earnings have higher relative information content than both fund flows and cash flows. Other studies by Collins and Clubb (1995) and Cotter (1996) find mixed results. In the US, there is ample evidence on the information content of interim financial reports (Hagerman, Zmijewski and Shah 1984, Swaminathan and Weintrop 1991).

Opong (1995) examines the issue of whether interim financial reports in the UK contain value relevant information and concludes that interim financial reports contain material information on the day the reports are released. Schadewitz (1996) investigates the association between interim earnings and security prices in Finland and reports that interim earnings explained unexpected interim returns. Interim reports are not audited or are prepared long time before an audit is done, therefore the contents might be too tentative and subjective without a potential audit opinion hence should be less important than annual earnings.

Lev’s (1989) review of relevant theories and evidence on the usefulness of earnings research over the 1980 and 1988 period suggests that though investors do use earnings reports to gauge the financial health of a firm, the extent of earnings usefulness is rather limited.

Findings on the returns-to-earnings relationship is well documented in the literature and characterized by continuous attempts to further validate this relationship through refinements, such as controlling for revenue (Swaminathan and Weintrop, 1991), firm size (Chaney and Jeter, 1993), leverage effect (Dhaliwal, Lee and Farger, 1991) and auditor choice (Shamsher and Cheng, 2001). However, the evidence from these studies is inconclusive.

3. Objectives
The major objective in this paper is to ascertain that firms unexpectedly accelerate the release of good news and delay the disclosure of bad news relative to their previous reporting pattern. The abnormal returns will also vary according to the dates of the announcements. The second objective is to ascertain whether changes in announcement dates affect share prices in response to the information content in the announcements.

4. Data and methodology
Sample Selection
The earnings announcements dates are collected from the Bursa Malaysia’s (formerly known as the Kuala Lumpur Stock Exchange) Daily Diary for a random sample of 160 firms over a 10-year period.

(Jan 1988 to July 1997). The total sample size is 4914 earning announcements, comprising of 2482 annual earnings announcements and 2431 interim earnings announcements. After screening and removal of non-earnings-related disclosures the sample consists of 430 annual earnings announcements and 254 interim earnings announcements.

**Methodology**

The impact of timing of earnings announcements and earnings changes on stock price is evaluated using the standard event study methodology. The abnormal returns are estimated by taking the difference in the realized and expected returns. The expected return is estimated using market model as shown in equation 1.

$$\text{Abnormal Returns: } AR_{it} = R_{it} - [\alpha_i + \beta_i R_{mt}] \quad (1)$$

Where, $AR$ is the abnormal returns

with $R_{it} = \ln \left( \frac{P_{it}}{P_{i(t-1)}} \right)$ and $R_{mt} = \ln \left( \frac{I_t}{I_{t-1}} \right)$,

where, in addition to terms already defined, $\ln$ is natural logarithm and $I$ refers to market's composite index.

The market parameters $\alpha_i$ and $\beta_i$ are estimated over trading periods, –60 months to –3 month relative to the announcement month. The returns were adjusted for thin-trading bias using Fowler-Rorke’s method (1983). The resulting risk-adjusted abnormal returns of each observation at any time over the test window is added and averaged across all the observations to obtain the average abnormal return ($\text{AAR}_t$). The accumulation is done over a price reaction window of –50 to +1(CAR 50).

Next the average abnormal returns over $t = 1, \ldots, T$ is cumulated as follows:

$$\text{CAR} = \sum_{t=1}^{T} \text{AAR}_{it} \quad (2)$$

where, CAR is the cumulative average abnormal return

$\text{AAR}_i$ is the average abnormal return for firm $i$ at time $t$.

**Analysis of Unexpected Accounting Earnings**

Unexpected earnings are computed using the naive expectation model, which assumes that the next period's expectation is simply the current period's earnings. This is also consistent with the design of the study to investigate the contemporaneous effect of price change at a point in time.

Raw unexpected earnings (RUEs) are computed using the naive model:

$$\text{RUE}_{it} = E_{it} - E_{i(t-1)} \quad (3)$$

$E_{it} =$ Earnings for firm $i$ at time $t$.

The unit normal variables are estimated as follows:

$$\text{SUE}_i = \frac{\text{RawUE}_i}{\sigma_{(UE)i}} \quad (4)$$

where $\sigma_{(UE)i}$ is standard deviation of UE.

This transformation, which mitigates the effect of changing variance or heteroscedasticity on the variables, yields unexpected value of earnings variable adjusted for volatility differences, $\sigma_{(UE)i}$.

**Analysis of Shift in the Earnings Announcement dates**

In this paper two dates of announcement are used; the first date is the day of announcement from the year-end dates (DYE) and second is the day of announcement from the mean announcement dates, which is the unexpected shift in earnings announcement dates (UAD).

Unexpected shift in earnings announcement dates are computed using current period's earnings announcement dates less the previous period average announcement dates. The values will be either negative or positive, where negative means a shift in earlier announcement and positive means a delay in announcement. This is also consistent with the research design to study the contemporaneous effect of price change at a point in time.
Unexpected earnings announcement dates (UAD\textsubscript{it}) are computed using as follow:
\begin{equation}
UAD\textsubscript{it} = AD\textsubscript{it} - MAD\textsubscript{it-1}
\end{equation}
where
- \textit{UAD\textsubscript{it}} is Unexpected Announcement dates, in days
- \textit{AD\textsubscript{it}} is Announcement dates, in days
- \textit{MAD\textsubscript{it-1}} is Average announcement dates, in days.

**Sample Grouping**
Grouping of samples has an advantage of reducing the errors-in-variables problem: (Beaver \textit{et al.}, 1979, 1980, 1987; Ariff \textit{et al.}, 1997). The portfolios were formed from the sampled firms first by ranking all stocks according to the magnitude of unexpected announcement dates (UAD). To form 4 quartiles, the twenty five percent of the stocks with the highest rank on the UAD ranking are placed in the first quartile. The next highest twenty five percent in the second quartile, and so forth until the fourth quartile contains the last twenty five percent of the observations with the lowest unexpected announcement dates (UAD).

Then an independent sample test is conducted on the difference of mean for the first and the fourth quartile on the days of announcement from financial year-end, the days of announcement from the previous mean announcement dates, the raw unexpected earnings, the standardized unexpected earnings, the CAR(50) and CAR (1).

The relationship between the unexpected earnings and cumulative abnormal returns is examined using equation (6).
\begin{equation}
CAR\textsubscript{it} = a + b*SUE\textsubscript{it} + e\textsubscript{it}
\end{equation}
where,
- \textit{CAR\textsubscript{it}} is some measure of risk-adjusted return for security \textit{i} cumulated over period \textit{t},
- \textit{SUE\textsubscript{it}} is a measure of standardized unexpected earnings, and
- \textit{e\textsubscript{it}} is a random disturbance term assumed to be normally distributed.

The slope coefficient of the regression, \textit{b}, is called the earnings response coefficient (ERC).

**Timing in Earnings announcement dates**
The shift in earnings announcement dates is assumed to be synonymous with the firms timing their earnings announcement based on the magnitudes of the unexpected earnings. Therefore shift in earnings announcement dates variable is included into the regression to test the effect of timing of earnings announcement on ERC on listed firms in the \textit{Bursa Malaysia}. Two dummy variables (D) are used to signify the early and late earnings announcements in the regression.
\begin{equation}
CAR\textsubscript{i} = a_1 + a_2*SUE\textsubscript{i} + a_3*D_1 + a_4*D_2 + e\textsubscript{i}
\end{equation}
where,
- \textit{CAR\textsubscript{i}} : Cumulative Abnormal returns over a specified window,
- \textit{SUE\textsubscript{i}} : Standardised Unexpected Earnings,
- \textit{D_1} : Dummy variable taking a value of:
  - 1 for firms that announce earnings early (1\textsuperscript{st} quartile firms), and
  - 0 for others.
- \textit{D_2} : Dummy variable taking a value of:
  - 1 for firms that announce earnings late (4\textsuperscript{th} quartile firms), and
  - 0 for others.

A significant coefficient for early announcement dates \textit{a_3} or late announcement dates \textit{a_4} would support the notion that timing has information content beyond unexpected earnings. A positive value is expected for \textit{a_3} as firms that earn positive unexpected earnings are expected to make early announcements. A negative value for \textit{a_4} is expected as firms with negative earnings are expected to delay earnings announcements.

**5. Findings**

**Annual earnings announcements**
Panel A of Table 1 shows the descriptive statistics for the days of annual announcement from the financial year-end, the unexpected earnings and the cumulative abnormal returns. The days of annual announcement from the financial year-end have a mean of 89 days (approximately 3 months).
standard deviation is 23 days. The minimum number of days for firms to make their annual announcement of their year-ends results is 36 days, slightly more than a month. The maximum number of days for firms to make the year-end results annual announcement is 161 days (approximately more than 5 months) in this sample. The descriptive statistics also show that some firms have shifted the annual announcement day earlier by 48 days and some have delayed their annual announcement dates from previous period mean annual announcement dates by 69 days. The raw unexpected earnings have a mean and standard deviation of 2.576 cents per share and 10.918 cents per share respectively. The minimum raw unexpected earnings of firm is -40.7 cents per share (loss). The maximum raw unexpected earning is 50.2 cents per share (gain). The 50 days risk adjusted cumulative abnormal earnings has a mean and standard deviation of 0.4% and 11.2% respectively. The minimum risk-adjusted cumulative abnormal return is –36.1% and the maximum risk-adjusted abnormal accumulative abnormal return is 35% during earnings announcement.

Table 1: Descriptive statistics for days of announcement, unexpected earnings and cumulative abnormal returns for full test sample (Panel A), 1st quartile (Panel B) and 4th quartile (Panel C)

<table>
<thead>
<tr>
<th>Panel A: Full Test Sample</th>
<th>Annual Test Sample: n = 430</th>
<th>Interim Test Sample =254</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indices</td>
<td>Mean</td>
<td>Std. D.</td>
</tr>
<tr>
<td>DYE</td>
<td>89</td>
<td>23</td>
</tr>
<tr>
<td>UAD</td>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td>RawUE</td>
<td>2.576</td>
<td>10.918</td>
</tr>
<tr>
<td>SUE</td>
<td>0.291</td>
<td>0.903</td>
</tr>
<tr>
<td>CAR50</td>
<td>0.004</td>
<td>0.112</td>
</tr>
</tbody>
</table>

Panel B: 1st Quartile (Early Announcements)

<table>
<thead>
<tr>
<th>Annual Test Sample: n = 104</th>
<th>Interim Test Sample =65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indices</td>
<td>Mean</td>
</tr>
<tr>
<td>DYE</td>
<td>78</td>
</tr>
<tr>
<td>UAD</td>
<td>-16</td>
</tr>
<tr>
<td>RawUE</td>
<td>3.816</td>
</tr>
<tr>
<td>SUE</td>
<td>0.412</td>
</tr>
<tr>
<td>CAR50</td>
<td>0.034</td>
</tr>
</tbody>
</table>

Panel C: 4th Quartile (Late Announcements)

<table>
<thead>
<tr>
<th>Annual Test Sample: n = 104</th>
<th>Interim Test Sample =65</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indices</td>
<td>Mean</td>
</tr>
<tr>
<td>DYE</td>
<td>113</td>
</tr>
<tr>
<td>UAD</td>
<td>19</td>
</tr>
<tr>
<td>RawUE</td>
<td>0.964</td>
</tr>
<tr>
<td>SUE</td>
<td>0.132</td>
</tr>
<tr>
<td>CAR50</td>
<td>-0.024</td>
</tr>
</tbody>
</table>

Indices: DYE = the number of days from announcement dates to Financial year-end dates
         UAD = the number of days between the announcement dates to the previous mean announcement dates
         RawUE = Raw Unexpected Earnings = this year earnings minus last year earnings
         SUE = Standardized Unexpected Earnings
         CAR(50) = Cumulative Abnormal Returns from -50 to +1 days.

Panel B of Table 1 shows the descriptive statistics of the 1st and 4th quartile of the test sample. The 1st quartile of the sample consists of 104 firms that announce annual earnings earlier by 6 to 48 days from the previous average annual announcement dates (mean announcement dates) or these firms announce their annual earnings from 36 to 123 days from their year-end dates. Their mean UAD is 16 days earlier than their mean annual announcement dates or 78 days from the year-end dates. These firms have raw unexpected earning of 3.816 cents per share respectively. The mean CAR50 is 3.4%.
Panel C of Table 1 shows the descriptive statistics of the 4th quartile of the test sample. The 4th quartile consists of 104 firms that have delayed the annual earnings announcement. The 4th quartile firms delay their annual earnings announcements by 6 to 69 days from their previous average annual announcement dates or these firms announce their annual earnings from 57 to 161 days from their year-end dates. Their mean UAD is 19 days later than their mean annual announcement dates or 113 days from the year-end dates. These firms have a mean raw unexpected earning of 0.964 cents per share. The mean CAR50 is -2.44%

Interim earnings announcements

Panel A of Table 1 (columns 6 to 9), shows the descriptive statistics for the days of interim announcement from the mid-financial year-end, the unexpected earnings and the cumulative abnormal returns. The days of interim announcement from the mid-financial year-end have a mean of 67 days (approximately 2 months). The standard deviation is 21 days. The minimum number of days for firms to make their interim announcement of their mid-year-ends results is 21 days, slightly less than a month. The maximum number of days for firms to make the mid-year-ends results interim announcement is 164 days (approximately more than 5 months) in this sample. The descriptive statistics also show that some firms have shifted the interim announcement day earlier by 52 days and some have delayed their interim announcement dates from previous period mean interim announcement dates by 76 days. The raw unexpected earnings have a mean and standard deviation of 1.23 cents per share and 6.28 cents per share respectively. The minimum raw unexpected earning (RUE) of firm is -26 cents per share (loss). The maximum raw unexpected earning is 32.5 cents per share (gain). The 50 days risk adjusted cumulative abnormal earnings has a mean and standard deviation of 0.01% and 18.9% respectively. The minimum risk-adjusted cumulative abnormal return is -103% and the maximum risk-adjusted abnormal accumulative abnormal return is 126% during interim earnings announcement.

Panel B of Table 1 (columns 6 to 9), show the descriptive statistics of the 1st and 4th quartile of the test sample. The 1st quartile of the sample consists of 104 firms that announce interim earnings earlier by 6 to 52 days from the previous average interim announcement dates (mean interim announcement dates) or these firms announce their interim earnings from 21 to 94 days from their mid-year-end dates. Their mean UAD is 16 days earlier than their mean annual announcement dates or 78 days from the mid-year-end dates. These firms have raw unexpected earning of 1.66 cents per share. The mean CAR50 is 3.13%.

Panel C of Table 1 (columns 6 to 9) shows the descriptive statistics of the 4th quartile of the test sample. The 4th quartile consists of 104 firms that have delayed the interim earnings announcement. The 4th quartile firms delay their interim earnings announcements by 6 to 76 days from their previous average interim announcement dates or these firms announce their interim earnings from 33 to 164 days from their mid-year-end dates. Their mean UAD is 19 days later than their mean annual announcement dates or 113 days from the year-end dates. These firms have a mean raw unexpected earning of 0.59 cents per share. The mean CAR50 is -1.45%

Table 2: Frequency Distribution of Earnings Announcement based on Days after the Mean Announcement Date (UAD): Annual (Panel A) and Interim (Panel B)

<table>
<thead>
<tr>
<th>Panel A: Annual: n = 430</th>
<th>Days</th>
<th>&lt;-30</th>
<th>-30 to -15</th>
<th>-15 to -5</th>
<th>-5 to +5</th>
<th>+5 to +15</th>
<th>+15 to +30</th>
<th>&gt;+30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>10</td>
<td>37</td>
<td>76</td>
<td>203</td>
<td>63</td>
<td>23</td>
<td>19</td>
<td></td>
</tr>
<tr>
<td>Percent</td>
<td>2%</td>
<td>9%</td>
<td>18%</td>
<td>47%</td>
<td>15%</td>
<td>5%</td>
<td>4%</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Panel B: Interim: (n = 254)</th>
<th>Days</th>
<th>&lt;-30</th>
<th>-30 to -15</th>
<th>-15 to -5</th>
<th>-5 to +5</th>
<th>+5 to +15</th>
<th>+15 to +30</th>
<th>&gt;+30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td>7</td>
<td>18</td>
<td>40</td>
<td>116</td>
<td>47</td>
<td>22</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Percent</td>
<td>3%</td>
<td>7%</td>
<td>16%</td>
<td>46%</td>
<td>19%</td>
<td>9%</td>
<td>2%</td>
<td></td>
</tr>
</tbody>
</table>
Table 2 shows the frequency distribution of the earnings announcement date based on the day after the financial year-ends (Panel A) and previous mean announcement dates (Panel B). Panel A shows that all the frequency distribution of firms that announce their earnings early and later than their previous mean announcement dates. Most of the firms have maintained their announcement dates within five days from their previous mean announcement dates (47%). Some of the firms (18%) have announcements earlier by 5 to 15 days and some (15%) have delayed their announcement by more than 5 to 15 days. Panel B shows the frequency distribution of the interim earnings announcement from their mean announcement dates. Most of the firms have maintained their announcement dates within five days from their previous mean announcement dates (46%). Some of the firms (16%) have announcements earlier by 5 to 15 days and some (19%) have delayed their announcement by more than 5 to 15 days. The two distributions are close to each other. Figure 1 plotted the distribution and shows that they are of similar shapes and close to normal.

Table 3: Independent samples test for 1st quartile (early announcement firms) and 4th quartile (delay announcement firms) samples t-test for equality of means

<table>
<thead>
<tr>
<th>Indices</th>
<th>Annual Mean Difference</th>
<th>t-values</th>
<th>Significant (2-tailed) p-values</th>
<th>Interim Mean Difference</th>
<th>t-values</th>
<th>Significant (2-tailed) p-values</th>
</tr>
</thead>
<tbody>
<tr>
<td>D Yr-end</td>
<td>-35</td>
<td>-13.087</td>
<td>0.000***</td>
<td>-33</td>
<td>10.37</td>
<td>0.000***</td>
</tr>
<tr>
<td>UAD</td>
<td>-35</td>
<td>-20.258</td>
<td>0.000***</td>
<td>-33</td>
<td>17.41</td>
<td>0.000***</td>
</tr>
<tr>
<td>RawUE</td>
<td>2.852</td>
<td>2.165</td>
<td>0.032*</td>
<td>1.075</td>
<td>0.938</td>
<td>0.350</td>
</tr>
<tr>
<td>SUE</td>
<td>0.280</td>
<td>2.381</td>
<td>0.018*</td>
<td>0.179</td>
<td>1.280</td>
<td>0.203</td>
</tr>
<tr>
<td>CAR50</td>
<td>0.057</td>
<td>3.605</td>
<td>0.000***</td>
<td>0.017</td>
<td>0.519</td>
<td>0.605</td>
</tr>
</tbody>
</table>

Note: Significant at p=0.05 (*), p=0.01 (**), and p=0.001 (***). For details of indices, please refer to Table 4.

Table 3 (columns 2 to 4) summarize the independent samples t-test for the 1st quartile (firms that announce annual earnings early) and the 4th quartile (firms that announce annual earnings late). The results show that the days from the annual announcement dates to the financial year-ends have a t-value of -13.087, which is significant at 0.000 level. Similarly, the t-statistics for the days of annual announcement from their previous mean announcement dates is -20.258, significant at 0.000.
level. The raw unexpected earnings and the standardized unexpected earnings have t-statistics of 2.165 and 2.381 respective which are significant at 0.05 level. The 50-days risk-adjusted cumulative returns (CAR50) have a t-statistic of 3.605, significant at 0.000 level. All the above results indicate that the firms that announce annual earnings early are different from the firms that announce annual earnings late in term of their unexpected earnings and the share price revaluation. The magnitudes are such that the firms that announce annual earnings early have a higher raw unexpected earning (RUE) and larger cumulative abnormal return for unexpected return (CAR50). This is consistent with the literature in develop markets that firms time their earnings announcements dates based on the direction and magnitudes of their earnings. The pricing behavior of Malaysian listed firms is similar to the firms in other developed countries, that is the tendency of management to delay announcing bad news.

Table 3, (columns 5 to 7), summarize the independent samples t-test for the 1st quartile (firms that announce interim earnings early) and the 4th quartile (firms that announce interim earnings late). The results show that the days from the interim announcement dates to the mid-financial year-ends have a t-value of –10.37, which is significant at 0.000 level. Similarly, the t-statistics for the days of interim announcement from their previous mean interim announcement dates is –17.41, significant at 0.000 level. The raw unexpected earnings and the standardized unexpected earnings have t-statistics of 0.938 and 1.280 respective which are not significant at 0.05 level. The 50-days risk-adjusted cumulative returns (CAR50) have a t-statistic of 0.519, not significant at 0.05 level. The above results indicate that for the interim announcement dates, the firms that announce interim earnings early are not different from the firms that announce interim earnings late in terms of their unexpected earnings and the share price revaluation. The magnitudes are such that the firms that announce interim earnings early have a same raw unexpected earning (RUE) and same cumulative abnormal return for unexpected return (CAR50). This is inconsistent with the findings on annual earnings announcements dates based on the direction and magnitudes.

Table 4: Regression Results For Returns-to-Earnings Relation For Firms announce earnings early (1st Quartile) and late (4th Quartile)

<table>
<thead>
<tr>
<th></th>
<th>Annual: n=105</th>
<th>Interim: n=65</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Model 1</td>
<td>Total test</td>
<td>1st quartile</td>
</tr>
<tr>
<td>Independent</td>
<td>sample</td>
<td>Early</td>
</tr>
<tr>
<td>Constant</td>
<td>-0.008</td>
<td>0.014</td>
</tr>
<tr>
<td></td>
<td>(-1.380)</td>
<td>(1.205)</td>
</tr>
<tr>
<td></td>
<td>(0.168)</td>
<td>(0.230)</td>
</tr>
<tr>
<td>SUE</td>
<td>0.038</td>
<td>0.047</td>
</tr>
<tr>
<td></td>
<td>(6.580)</td>
<td>(3.840)</td>
</tr>
<tr>
<td></td>
<td>(0.000***</td>
<td>(0.000***</td>
</tr>
<tr>
<td>R-Square</td>
<td>0.094</td>
<td>0.125</td>
</tr>
<tr>
<td>F-Statistic</td>
<td>43.29</td>
<td>14.74</td>
</tr>
</tbody>
</table>

Note: Figure in parenthesis is t-values, significant at 0.05 (*), 0.01 (**), and 0.001 (***) levels

Table 4, (columns 2 to 4) show the regression results of the CAR (50) as dependent variables and SUE as independent variable for annual announcements. The regressions were done for full test sample, early announcements sample and late announcement sample. For the annual announcements sample, the Model 1 of the regression shows that the SUE has a coefficient of 0.38 with a t-statistics of 6.58, significant at 0.000 level. Next, looking at the regression results of the early annual announcement sample, the SUE coefficient is 0.47 with a t-statistic value of 3.84, significant at 0.000 level. The regression results of the late annual announcement sample, the SUE coefficient is 0.038 with a t-statistic value of 2.97, significant at 0.004 level. The R-square values for full test, early and late annual
announcements sample are 9.4%, 12.5% and 8.0% respectively. From these results, we can conclude that early annual announcement sample has received the most vigorous responses from the investors, whereas the late annual announcement has received less significant responses from investors in term of the magnitude of the slope of the SUE coefficients and R-square value. Figure 2 plots the respective curves and shows that the early annual announcements sample has the highest magnitudes and slope as compare to the full test annual announcements sample and the late annual announcements sample.

![Figure 2: Plot of CAR and SUE for early, late and total annual announcement sample](image)

Table 4, (columns 5 to 7) shows the regression results of the CAR (50) as dependent variable and SUE as independent variable for interim announcements. The regressions were done for full test sample, early announcements sample and late announcement sample. For the interim announcements sample, the Model 4 of the regression shows that the SUE has a coefficient of 0.0.57 with a t-statistics of 4.281, significant at 0.000 level. Next, looking at the regression results of the early interim announcement sample, the SUE coefficient is 0.062 with a t-statistic value of 2.211, significant at 0.031 level. The regression results of the late interim announcement sample, the SUE coefficient is 0.074 with a t-
statistic value of 2.58, significant at 0.012 level. The R-square values for full test, early and late annual announcements sample are 6.9%, 7.2% and 9.5% respectively. These findings suggest that late interim announcement sample has received the most vigorous responses from the investors, whereas the full test annual announcement has received less significant responses from investors. Figure 3 plots the respective curves and the early interim announcements sample has the higher magnitudes as compare to the full test annual announcements sample and the late interim announcements sample.

Finally, comparing the results for annual and interim earnings announcements, annual earnings announcements are more significantly priced by investors than the interim earnings announcements. The firms that announce their annual earnings early received more vigorous responses than the late annual earnings announced. Similarly, Figure 3 shows that in the case of interim earnings, investors response to the early interim announcements stronger than the late announcements, however, the slope or the late interim earnings announcement is steeper than the early interim earnings announcement. This might be due to the difference in the information content of the annual and interim earnings announcements. The majority of the annual announcements were made three or four months after the financial year-ends, whereas the interim earnings announcements were announced mostly within two and three months of the scheduled date. Furthermore, the annual announcements were mostly audited announcement, and the interim earnings announcements were all non-audited accounts. Thus, some users have argued that the interim results announced are too tentative and subjective without a potential audit opinion hence perceived as less important than annual earnings.

Table 5: Regression Results For Returns-to-Earnings Relation For Firms announce earnings early (1st Quartile) and late (4th Quartile)

<table>
<thead>
<tr>
<th>Model</th>
<th>Annual: n=430</th>
<th>Interim: n=254</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Independent Variable</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Constant</td>
<td>-0.015</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(-2.563)</td>
</tr>
<tr>
<td></td>
<td>SUE</td>
<td>0.037</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.000***)</td>
</tr>
<tr>
<td></td>
<td>De</td>
<td>0.034</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(2.850)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.004**)</td>
</tr>
<tr>
<td></td>
<td>Dl</td>
<td>-0.043</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(-2.353)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(0.019**)</td>
</tr>
<tr>
<td></td>
<td>R-Square</td>
<td>0.107</td>
</tr>
<tr>
<td></td>
<td>F-Statistic</td>
<td>26.07</td>
</tr>
<tr>
<td></td>
<td>VIF</td>
<td>1.006</td>
</tr>
</tbody>
</table>

Note: Figure in parenthesis is t-values, significant at 0.05 (*), 0.01 (**), and 0.001 (*** levels

Table 5 shows the regression results of the CAR (50) as dependent variable and the SUE, D, and D (Dummy variables) as independent variables. The variable SUES are highly significant in all the 6 regression models. In Model 1, the dummy variable D has a t-statistics of 2.85, significant at 0.01 levels. The R-square values have improved from 9.4% (Table 4, Model 1) to 10.7 %. This indicates that the firms that announce annual earnings early have a positive significant coefficient, which means there is positive information content beyond unexpected earnings. The Model 2 shows that D has a t-statistics of -2.535 significant at 0.05 levels. Therefore, the variable D represents firms that announced

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annual earnings late have information content beyond unexpected earnings and the effect is negative to
the earnings-returns relation. Model 3 is the regression of all the independent variables. Variables SUE
and Dl are highly significant. The R-square values have increased from 9.4% again to 11%. Although
the increase is marginal, however, it does provide evidences that information on the timing of firms that
announce annual earnings have information content beyond earnings

The coefficients for Dl and Dl are 0.034 and -0.043 respectively. This show that the firms in quartile 1
that announced earnings early have a 3.4% higher returns than the rest, whereas the firms in quartile 4
that announced earnings late has a negative 4.3% in their returns to earnings announced. These results
further confirms the direction and magnitude effect of these annual earnings announcements.

Table 5, (columns 4 to 6) shows the regression results of the CAR (50) as dependent variable and the
SUE, Dl and Dl (Dummy variables) as independent variables for interim earnings. In these regression
all the coefficients for Dl and Dl were not significant, therefore, implies that timing of interim earnings
announcements have no value to the investors. There were no significant responses from investors to
the timing of the interim earnings announcements, the investors focused on the magnitude of the
interim earnings per se during announcements. Therefore, there is no information content beyond the
interim earnings announcements for timing the interim earnings releases.

6. Conclusion

This paper investigates the timeliness of the annual and interim earnings reports announcements and
the direction and magnitudes of unexpected earnings and the market reaction to these announcements.
The findings suggests that the direction and magnitudes of the unexpected earnings are different
between the firms that release their annual reports early and the firms that release annual reports late.
Markets reaction to these releases as measured by the risk-adjust cumulative returns also show
significance difference. The effects on the timing of interim earnings announcement however are less
pronounced.

The Malaysian firms announce positive unexpected earnings early and announce negative unexpected
earnings late. Unable to hide bad news due to the mandatory disclosure requirements, Malaysian firms
have turned to delaying their announcement of annual reports with bad news. Alternatively, the
Malaysian firms’ managers are more concerned about internal evaluation that directly effects their
compensation. Therefore, they usually require more time to prepare responses, or announce it together
with good news that comes along. The above literature confirms the timing behavior of Malaysian
firms.

The investors react more vigorously to financial reports that are announced early, and response to the
delay of earnings announcements with less enthusiasm by reacting less vigorously for late earnings
announced. This is consistent with Cheng’s et. al. (2001) evidence that investors price share value
closely to unexpected earnings.

In conclusion, the evidence shows that the direction and magnitudes of earnings affect the time of the
annual reports releases, and the market reacts to the announcements expectedly. It substantiates the
evidence on the timing behavior of Malaysian listed firms in Bursa Malaysia, shows the direction and
magnitudes of earnings that effect the timing behavior and investors’ positive reaction to early
announcements. Finally, the results show that investors perceive more information content in annual
earnings announcements compared to interim earnings announcements.

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