

The Holiday Effect in Stock Markets

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Abstract--- *This paper reviews on literature review in the holiday effect, the "holiday effect" caused by the upsurge of consumer enthusiasm for the relevant industries to bring out a seasonal increase in earnings. In this context, the stock market also shows abnormal price fluctuations pre-holiday and post-holiday, namely the "holiday effect" of the stock market. After reviewing the literature on holiday effects all over the world, we then found that not matter developing countries or developed countries, they almost existing holiday effect. Two, some of the holiday are affected by culture, and some are non-culture. Last, most of the scholars examined some main index when doing research. Actually, the sector index is also very important in the research.*

Keywords--- *Stock Markets, Important in the Research, Remain Unclear.*

I. INTRODUCTION

With the deepening of economic globalization, the domestic economy continues to develop, followed by the continuous growth of personal income. Under the circumstance that people's consumption expands day by day, the consumption of holiday increases continuously, here, we call this kind of effect "holiday effect". According to Efficient Market Hypothesis ("EMH"), financial market shall always in rational and share price were traded at fair value by reflecting all available information (Fama, 1970). The investors will not beat the market by technical stock selection or market timing. Nonetheless, the existence of calendar anomalies had opposed the above notion. An anomaly refers to a phenomenon when the performance of stock market diverges to efficient market concept. Some may only occurred once and others are still observed until to-date. Whereas, calendar anomalies are refer to the propensity of financial asset returns to display certain patterns at certain times of day, month or year. These calendar anomalies can be further categories into holiday effect, day-of-the-week effect, monthly effect, turn-of-the-year and turn-of-the-month effects (Karim, Karim, & Nee, 2012). Present of anomalies proven the market inefficiency and investors thus can generate higher returns by forecasting the market movement. If certain anomalies patterns found in market, then the investors may be gained the abnormal returns through market timing strategies. The existence of calendar anomalies in financial markets has been well-studied by many researchers in the past and provided strong implication to the nation of EMH as well as investment strategies for investors. However, the causes of the phenomena still remain unclear.

The stock market is the reactor of the holiday effect in the market economy. The stock market in the People's Republic of China ("China"), poses a precious study for us in that the market as it is relatively new, and China is a developing country which has created rapid changes in its life. Since China undertakes reforming and liberalizing of their economic, the economy of China has achieved an accelerated development, and standard of living has been greatly improved. In order to conform to the trend of economic and social progress, China had begun to implement a five-day working week since May 1995. Thereafter, leisure and entertainment services have gradually become an important industry in China. On 18 September 1999, The State Council had implemented the "Annual Festival and

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Memorial Day Holidays", which increased the three-day holiday of the Spring Festival, "May 1" and "October 1", and merged with the two weekends before and after the adjustment for three consecutive years. Consequently, it has emergence of "golden week" and promoted to "holiday effect".The effect is not limited to the domestic market. Many commercial companies have targeted economic effects of the holiday, by showing a strong pre-holiday impulse. The "holiday effect" caused by the upsurge of consumer enthusiasm for the relevant industries to bring out a seasonal increase in earnings. In this context, the stock market also shows abnormal price fluctuations pre-holiday and post-holiday, namely the "holiday effect" of the stock market.

Holiday effect, also known as pre-holiday effect, which is one of a famous anomaly which refers to the observed fact that share returns typically exhibit consistent patterns around holidays, with high and consistent returns on days prior to major holidays (Marrett Worthington, 2009). The holiday effect in stock returns is well-documented in financial literature as early in 1934 by (Fields, 1934) and it is an important stock market anomaly. We shall further explore the empirical literatures pertaining to the study in following section.Much of the literature in this area deals with the economics behind the holiday effect. This paper focuses on the theoretical connotation of the holiday effect and its impact on the market.This article has a very important reference value not only to the research and development of relevant theories of holiday effect, but also to the influence of market economy.

Documentation of the Holiday Effect

Holiday effect was first identified and documented in the 1930s by (Fields, 1934). (Fields, 1934) stated the existence of holiday effect in New York Exchange and disclosed that the stock returns tend to increase during the trading days prior the holidays. However, this topic only started to gain attention among financial market researchers in late 1980s (Lakonishok & Smidt, 1989); (Pettengill, 1989). Later, (Chong, Hudson, Keasey, & Littler, 2005) suggested the pre-holiday effect is one of the best calendar effect anomalies. This result was further confirmed by (Marrett & Worthington, 2009), where they stated that one of the more well-known calendar anomalies is holiday effect.

Early Practitioner Studies or Literature

The abnormal stock return performance prior holidays (Fields, 1934) has started the discussion on stock return anomalies by holiday effect, which support that share prices during holidays are relatively higher compared to other trading time. Subsequently, the holiday effect only further explored by (Lakonishok & Smidt, 1989). According to their studies, they had found significant abnormal returns appeared on holidays in the U.S. stock exchange, between the years of 1970 to 1981. The result was further confirmed by (Pettengill, 1989) in the same year of study with bigger data set, where his study affirmed that holiday returns were significantly different compared to non-holiday returns in New York Exchange .

In later year, (Cadsby & Ratner, 1992) examined the existence of calendar anomalies particularly turn-of-month and pre-holiday effects on stock market of ten countries. In their research, they found that turn-of-month effects are very important to the United States, Canada, Australia, and so on. Nevertheless, no evidence found that turn-of-month effects observed in Japan, Hong Kong, Italy or France. On the other hand, pre-holiday effect was significant in the United States, Canada, Japan, Hong Kong and Australia. However, they have not witnessed the holiday effect

in any of the European countries covered in the study. The findings further supported by (Kim & Park, 1994) with evidence of holiday effect found in U.S., U.K. and Japan stock markets in later year.

At the same time, (Liano, Marchand, & Huang, 1992) the existence of holiday effect in over-the-counter (OTC) market by analyzing the pattern of returns from 1973 to 1989. The findings further support the presence of holiday effect with evidence of pre-holiday trading days experienced abnormal high returns in OTC market. Nevertheless, after adjustment with other documented calendar anomalies, they also concluded that day-of-the-week effect has significant contributed to the post-holiday effect, while other calendar anomalies; for instance, turn-of-the-year and monthly effect; were insignificant to the return patterns after holiday in OTC market. On the other hand, (Fabozzi, MA, & Briley, 1994) studied on the futures market from 1969 to 1989 and the result concluded holidays have been significantly contributed higher returns in futures contracts compared to non-holiday trading days. The paper also highlighted that the investors were more reluctant to take positions before holidays with supported by lower trading volume prior holiday and higher volume in the trading days after holiday.

According to the early practitioner studies or literature, many of the researchers such as (Lakonishok & Smidt, 1989);(Pettengill, 1989);(Liano et al., 1992);(Cadsby & Ratner, 1992);(Kim & Park, 1994) and (Fabozzi et al., 1994) were concurred with (Fields, 1934), which they were agreed that the holiday effect was exist and had been significant affected the returns of the stock market based on the sample of periods. However, study of (Thaler, 1987) had opposed the above with the evidence of pre-holiday effect during the periods of 1981-1986 was negative. (Ariel, 1990) also opposed and suggested that high pre-holiday returns only occurred on a day before the actual holiday. He found out that over one-third of the returns accruing to the broad market during 1963-1982 periods were attributed by the eight trading days prior to holidays for each year and the holiday effect was weak in the market. The presence of holiday effects was still under debating among the practitioners since the earlier literature and it has been prolonged until to-date.

Further Tests on Other Equity Markets

In stock markets, the study of holiday effects in developing countries is different from the mature securities markets in developed countries. The study of holiday effects in developing countries has not attracted much attention. For example, (Tong, 1992) ; (Cadsby & Ratner, 1992); (Meneu & Pardo, 2004) and (Bergsma & Jiang, 2016) have found different levels of holiday effects in stock markets in different countries.

In the United States, like many countries, Easter, Christmas, and New Year are three traditional festivals in the United States. These festivals usually hold grand events, full of rich atmosphere, and the statutory holidays such as Martin Luther King Jr. and Independence Day are performed in a solemn commemoration. (Liano et al., 1992) found that for a sample period of 1973-1989 U.S. over-the-counter stocks exhibit unusually have a high returns on holiday. (Tong, 1992) examined three major U.S. markets the NYSE, AMEX and NASDAQ from 1973 to 1991 and found the holiday effect to be strongly important even after accounting for other calendar turning points and the effect of using robust estimation techniques. These results are confirmed by several other studies, such as (Pettengill, 1989) and (Ariel, 1990). (Kim & Park, 1994) found that abnormally high returns on the trading day before or after holidays in the U.S stock market and suggest that the weather may have a psychological effect on investors' mood and how

they perceive information. (Vergin & McGinnis, 1999) found the NASDAQ and American Stock (1987-1996) are significant in U.S stock market. In the later years, (Dodd & Gakhovich, 2011) also stated the holiday effect was more and more important in U.S stock market and they can get high return in pre-holiday.

In Japan, holidays are not only a day off for Japanese people, but also carry the mission of inheriting traditional national culture. As we can see from the (Yen, Lee, Chen, & Lin, 2001), the holiday effect was exist in Japan stock market and the culture emotional also exist in stock market. Studied by (Yakob, Beal, & Delpachitra, 2005), the returns for the day after a holiday are positive and significant in Japan. And then study from the (Morck, Randall;Yeung, 2001), Japan's economic development has a close relationship with the level of holiday culture.

In some Islamic countries, festivals include a strong religious atmosphere, respect for God, and memories of history. Studied by (Seyyed, Abraham, & Al-Hajji, 2005), evidence of systematic decline in volatility during Ramadan has significant implications for pricing of securities especially option-like products and asset allocation decisions by investors in the Islamic countries. (Wasiuzzaman & Al-Musehel, 2018) stated that religious sentiment can be seen as playing an important part in influencing the volatility of the Saudi stock market during the Hajj pilgrimage. However, studied by (Pik Har & Wei Chih, 2016). Possible reasons of a lack of significant effects during important Islamic holidays such as Aidilfitri could be due to the Muslim's lower participation in the stock market.

In the China, the literatures of holiday effect were later than developed countries. We can know from (Yen et al., 2001), (Yen et al., 2001) studied the Chinese Lunar New Year effect from 1991 to 2000, and they found that China is an emerging market, the authors also recommend to investors the best investment strategy to capture the largest returns. (Chen & Chien, 2011) explored the study in an emerging stock market of mainly individual investors with a Chinese cultural orientation from the perspective of behavioral finance. At the same time (McGuinness & Harris, 2011) found evidence of holiday effect in China stock markets (Hong Kong, Shanghai and Shenzhen, turn-of-the-month and Chinese Lunar New Year). The study of (McGuinness & Harris, 2011) was motivated by the recent and rapid emergence of mainland Shanghai and Shenzhen's equity markets and their growing integration with Hong Kong which is much more open and internationalization. Continuing, (Chia, Lim, Ong, & Teh, 2015) examined the existence of pre-Chinese New Year and post-CNY holiday effect in the Hong Kong stock market for the period covering 1988 to 2012. And they conclude that Chinese superstition and tradition culture can significantly alter finance behavior.

Holiday Effects in other assets

In addition to the stock market, study on holiday effects has been extended to other markets such as futures market, foreign exchange market, currency market and bond and so on.

The first one was Futures market.(Fabozzi et al., 1994) believed that futures were more suitable for the calendar affect test, because the changes of futures prices are influenced by macroeconomic information published regularly, rather than by financial or unexpected announcements like stocks. This supports the findings of (Brown, Chua, & Mitchell, 2002) and (Yen et al., 2001) that the degree of price clustering decreases with the price level.

Second, Bond. (Yakob et al., 2005) examined clustering in four long-term government bond futures contracts traded on the LIFFE (the German Bond, the Italian BTP, the Japanese JGB and the UK Long Gilt). The impact of clustering on bid-ask spreads was also investigated. All four contracts were found to be the most frequently traded and quoted at prices where the final digit was 0.5 or 1.53. The degree of clustering maybe does not appear to be influenced by the level of volatility in each market. So they found holiday effect significant in bond.

Third, Exchange market. (Liano et al., 1992), Using the OLS regression equation to set the holiday dummy variable, research on four foreign exchange futures of British pound futures, Deutschmark futures, Japanese yen futures and Swiss franc futures found that there was no similar holiday effect in the foreign exchange market.

The last one was Currency market. (Pik Har & Wei Chih, 2016) had pointed out that transaction cost can be incorporated in future researches on the holiday effects so that the profitability of the trading strategy which is purely depending on the holiday effects can be further evaluated. This point support by (Vergin & McGinnis, 1999) conducted the holiday effect over the period 1987 to 1996 shows that the holiday effect has disappeared for large corporations but persists for small corporations, though on a scale unlikely to exceed transaction costs.

Does Holiday Effect Still Exist?

After review the literatures, we need to confirm that the holiday effect do exist in stock market, so we prove the existence of holiday effect in several parts.

For European countries, (Coutts & Sheikh, 2002) showed that the existence of the Weekend, January and Pre-Holiday effects in the All Gold Index on the Johannesburg Stock Exchange over an 11 year period. (Meneu & Pardo, 2004) studied shows the existence of a holiday effect in the most traded Spanish stocks and become more and more significant. (Los & Yu, 2008) measured the degrees of persistence of the daily returns of eight European stock market indices. They found that the global Hurst exponents, computed from wavelet multi resolution analysis, measure the long-term dependence of the data series well. So they found holiday effect was significant in European stock market. And later, (Marrett & Worthington, 2009) examined the presence of the holiday effect in Australian market and industry returns over the period of 1996 to 2006. More importantly, they found the evidence of holiday returns typically five times higher than other days. (Dodd & Gakhovich, 2011) showed that the holiday effect is present in the CEE region, with a number of countries showing abnormal holiday returns.

For American, (Ariel, 1990) showed a marked holiday return effect was apparent in the US in earlier years. Later, (Vergin & McGinnis, 1999) also found that US evidence indicates that short traders are able to extract profits from known anomalies, like the 'turn-of-the-month' and 'Weekend' effects. (Chong et al., 2005) pointed holiday effect still exist in US stock market, and importantly, they found strong evidence that US short-sales turnover shrinks as the calendar month-end nears. Continuing, (Cao, Premachandra, Bhabra, & Tang, 2009) demonstrated that a holiday effect still exists US share market. (T. Yuan, Gupta, & Bianchi, 2015) also showed that most of investors can get the high return pre-holiday and holiday effect was exist in US stock market.

For Asia, the holiday effect was further confirmed by the study of (Yen et al., 2001), they had found the existence of holiday effect in Hong Kong, Japan, South Korea, Malaysia, Singapore. So we can know that it may be

significant in Hong Kong, Japan, South Korea, Malaysia, Singapore, and Taiwan. Moreover, (Yakob et al., 2005) provided overwhelming evidence to suggest the existence of seasonality in the Asia Pacific stock markets (Australia, China, Hong Kong, Japan, India, Indonesia, Malaysia, Singapore, South Korea and Taiwan). The holiday effect causes higher-than-normal returns to be observed around holidays, mainly in the pre-holiday period. (Wong, Agarwal, & Wong, 2006) tested the pre-holiday effect by using ARCH and GARCH model, and reveal for the first time that there has been a reversal, though insignificant, of the January effect over time since the Asian financial crisis. As we all know that holiday effect is become more and more important to many counties and still persisted in the stock market. His result is confirmed by (Tangjitprom, 2011) confirmed that the holiday effect exists in Thailand because the stock returns are abnormally high during the holiday trading day. The higher holiday volatility reflects investors' behavior during market closure on Thai holidays, which can create abnormal buying and selling activities during pre-holiday trading days.

Last, for China. (Yen et al., 2001) provided evidence for continued existence of the Chinese Lunar New Year effect in these six Asian stock markets in recent years. (Mitchell & Ong, 2006) examined returns in the Chinese A and B stock markets for evidence of calendar anomalies. They found that both cultural and structural (segmentation) factors play an important role in influencing the pricing of both A- and B-shares in China. This result confirmed by (McGuinness & Harris, 2011), this article is motivated by the recent and rapid emergence of mainland China's equity markets (Shanghai and Shenzhen) and their growing integration with the much more open and international Hong Kong market. At the same time, (Abidin, Banchit, Sun, & Tian, 2012) stated the existence of Chinese New Year effects in selected Asia-Pacific stock markets. In recent years, (T. Yuan et al., 2015) analyzed the impact of the most important Chinese traditional festival over the period of 1999 to 2012, and they found that holiday effect exist in China stock market. Studied by (Chia et al., 2015), the existence of pre-Chinese New Year and post-CNY holiday effect in the Hong Kong stock market for the period covering 1988 to 2012. Later, (Casalin, 2018) and (Bergsma & Jiang, 2016) also found the holiday effect exist in China stock market.

Summary on the Existing Holiday Effect

In the stock market, the study of the existence of the holiday effect shows two characteristics: first, the holiday effect in emerging markets is still significantly higher than the normal average return. But there are exceptions. For example, for the African stock market, only South Africa has shown a significant holiday effect. (Cadsby & Ratner, 1992), by showing that holiday effects exist in a number of international markets, conclude that the effect is not generated solely by American institutions. They additionally suggest that the absence of the effect in some markets indicates that it may originate from country-specific institutional practices. (Norvaisiene, Stankeviciene, & Lakstutiene, 2015) stated that no evidence of the existence of holiday effect in the South African stock market.

Second, whether it is Western holiday or Chinese holiday, it is deeply imprinted with traditional culture, customs and historical heritage. So the culture holiday effect and non-culture holiday effect are different. (Thaler, 1987) studied this holiday effect by distinguishing between state holidays and cultural holidays in Malaysia, India, Singapore and Thailand. Except for Thailand, the result showed that the other three countries had significant abnormal returns during holiday periods for cultural holidays while all four countries did not have abnormal

preholiday returns for state holidays. According to (Brown et al., 2002), they found some support for the influence of Chinese culture and superstition on year-round number preferences of traders. Furthermore, in the Hong Kong market Chinese culture and superstition help explain the increased avoidance of the number 4 during the auspicious Chinese New Year, Dragon Boat and Mid-Autumn festivals. (Mitchell & Ong, 2006) also stated that both cultural and structural (segmentation) factors play an important role in influencing the pricing of both A- and B-shares in China stock market. (Chen & Chien, 2011) explored this issue in an emerging stock market of mainly individual investors with a Chinese cultural orientation from the perspective of behavioral finance. Studied by (Yang, 2016), cultural holidays and superstition in Taiwan indicate strong support for holiday preferences in Asia. (Wasiuzzaman & Al-Musehel, 2018) contributed to the scant literature on cultural/religious anomalies in Islamic stock markets. In the result they found that the sentiment connected to the particular religious/cultural event is usually used to explain the results found in the studies. Lastly, the magnitude of the holiday effect depends not only on the cultural/religion setting of a country market but on the cultural/religious background of its participants. If a local market is dominated by foreign investors, their belief system, even if different from that of local investors, is reflected in the return behavior of the local market.

Explanations of the Holiday Effect

(Pettengill, 1989) considered the possibility that High Holiday returns may result from a closing effect. He stated that other recurring return patterns involve high returns at market closings. For example, many studies report high returns for securities when the markets close for the weekend. He tested the closing effect hypothesis by examining returns before market closings not associated with holidays and returns before holidays not associated with market closings and found no empirical support for the hypothesis.

(Ariel, 1990) showed various hypotheses to explain this effect. He rules out the possibility that activity by specialists at the market close can explain the effect both that is due to positive returns start to accrue well, the market close and that is due to there is little discernible bid-ask component to the return. He also notes, the hourly pattern of positive return accumulation throughout holidays rules out most accounts of pre-holiday strength.. He considers another explanation based on the “lore of the street” as reported in the popular press that pre-holiday strength occurs due to short-sellers closing their risky positions in advance of holidays. He casts doubt on this inventory adjustment explanation as it is not clear why traders should want to close short but not long positions in advance of holidays. In addition, the modest returns on post-holiday trading days suggest that the short positions are not reinstated after the holiday. A further reason why to reject the inventory adjustment explanation is that it does not explain the observed positive returns from pre-holiday close to post-holiday open. Ariel suggests that a hypothesis consistent with the data is that there exists some clientele which preferentially buys (or avoids selling) on pre-holidays. The most recent confirmation of the holiday effects is done by (Tsiakas, 2010). The results posted strong economic and statistical evidence in favor of conditioning on holiday calendar effects. The study found that pre-holiday, post-holiday, and prolong weekends have significantly higher mean and lower volatility than regular trading days, whereas post-long weekends have lower mean and higher volatility. More importantly, in the context of dynamic asset allocation strategies, it found higher economic value in conditioning on the four holiday effects in both the mean and volatility of daily stock returns.

Holiday Effect and Statistical Tests model

At present, most of the research literature on holiday effect at home and abroad is analyzed by the ordinary least squares (OLS) method. OLS is an optimize algorithm, the name of the least square method has two reasons: one is to minimize the error, and the other is to minimize the error by minimizing the sum of the squares of the errors. Using the least square method, the unknown data can be obtained easily and the sum of the squares of errors between the obtained data and the actual data can be minimized. The least square method can also be used for curve fitting. The curve fitting can be linear fitting and nonlinear fitting. For example, at the early years, studied by (Liano et al., 1992), the OLS t-statistic for the significance of intercepts and coefficients assume a constant residual covariance matrix and no residual autocorrelation. (Coutts & Sheikh, 2002) stated the mean returns for January through December respectively by using OLS coefficients. Studied by (Holden, Thompson, & Ruangrit, 2005), when calendar effects are included, it is interesting to note that the OLS model performs best, followed by the models without mean effects. (K. Yuan, Zheng, & Zhu, 2006) investigated the relation between lunar phases and stock market returns of 48 countries by using OLS. (Padmakanthi, 2006) using Ordinary Least Square (OLS) method to analyze the day-of-the-week effect. (Bae, Yamada, & Ito, 2008) and (Turk, Mehdian, & Rezvanian, 2008) estimated using ordinary least square (OLS). (Yang, 2016) conducted ordinary least square (OLS) analysis to identify the average sentimental reaction of investors for decision making based on latent holiday preferences and trading behavioral changes. However, in practice, researchers found that the fluctuation of financial assets yields a high degree of time variability. The change of rate of return presents a phenomenon of clustering. The ordinary least squares method (OLS) easily ignores the stock index yield series and its regression random error (Dodd & Gakhovich, 2011). In recent years, many of the actual financial data observed have shown that the market exhibits different volatility at different times. This prompted people to propose time-varying assumptions about volatility. And the statistical test results show that although the correlation test of the income series is mostly not significant, the correlation test for the square sequence is significant. The latter test results show that the volatility is predictable to some extent.

So, (Bollerslev, 2008) was proposed the GARCH model in this environment that —the generalized autoregressive conditional heteroscedastic model. The advantage of the GARCH model is that a higher-order empirical model can be replaced with a simpler GARCH model. In the GARCH model, two different settings are considered: one is the conditional mean and the other is the conditional variance. It is generally believed that the GARCH model can simulate the cluster fluctuations of most financial time series, so in the financial literature, high-order GARCH models are rarely used. Such as (Yakob et al., 2005) employed the GARCH and GARCH-M models to study the day-of-the-week, month-of-the-year, monthly and holiday effects in ten Asia Pacific countries. (Guo & Wang, 2007) tested the pre-holiday effect by using GARCH model and test the seasonality in Chinese stock market by day of the week effect, January effect and semi-month effect. Study of (Dodd & Gakhovich, 2011), using GARCH and ARCH model to show that if the market risk is a determinant factor of the daily returns. (Chia et al., 2015) asymmetric effect will be identified by using the Threshold GARCH-M (TGARCH-M) and Exponential GARCH-M (EGARCH-M) models. And then (T. Yuan et al., 2015) found that there is a significantly positive pre-CLNY holiday effect for all cases by using an ARMA-GARCH model.

And in the last year, (Chancharat, Maporn, Phuensane, & Chancharat, 2018) using GARCH model and EGARCH model both of which are considered as appropriate for time series data.

II. CONCLUSION

Reviewing the relevant literature on holiday effect, we can see that many sources of holiday effect are caused by investors' deviation in investment decisions stimulated by the change of external environment. And these changes in the external environment are often triggered at a specific moment, which produces the holiday effect. On the other hand, the development of behavioral finance also depends on the study of anomalies.

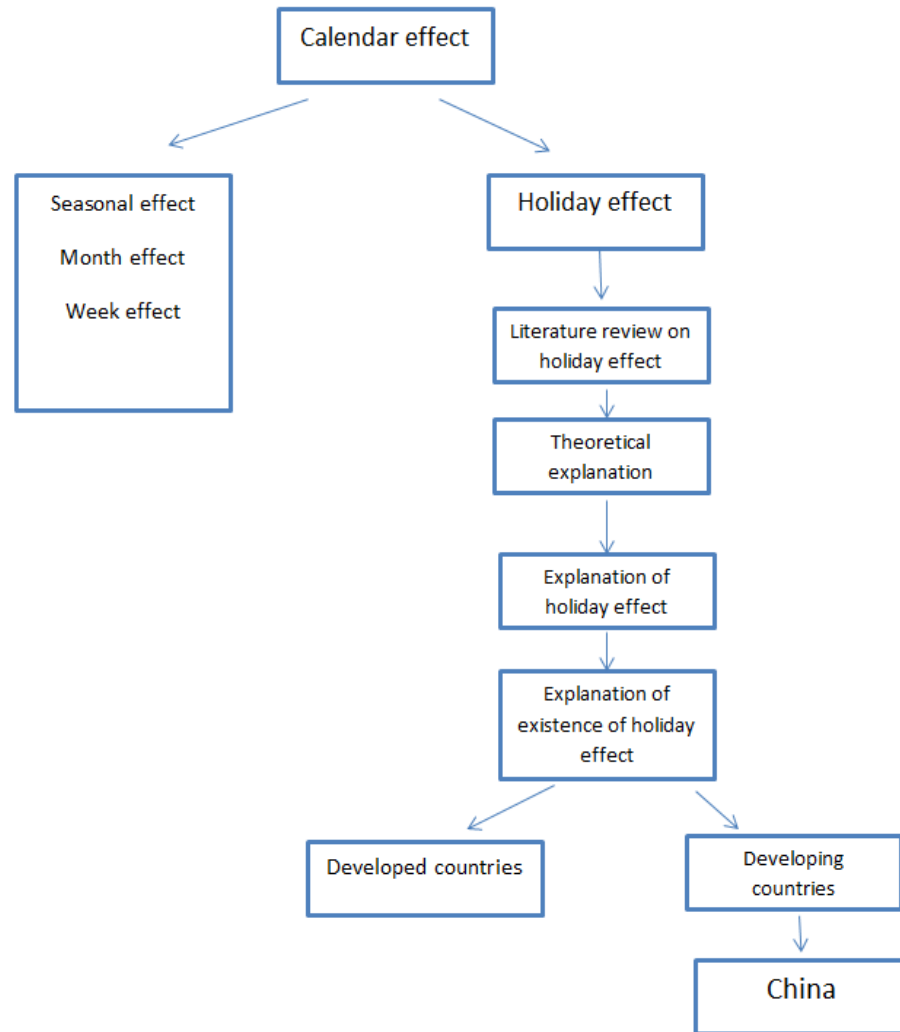
In fact, the specific and deep-seated reasons need to be further tested and verified. Through the review of the above literature, Firstly, study in previous literature and found that holiday effect statistically significant in both Chinese stock markets and others markets, in other words, not matter developing countries or developed countries, they almost existing holiday effect.

As stated by (Mitchell & Ong, 2006) found that the stock markets have unique institutional features, notably the existence of the largely domestically traded local currency A-stock markets and the (previously) foreign-only invested B-stock markets. When we separated into some holidays, Chinese New Year effect has a stronger effect compared to other holiday effect. In stock market, the pre-holiday periods posted an effect of higher stock returns, while the post-holiday periods shown the stock price experienced higher volatility.

Secondly, after read the literatures *Cultural New Year Holidays and Stock Returns around the World. Financial Management and Size effect in January and cultural influences in an emerging stock market* about holiday effect, holiday effect still exist in stock market, but some holidays would be effect by culture, some holidays are non-culture, they are not the same, so the holiday effect maybe effect by culture or non-culture. Such as in some Islamic countries, the significance of culture and religion in influencing investor behavior adds to the increasing number of studies which on stock predictability and investor irrationality (Wasiuzzaman & Al-Musehel, 2018). Therefore, he believed that holiday effects may be related to national systems and culture.

Thirdly, most of the scholars examined some main index when doing research. Actually, there still have different index for research, such as industrial sector, agricultural sector and so on. So, it is believed that sector index also important for research. The current research literature is only the research on the comprehensive index of the above-mentioned comprehensive index and the Shenzhen Composite Index as research data, and it has not study from the sector index.

From the most intuitive impact, the stocks closely related to the "holiday effect" should be for food and beverage tourism, commercial trade or food and beverage and other typical consumer stocks, and it still need more research to proof (Gao, 2009).



[Picture] The narrative structure of the calendar effect

Introduction of the picture: The basic effects derived from the calendar effect include the seasonal effect, the monthly effect, the weekly effect and the holiday effect. The literature review and theoretical analysis of the holiday effect at home and abroad are also carried out. On the basis of this, the author explains the holiday effect, especially taking developed countries and developing countries as examples.

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