

TRENDS AND CALENDAR EFFECTS IN MALAYSIA'S STOCK MARKET

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Abstract

Investing can help a person's wealth to generate more, and investing in stock is proven as one of the most profitable forms of available investment. The benefits gained in stock broking are immediate Buy/Sell which investor can sell part of their investment any time and at low transaction cost. However, investing in stock will require investor to observe the market, as market can be a volatile place and investor need to acquire knowledge of what they actually are doing. This study will discuss the price trends over the year, and how it will get affected by the seasonality in Malaysia, which also known as the calendar effects. The factor to be investigated in this study is the price on holiday's season, the January effect or any other monthly seasonality. The daily price of KPJ Healthcare Berhad for the year 2011 is the sample was chosen in this study. Further this study, data used is derived from the weak-form efficient markets hypothesis, which is the price history and case study. Regression method is used in this study in order to help achieving the findings. This should be a continuous study, and adding on more other factors, such as wars and economic crises, and traders, investors and other speculators.

Keywords: Stock, Malaysia, Calendar effect, Investment and KPJ Healthcare Berhad

JEL Classification: G10

1. Introduction

Calendar effects is an anthology of various theories that believe on certain days, months or times of year will be in the above-average or below-average price changes in market indexes, which consequently represent excellent or terrible period to trade. Chin (2012) believes that psychological biases restrain the traders from making 'rational' decisions, which also may due to speculators that rise on festive season. Tahir (2008) discussed that the occurrence of seasonality in stock market involves the possibility of gaining normal return by market timing strategies, but their continuation is believed to be an anomaly since it is depart from the Efficient Market Hypothesis (EMH). Gao and Kling (2005) believed that calendar effects will not affect the market in a long term as investors will learn from their previous experience. Garg, Bodla and Chhabrathe

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(2010) propose that stock markets are still sensitively involved with the seasonal anomalies although the growing use of information technology and various narrow growths.

There are believes that stock price falls each time festive season arrived. According to Gao and Kling (2005), the literature on monthly effects is linked to tax-loss trade scheme and behavioural characteristics. Rozeff and Kinney (1976) demonstrated that US's stock market return are extensively larger in the first month of the year compared to other months. Cole, Kastens, Hampel, & Gow (1999) advise that the seasonality may rise the profit opportunity provided historically chronic seasonal patterns continue into the future.

Other than that, it might due to speculation which investor selling their holding in order to gain cash in return. After festive ended, they will again buy new holding, from the bonuses they gained. Nevertheless, efficiency of the market plays a big role. Efficient market is a protection scheme to investors where the investors will only get the same profit as other investors and also protection against large losses. However, if a calendar effect actually exists, for a short term, trading based on a monthly sample of income should yield astonishing income.

Previously, various studies were performed to verify the effect of calendar anomalies to the stock market. These studies were held worldwide, and also in different markets and each researcher used diverse occasion gap in order to get findings. Normally, the standard experimental findings are reliable with the occurrence of a calendar effect. As argued by McGowan and Yakob (2008), these conclusions encourage advance study into the issue by enlarge the scale of study further than western calendar effects.

McGowan and Yakob (2008) also believed that most of the documented empirical findings are consistent with the presence of a calendar effect. Each country have different main festive season and so does Malaysia. Since Malaysia is a country with various ethnics, it celebrates more festive than other countries. In Malaysia, there are four main festive seasons which are Hari Raya Aidilfitri, Chinese New Year, Deepavali and Christmas. Apart from that, there are also few Bumiputeras (native people of the land) festive of such as Thaipusam and Wesak Day.

Hari Raya Aidilfitri can be considered the main festival season in Malaysia, entertained by population in Malaysia. This followed by Chinese New Year, which is the second entertained by population in Malaysia. It is behind logical when people consider that the stock market will reaches its highest level before the Chinese New Year celebration. Most investors in Malaysia keep stocks as their asset, and will need to liquidate them when they are in need of quick cash.

This paper is generally discussing on the four main seasons, together with January effect and weekend effect. Based on previous studies, this study is designed to gain further support that can be used to discover and clarify the valid existence of calendar effect. Data used in this study is a year stock price of the year 2011 of KPJ Healthcare Berhad, which is traded in Bursa Malaysia. The findings will be added with literature review of previous studies done for the understanding of stock price behaviour.

2. Literature review

Borges (2009) in her study advises that there is no strong proof of across-the-board calendar effects, as the majority flattering facts is only country-specific. This is due to different country has different holiday breaks, will eventually affect their trading behaviour.

It is believed that in every festive season, the stock price falls, due to speculator which is investor will sell their stock to get back return in cash term. After the festive season ends, they will again start investing, to gain more wealth. As in Malaysia, there are four main festive seasons, which is Hari Raya Aidilfitri for Muslim, Chinese New Year for Buddha, Deepavali for Indian and Christmas for Christian.

The most important calendar anomalies that bring effect to most of world's stock price are the January effect and the day-of-the-week effect. The January Effect, which also known as the

turn-of-the-year was first observed by Persons in 1919. as argued by Gao and Kling (2005), the main reason that are believed effect the tendency of realize losses in December are due investor want to decrease the tax amount they needed to pay at the end of the year.

Sutheebanjard and Premchaiswadi (2010) testify that the day-of-the-week effect, which also known as weekend effect, is the trend of stocks to reveal comparatively large returns on Fridays compared with Mondays. The studies on day-of-the-week effect have been fragmentary since 1930 by Kelly.

2.1 The main calendar anomalies in the world stock market

There are various studies performed to clarify the existence of calendar anomalies in the world's stock market. Sullivan, Timmermann and White (1998) argued on this topic using 100 years of daily data and a bootstrap method. They found that these anomalies are no longer remain significant in the current stock market, but they believe that further study should be perform by using different set of variables and methodologies. Hansen, Lunde, and Nason (2005) believe in order to clarify the consequence of calendar effects, it is essential to organize the entire anomalies to avoid data mining biases and also false results. Using 25 stock indices and simple generalize-F test, from ten countries as data, they found that element of time difference in calendar effects is not reliable with methodical seasonal variation in stock market.

Gultekin Brothers (1983) used a nonparametric test developed by Kruskal and Wallis (1952), and was able to proof the existence of seasonal patterns in the stock markets in most of the major industrial countries especially in January. To proof this, they use indices prices gathered from the International Financial Statistics from January 1959 until December 1979.

Hellström (2002), checked data which covers 207 stocks on the Swedish stock market from year 1987 to 1996, and was able to confirm the existence of day-of-the-week and month-of-the-year effects. Although the present of these anomalies is relatively small compared to other factors, the effects are big enough to manipulate other forecast algorithms.

A study in US's stock market which consists of data from 1 July 1963 to 31 December 2008 was performed by Grimbacher, Swinkels and Vliet (2010), and verified that Halloween and turn-of-the month bring strongest effects fully diminishing January effect, weekend effect and holiday effect to zero. However, in opposed to that, Brusa, Hernandez and Liu (2011) examined a daily returns daily stock returns of 30 firms in the Dow Jones Industrial Average (DJIA) index, the NASDAQ index which their sample period are between January 4, 1988 to December 30, 2005 and found that the trading volume and illiquidity have a momentous effect on Monday stock returns. However, they were unable to illuminate the reverse weekend effect. Lamb, Ma, Pace and Kennedy argued using data from 1897-1993 using various test including T-tests, Dummy variable and Regressions advised that overwhelming majority of positive returns in the stock market - over the last century occur when the U.S. Congress is in recess. They also cited that the relationship between stock market performance depends either U.S. Congress is in session or not.

2.2 Studies in Asia market

Mustafa (2011), using the Karachi Stock Market as benchmark argue the effect of Islamic months in Karachi. Using a daily data from December 1991 to December 2010 and dummy variable methodology, he agreed with Ramadan effect in Karachi's stock market. In other hand, Bepari and Mollik (2009) used series of data from Bangladesh Dhaka Stock Exchange represent all Share Price Index for the period from 1993 to 2006, they found the existence of 'April effect' instead 'January effect'. In response to that, they also added that a non-weak form efficient market means that investors may gain above average return.

There are several studies were performed in relates to calendar anomalies consists of Malaysia's stock market. However, there conflict findings in those studies.

Using data collected from 1976 until 1990, As, Yen and Shyy (1993) agreed with the existence of Chinese New Year effect in Hong Kong, Japan, Malaysia, Singapore, South Korea and Taiwan. However, their findings only prove the effect before the Chinese New Year, not after the festive day. Besides that, Keong, Yat and Ling (2011) using a set of data which consists of daily observations from 11 Asian stock markets, their a study is to identify the existence of month-of-the-year effect on stock returns and volatility in eleven Asian countries which are Hong Kong, India, Indonesia, Japan, Malaysia, Korea, Philippines, Singapore, Taiwan, China and Thailand. They conclude that “most of the Asian stock markets exhibit positive December effect, except Hong Kong, Japan, Korea, and China. Meanwhile, few countries do exhibit positive January, April, and May effect. Only Indonesia exhibits negative August effect.”

Ali, Nassir, Hassan and Zainal Abidin (2006) verify the existence of Chinese New Year effect using dummy variables from January 1987 to December 2006. Mei, Chong and Dollery (2007), also using a dummy variable agreed with the existence of monthly patterns in Malaysia's stock market between January 2004 to December 2006, which also believed to be the period of “Asian contagion”. Study by Tahir (2008), using multiple regression and GARCH approach, agreed that stock return a week after Chinese New Year and Friday significantly higher compared with other days, but it is not volatile. Data used by in the study are from January 1998 to December 2007.

Chee, Khim and Wafa (2006) argue that existence of a daily pattern of calendar anomalies in the Malaysian stock market using Ordinary least Squares (OLS), GARCH and GARCH – M GARCH and TGARCH model. They indicated that Monday and Friday effects appear primarily throughout the pre-crisis phase but those anomalies had become trivial, implying it were due to the market volatility.

Lean and Tan (2010) suggest that the day-of-the-week effect does play a role in Bursa Malaysia, but only in MESDAQ Index. Hooi, Smytha and Wong (2006) performed a study using data from January 1, 1988 December 31, 2002; they believed that calendar effects largely disappearing from Asian markets. According to McGowan Jr and Yakob (2010), there are no significant findings on the Aidilfitri effects in Malaysia, may due to small number on Malay's investor in Malaysia's stock market. Data used in their study are sample from year 2000 to 2003, using a summary approach.

3. Data and methodology

Factors which believe to be the dependant variables in this study consist of five factors are January Effect, Day-of-the-week Effect, Aidilfitri Effect, Chinese New Year Effect and Christmas Effect. The reason these variables were chosen is due to highly believe that this effect may bring the maximum effect to share's prices in Malaysia. These effects may boost the price to achieve it highest, and even it lowest.

The data used in this study are collected from Bursa Malaysia's website besides the company's website for long back data history. Other than that, previous case study using multiple sources also used in this research for more reliable and understanding findings.

For further investigation coefficient correlation method were used to define the relationship between the variables. The hypotheses of this study are;

- H₁₁: The calendar anomaly that brings effect to Malaysia's stock price is Hari Raya Aidilfitri.
- H₁₂: The calendar anomaly that brings effect to Malaysia's stock price is Chinese New Year
- H₁₃: The calendar anomaly that brings effect to Malaysia's stock price is Christmas.
- H₁₄: The calendar anomaly that brings effect to Malaysia's stock price is January Effect.
- H₁₅: The calendar anomaly that brings effect to Malaysia's stock price is Day-of-the-week Effect.

The model is represented by the following equation;

$$Y = 0.477 - 0.055X_1$$

3.1 Data collection

This study employed monthly closing price of daily share's price from 3rd January 2011 through to 30th December 2011, thereby yielding a total of 247 observations. KPJ Healthcare Berhad chosen to be the benchmark in this study due to its stability in the Bursa's Indices for the past few years. Event, which is the dependant variable used in this study are;

1-Jan	: New Year's Day
3-Feb	: Chinese Lunar New Year's Day
4-Feb	: Second day of Chinese Lunar New Year
31-Aug	: Hari Raya Puasa Day 1
1-Sep	: Hari Raya Puasa Day 2
25-Dec	: Christmas Day

3.2 Reliability Test

Reliability test measure the internal steadiness and constancy of the multi-item ranges. It is also can be simplified as a coefficient of reliability. It indicates the degree in which measurement across the subject in the instrument is bias. The most reliability test that commonly used is The Cronbach's Alpha, which also used in this paper. The Cronbach's Alpha measures the internal stability among the multi-scales such as the interval level capacity.

The data in this study achieved 74.3% of Cronbach's Alpha. It implies relatively high internal consistency, which also means data used are accurate and can be used in this study.

4. Findings

By examining the t-statistics the dependant variable and the independent variables, the estimated regression shows that the estimated coefficients for the variables are statistically significant at the 1%, for Christmas and 0.5% level, for Chinese New Year.

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	4.187	.023		180.553	.000
New Year	-.012	.197	-.004	-.060	.952
Day Of The Week	.000	.036	.000	-.004	.996
Chinese New Year	-.417	.198	-.134	-2.107	.036
Aidilfitri	.133	.197	.043	.678	.498
Christmas	.373	.198	.120	1.888	.060

a. Dependent Variable: Stock Price

Table 1

From table 1, the correlations between the variables are different, where the prices remain fixed for Day-of-the-week and small coefficient for New Year. However, Chinese New Year has a negative effect on the stock price as the estimated coefficient is negative. For both Aidilfitri and Christmas, the estimated coefficients are positive, which the prices are higher between these dates. Nevertheless, the estimated coefficients for New Year, Day of the Week, Aidilfitri are not

significant statistically since all did not go beyond the p-value of 0.05 and 0.10. For better elucidation, two tailed (paired) test was performed. Both significance level of Chinese New Year and Christmas meet the significance level of 10% and 5%.

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.186 ^a	.035	.015	.27681

a. Predictors: (Constant), Christmas, Aidilfitri, Chinese New Year, New Year, Day Of The Week

b. Dependent Variable: StockPrice

Table 2

In table 2, the estimated coefficient correlation shows a relatively low linear correlation between the variables. More than that, only 3.5% of the variance of dependant variables is explained by the variance of the independent variables.

ANOVA^b

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	.662	5	.132	1.727	.129 ^a
Residual	18.466	241	.077		
Total	19.128	246			

a. Predictors: (Constant), Christmas, Aidilfitri, Chinese New Year, New Year, Day Of The Week

b. Dependent Variable: StockPrice

Table 3

Results are reported in Table 3 indicate that at the estimated regression is efficient for prediction since the F statistics implying that the null hypothesis that the regression coefficients are all zeros can be rejected at the 1% level of significance.

5. Conclusion

This paper has investigated the existence of a monthly effect in stock return of KPJ Healthcare Berhad as being published in Bursa Malaysia. The yearly data of KPJ's stock price used are from 3 January 2011 until 30 December 2011.

This paper has proved the existence of calendar anomalies in KPJ's stock price for Chinese New Effect, Aidilfitri Effect and Christmas Effect. However, the price changes are believed more likely due to the investors tormenting about central banks raising interest rates to restrain rising inflation. Other than that, for Aidilfitri Effect and Christmas Effect, further study should be perform since the raise of the stock market, may be due to the world's stock market begin to be stronger after the European sovereign debt crisis to Spain and Italy in August.

Conversely, there are positive returns for January. However, the findings are non-related to the January effect. This is because January effect arises due to tax-loss selling, which Malaysia has a different tax system compared to other countries. Shareholders in Malaysia are not necessary to pay any taxes on the return they gained from share trading.

The failure of this study is due to few reasons, which are Malaysia's stock market is not measured wholesome enough to make money from festive seasons. Secondly, the speculators that spread among Malaysia's investors are mostly will impact the stock price, as the market itself is still small.

Further study, must be made with other factors included, which is the world current economy situation. The best example is the fall of stock prices between Augusts to October are due to European sovereign debt crisis to Spain and Italy. Between these period, European's and America's faced a slow economic growth and their credit rating being downgraded.

References

- Ali, Nassir, A.M., Hassan, T., & Zainal Abidin, S. 2009. "Does Bursa Malaysia Overreact". *International Research Journal of Finance and Economics*, 175-193.
- Ashish, G.B.S.,B., & Sangeeta, C. 2010). "Seasonal Anomalies in Stock Returns: A Study of Developed and Emerging Markets". *IIMS Journal of Management Science Volume : 1, Issue : 2*, 165-179.
- Atanasovaa, C.V., & Hudson, R.S. 2010. Technical trading rules and calendar anomalies - Are they the same phenomena? *Economics Letters*, Volume 106, Issue 2, 128-130.
- Baldini, M.A., Liberatore, G., & Ridi, T. 2011. Brand Transaction Announcements and Stock Price Volatility. *Journal of Intellectual Capital* Vol. 12 No. 3, 392-406.
- Bepari, M.K., & Mollik, A.T. 2009. Seasonalities in the Monthly Stock Returns: Evidence from Bangladesh Dhaka Stock Exchange (DSE). *International Research Journal of Finance and Economics*, No. 24, 167-176.
- Borges, Mahsan. 2009. Calendar Effects in Stock Markets: Critique of Previous Methodologies and Recent Evidence in European Countries. *Portugal: School of Economics and Management, Technical University of Lisbon*.
- Boudreaux, D.O. 1995. The Monthly Effect In International Stock Markets: Evidence And Implications. *Journal Of Financial And Strategic Decisions*, Volume 8 Number 1, 15-20.
- Brusa, J., Hernandez, R., & Liu, P. 2011. Reverse weekend effect, trading volume, and illiquidity. *Managerial Finance*, Vol. 37 Iss: 9, 817 - 839.
- Carl B. McGowan, J. & Yakob, N.A. 2010. Is There An Eid al-Fitr Effect In Malaysia. *International Business & Economics Research Journal*, 11-20.
- Chia, Chee-Jiun, R., Liew, Khim-Sen, V., & Syed Azizi Wafa, S. K. 2006. Calendar anomalies in the Malaysian stock market. *MPRA Paper* No. 516 .
- Cole, C.A., Kastens, T.L., Hampel, F.A., & Gow., L.R. 1999. A Calendar Spread Trading Simulation of Seasonal Processing Spreads. *Proceedings of the NCR-134 Conference on Applied Commodity Price Analysis, Forecasting, and Market Risk Management* (pp. 221-233). Chicago, IL: <http://www.farmdoc.uiuc.edu/nccc134>.
- Frijns, B., Navissi, F., Tourani-Rad, A., & Tsai, L. 2006. Stock price performance of seasoned equity offerings completed vs withdrawn. *Managerial Finance*, Vol. 32 No. 3, Emerald Group Publishing Limited, 234-246.
- Gao, L., & Kling, G. 2005. Calendar Effects in Chinese Stock Market. *Annals of Economics and Finance*, 75-88.
- Grimbacher, S., Laurens, S., & Vliet, P.V. 2010. An Anatomy of Calendar Effects. *Social Science Research Network* .
- Gultekin, M.N., & Gultekin, N.B. 1983. Stock market seasonality : *International Evidence*. *Journal of Financial Economics*, 469-481.
- Hansen, P.R., Lunde, A., & N.J.M. 2005. Testing the Significance of Calendar Effects. *FEDERAL RESERVE BANK OF ATLANTA*.

- Hellström, T. 2002. Trends and Calendar Effects in Stock Returns. *Umeå University*, S-901 87 Umeå, Sweden Journal .
- Hooi Lean, H., & Kah Min Tan, V. 2010. Existence of the day-of-the-week effect in FTSE Bursa Malaysia. *Jurnal Pengurusan*, 31, 3-11 (lead article) [Scopus].
- Keong, L.B., Ng, D.C., & Hui Ling, C. 2010. Month-of-the-year effects in Asian countries: A 20-year study (1990-2009). *African Journal of Business Management Vol. 4(7)*, 1351-1362.
- Lamb, R.P., Ma, K.C., Pace, R.D., & Kennedy, W.F. 1997. The Congressional Calendar and Stock Market Performance. *Financial Services Review*, 19-25.
- Leana, H.H., Smyth, R., & Wong, W.-K. 2007. Revisiting calendar anomalies in Asian stock markets using astochastic dominance approach. *Journal of Multinational Financial Management Volume 17, Issue 2*, 125–141.
- Lim Li Chin, A. 2012. Psychological Biases and Investor Behaviour: Survey Evidence from Malaysian Stock Market. *International Journal on Social Science Economics & Art*, 74-80.
- Lim, S.Y., Ho, C.M., & Dollery, B. 2007. Stock Market Calendar Anomalies The Case of Malaysia. *University of New England Journal* .
- Mustafa, K. 2011. The Islamic Calendar Effect in Karachi Stock Market. *8th International Business Research Conference* (pp. 562-574). Dubai, UAE: Pakistan Business Review.
- Ng Ching Yat, D., Keong, L.B., & Hui, C. 2011. Sectoral analysis of calendar effects in Malaysia: Post financial crisis (1998-2008). *African Journal of Business Management Vol. 5(14)*, 5600-5611.
- Sah, A.N. n.d.. Stock Market Seasonality: A Study of the Indian Stock Market. *NSE India* .
- Sullivan, R., Timmermann, A.G., & White, H. 1998. Dangers of Data-Driven Inference: The Case of Calendar Effects in Stock Returns. *UCSD Economics Discussion Paper 98-16*.
- Sutheebanjard, P., & Premchaiswadi, W. 2010. Analysis of Calendar Effects: Day-of-the-Week Effect on the Stock Exchange of Thailand (SET). *International Journal of Trade, Economics and Finance, Vol. 1, No. 1*, 57-62.
- Tahir, K.M. 2008. *A study on the day of the week effect, Chinese New Year effect and UMNO General Assembly effect on the performance of Bursa Malaysia*. Kuala Lumpur: Graduate Business of School, Faculty of Business and Accountancy, University of Malaya.
- Wong, M.K., Ho, C.M., & Dollery, B. 2007. An Empirical Analysis of the Monthly Effect The Case of the Malaysian Stock Market. <http://www.une.edu.au/bepp/>.
- Yen, G., & Shyy, G. 1993. Chinese New Year Effect in Asian Stock Markets. *NTU Management Review*, 417-436.