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A Comprehensive Review of Literature on the Day-of-the-Week Effect

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Abstract
The paper is an attempt to review the existing literature available one calendar anomaly that is the Day-of-the-Week effect. The review is comprehensive as it not only provides information on the studies around the world but also focuses on India. The findings show that initially the Day-of-the-Week effect was present in the countries however, with time the anomaly started disappearing. The paper has covered various different kind of studies related to the anomaly in different market orientations, structural breaks, the Covid-19 pandemic, etc. Particularly in India, the studies show that the Day-of-the-Week effect is still present even in recent years.

Keywords: Calendar anomalies, Day-of-the-Week, India, Efficient Market Hypothesis

Overview

It is a fact that investors put in their savings in the capital markets in order to generate returns from it. One such market is the stock market of any nation, which mobilizes the savings of general public into productive activities. These investors pump in their money into the stock market to generate returns. The returns generated from the stock markets may or may not follow a pattern depending on the efficiency of the stock market. The Efficient Market Hypothesis theory describes that there are three levels of market efficiency viz. strong, semi-strong and weak level. The weak level of efficiency is found when share prices reflect the historical or past data, the semi-strong level of efficiency describes a situation whereby the share prices not only reflect historical data but also publicly available information, and the strong form of market efficiency occurs when all historical data, publicly available information and private information is also absorbed and reflected by the share prices.

Deviating returns generated by the stock market would indicate an anomaly, and when these anomalies are related to the calendar date (day, week, month, holiday, etc) it is called a calendar anomaly.

Calendar anomalies have long been studied by researchers around the globe, and one of the most common calendar anomaly is the Day-of-the-Week effect. This Day-of-the-Week effect anomaly attempts to explain that the average returns generated would differ based on which Day-of-the-Week it is. To make that simpler, it attempts to describe that returns generated on Mondays would differ from returns generated on Tuesdays, Wednesdays, Thursdays, Fridays or even Saturdays for the market which remain in operation on Saturdays.

This study attempts to provide a comprehensive review of the day-of-the-week effect over a wide range of years and focuses on recent studies as well to get an idea on the evaluation of the anomaly under review.

Methodology

The current study has reviewed various studies on day-of-the-week effect starting from when the anomaly was detected till the recent years, including the recent years of COVID-19 pandemic as well.

Review of Literature

The day-of-the-week effect was earlier detected in a study in the US markets by Osborne (1962). A new idea was brought into light by Rystrom & Benson (1989) which describes that day-of-the-week effect could be due to the fact that investors feel blue on Mondays; hence the negative returns after the weekend are evident. Further studies were also conducted during that era whereby one study was conducted by taking data from markets of nine different countries and the anomaly was found to be existing in those markets by Dubois & Louvet (1996). Balaban (1995) also conducted a study on day-of-the-week effect in Turkey and found that there were negative returns on Tuesday instead of negative returns on Monday which were reported by other studies such as the study by French (1980) & Jaffe et. al (1989).

To check for the existence of Day-of-the-Week Effect in India, Mishra (1999) conducted a study on BSE Sensex and Natex and found the existence of the anomaly. A study on Day-of-the-Week effect was conducted by Choudhry (2000) for emerging Asian Markets and the study found the anomaly to be present from 1990 to 1995. On the other hand, Brooks & Persand (2001) also found the existence of Day-of-the-week effect in Thailand, Malaysia and Taiwan. Another study on eastern European countries was conducted by Ajayi, Mehdian & Perry (2004) and it was reported that there was Day-of-the-week effect in 3 countries out of their sample namely in Estonia, Russia and Lithuania. Further, Derbali & Hallara (2016) reported the Day-of-the-Week effect in Tunisia as well.

Some researchers also conducted studies by dividing the time period under study into various segments such as Mehdian & Perry (2001) and still found the existence of Day-of-the-Week effect in the U.S markets in both time segments. Another study was carried out by Chia & Liew (2010) and found the existence of negative returns on Friday only in one time segment which is the pre 9/11 attack period.

Similarly, Muruganandan, Santhi & Jayaraman (2017) attempted to check for the presence of Day-of-theWeek effect in the BRIC countries by classifying their time period into 3 segments like pre, post and during the financial crises period and found that there was disappearance of the anomaly in all 4 countries in the post financial crises period. Another study found that there is existence of Day-of-the-week period in two countries India and China out of the five BRICS countries, based on the data collected from 2001 to 2014 by Khanna & Mittal (2016).

Other researchers have also studied for the existence of the anomaly during different market orientations i.e. bearish and bullish markets such as the study by Boudreaux, Rao & Fuller (2010) who found that there was day-of-the-week effect but only in non-bearish markets.

One unique study was conducted in Saudi Arabia Stock Market, as this market remains open on Saturdays. The study conducted by the researchers Abalala & Sollis (2015) found positive returns on Saturday in the stock market of Saudi Arabia.

Doyle & Chen (2009) conducted a study by taking into consideration 13 different indices from various countries and collected data for a period of 15 years. They found that there is presence of the anomaly in those indices over the time period under study. Ariss, Rezvanian & Mehdian (2011) reported the existence of the anomaly in all studied GCC market indices.

There are also contradictory studies which report that there is no existence of Day-of-the-Week effect such as the study by Hui (2005) which reported that there was no Day-of-the-Week effect in Korea, Taiwan and Hong Kong from 1990 to 2001. The study by Kohers et. al (2004) also documented the disappearance of the anomaly in U.S and other markets under study after the 1900s. Abdalla (2012) also produced evidence that there is Day-of-the-Week effect was not existent in Sudanese market. Also, Lim & Chia (2010) only found the existence of the anomaly in two of the 5 ASEAN countries. Guidi et. al (2011) also did not find the presence of Day-of-the-Week effect in the most of the countries under study between the years 1999 to 2009.

However, recent studies have again started reporting that there is Day-of-the-Week effect in various countries. Srinivasan & Kalaivani (2014) have conducted a study in the Indian market and have found that there is day-of-the-week effect in BSE Sensex and Nifty Fifty. Kaushik (2017) also undertook a study on small, mid and large cap indices of the Indian stock market and found that there is an existence of the day-of-the-week effect in small cap indices. K & D'souza (2021) attempted to check for the presence of day-of-the-week anomaly in seven sectoral indices of BSE and found the anomaly to be present from 2017-2021. Wuthisatian (2021) carried out a study and found the existence of Day-of-the-Week effect in the Thai stock exchange from 2014 to 2019.

Analysis and Synthesis

From the review collected and described in the paper, it can be noticed that the Day-of-the-Week effect anomaly was present round about the globe at various places in the earlier days. However, due to changes in stock market structure, authorities becoming more vigilant, increasing knowledge on investors, etc. the markets move from inefficiency towards efficiency with time. Various attempts have been made by researchers by breaking down their research period into small sub-periods and have found the existence in one or more sub-periods. As time went on, studies started reporting the disappearance of anomalies from the markets.

Some researchers attempted to determine the existence of the anomaly in various sectoral indices instead of broad market indices. They found the existence of the Day-of-the-week effect in some sectoral indices of some countries. Also, with COVID 19 being one of the major pandemic and a cause of changing investment behavior, a few studies have attempted to check for the Day-of-the-Week effect during the pandemic, and they found it to be present.

Implications

This review is an attempt to show how the anomaly under study that is Day-of-the-Week effect was present in developed countries and emerging countries round the globe. After the 1970s some studies started reporting disappearance of the anomaly in developed countries but the anomaly was still found to be present in emerging countries and some other countries. Also, the COVID 19 pandemic might have brought back the calendar anomalies to the markets where they had started disappearing. Future research can be made considering whether the anomaly will still remain present in the markets where it re-appeared during COVID-19. If the anomaly is found to be present, it will be a great help to investors

who are willing to earn abnormal returns using past trends or patterns.

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