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MARKET REACTION TO DEMONETIZATION: AN EMPIRICAL STUDY USING EVENT STUDY TECHNIQUE

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ABSTRACT

Demonetization as an event has shed its gloomy shadow on the booming tourism and hospitality industry in India. The event study methodology is used in finance, and refers to the situation where research seeks to determine the market reaction is considered to investigate the impact of an event on a specific dependent variable. Announcement of Demonetization is event studies, and its' impact on stock price of the hospitality industries. While employing event studies to measure the event impact, it may be found that the techniques to underperform the market. From this, the researcher can be inferring the significance of the event. The basic and indispensable assumption followed in the event study methodology is that the market is always efficient. The impact of an event will be reflected immediately in the stock prices in the efficient markets.

Keywords: Tourism, Hospitality Industries, Event Studies, Abnormal Returns, Pre and Post Announcement Periods, Chart Analysis

INTRODUCTION

The event study is one of the important research tools used in economics and finance. This tool is widely followed in the capital market arena to assess the effect of an event on stock prices. In simple words, the situation where research seeks to determine the market reaction to an event. Hence the shock of a specific event on the value of a firm is measured by an event study, which is a statistical method. For example, the announcement of an amalgamation between two business entities can be analyzed to see whether investors believe the amalgamation will create or destroy value. The basic idea is to find the abnormal return attributable to the event. It is being studied by adjusting for the return that stems from the price fluctuation of the market. Event studies have been used in a large variety of studies, including mergers and acquisitions, earnings announcements, dividend announcements, bonus share declaration, stock split, debt or equity issues, corporate reorganizations, investment decisions, corporate social responsibility and demonetization. The effects of an event will be reflected immediately in security prices. Event study methods exploit the fact that, given rationality in the marketplace. Thus the impact can be measured by examining security prices surrounding the event.

Demonetization means the stripping of currency unit from its original status as legal tender. It takes place when there is a transform of national currency: The current form or forms of money is withdraw from transmission and go off, often to be replaced with new notes or coins. A country can completely swap the old currency with new currency.

The Indian government strong-willed to demonetize the 500- and 1000- rupee notes, the two biggest denominations in its currency system; these notes

accounted for 86% of the country's circulating cash. With little warning, India's Prime Minister Narendra Modi announced to the public on Nov. 8 2016 that those notes were worthless, effective immediately – and they had until the end of the year to deposit or exchange them for newly introduced 2000 rupee and 500 rupee bills.

Here we are taking Demonetization as event

Literature Review

Dolley (1933) examines the price effects of stock splits, studying nominal price changes at the time of the split. Using a sample of 95 splits from 1921 to 1931, he finds that the price increased in 57 of the cases and the price declined in only 26 instances. The stages of sophistication of event studies amplified from the early 1930s until the late 1960s.

In the late 1960s, seminal studies by Ball and Brown (1968) and Fama (1969) introduced the methodology that is essentially the same as that which is in use today. Ball and Brown measured the in order content of earnings, and Fama studied the impact of stock splits after eliminating the effect of simultaneous dividend increases.

Fama, Fisher, Jensen and Roll (1969) describes standard event study methodology determines a security's price reaction by comparing actual returns to estimated expected returns in there event methodology study. To find the estimated return, the historic relationship between the security and the market is determined by regressed with the security return against the market return. The resulting estimated regression parameters represent the responsiveness of the security to changes in the market return, beta, and the level of abnormal returns for the security, alpha. During the event window, these parameters are applied to the market return to determine

the expected return for a particular security.

According to Binder (1998), the market model method assumes that the average abnormal return for the sample as measured by the average alpha value should be zero. There may be events, however, where this assumption does not apply. A large body of literature shows that over medium-term horizons groups of securities display positive momentum, a tendency for securities to outperform the market over an extended period. For a sample of momentum securities, the average alpha value determined by the market model would be positive. If an event applies predominately to drive the securities price, use of the market model to measure the impact of the event will result in biased estimates.

According to Stickel (1985) suggest that professional investment analysts tend to recommend "hot stocks," that is, securities that have recently displayed positive momentum. If Stickel's presumption is correct, market model event studies of the performance of securities recommended by professional analysts will provide biased conclusions. In this paper, we propose an alternative estimation procedure for estimating the expected security return. This straightforward procedure is based on standard modelling assumptions but may result in radically different conclusions for securities exhibiting positive price momentum.

OBJECTIVES OF THE STUDY

The main purpose of the study is

- To examine the behaviour of stock prices of hospitality sectors, as the announcement of Demonetization as event study methodology.
- To find the correct path of future trends based on the announcement effect using event study techniques.

In this context, the behaviour of stock prices has been examined in the prior and post-announcement periods in relations to the unexpected dividend announcement.

METHODOLOGY

The methodology of event studies is fairly standard and proceeds as follows:

Collect a sample of firms that had a surprise announcement (the event).

What causes prices to change in an announcement that is a surprise? For many studies, such as an announcement of a merger, the announcement of bonus shares, the announcement of earnings or dividends, and any announcement can be treated as a surprise. For this studies, it is necessary to define a surprise. Here the Demonetization has been taken as an announcement as a surprise. The data of 14 hotels data and one nifty rate has been collected

Determine the precise day of the announcement and designate this day as zero

The Current studies use an intraday data adopted, but in

early days monthly data adopted. The drawback of use of monthly data is that many changes comes during a month. Thus, for measuring market efficiency, it is important to measure the impact of the announcement using the smallest feasible intervals. A number of recent studies have used intraday data.

Define the period to be studied.

Here two window is formed, one prior to the announcement and another post. Total one year data has been taken

Computation of the return on each of the days being studied for all stock

In this study pre and post announcement returns are calculated from prices along with the benchmark index prices are also collected.

Computation of abnormal return for each of the days being studied

Abnormal return is actual return less the expected return/ market return. In this study, the return on the benchmark index is used as the expected return.

Examination and discussion of the results

Having performed the analysis the abnormal returns are examined and conclusions were drawn.

LIMITATIONS OF EVENT STUDY METHODOLOGY

The limitations of the model in this study is

Firstly, event study analysis employed in stock market assuming that the market is efficient. This supposition is not legally binding in many situations. We can only use the CAR graph in this case.

Secondly, the methodology provides estimates of the short-run impact on shareholders only and fail to consider many other effects of the event.

Thirdly, the outcome of the event studies are responsive to transform in research design. A dissimilarity in choice of return from the market (R_m) will end result in vastly different results for abnormal returns.

Lastly, the results of research estimation depend closely on the data collected. If the source of data on the dependent variables (stock price) is not trustworthy, then estimations on abnormal returns will most probably be erroneous as well.

Despite all the limitations in the event study methodology is extensively used in many areas of research. This is due to the fact that this research methodology has a powerful and easy to design, is able to detect abnormal performance, can be used in less than perfect conditions and the results are easy to interpret and share.

RESULT AND DISCUSSION

The study covers a period of one calendar year from 11th Febuary 2016 to 09th Feburay 2009 and the results are based on a sample of Nifty stocks, listed in the National

Stock Exchange. The data set contains daily data from the 14 hotels from hospitality sector. The announcement of Demonetization date has been taken over the 10 window period i.e. it will be considered as 0. Two window will be taken one pre announcement and other is post announcement. Two basic time series data have been employed in this study. These are, dividend announcement dates for the whole sample period, daily closing stock prices for the period around each dividend announcement day of every stock, prices of the NSE Nifty Index in the time window for announcement day of every stock and number of shares traded each day for each company in the sample period. The selection of sample has primarily been guided by one factor, availability of announcement of Demonetization for the sample period in the NSE Nifty.

ANALYSING OF ABNORMAL RETURNS USING EVENT STUDY

Using capital market data, an event study measures the impact of a specific event on the market. The utility of such a study arrives from the fact that given sagacity in the market place, the outcome of an event will be replicate immediately in security prices. The abnormal return is calculated by actual return of a stock less the market return on the same day. This make possible the use of abnormal returns around the event day in the analysis. The fashion of abnormal return for both positive growth and negative growth. The abnormal return occurs in the announcement period.

For analysis purpose, the companies are categorized into two type's i.e. positive growth and negative growth companies. This can be concluded with previous year dividend or current year interim dividend.

Here the data of following hotels taken.

List of hotels taken for study

Chart 1	Advani Hotels	Chart 8	Mahinadra Hotels
Chart 2	Asian Hotels (E)	Chart 9	Oriental Hotels
Chart 3	Asian Hotels (W)	Chart 10	Royal Orchids
Chart 4	EIH Hotels	Chart 11	Speciality Hotels
Chart 5	EIH ASSO Hotels	Chart 12	Taj Hotels
Chart 6	Leela Hotels	Chart 13	TGB Hotels
Chart 7	Indian Hotels	Chart 14	Vicroy Hotels

In almost all hotels, return does not differ from the market return. The return behavior of this company prior to the event day and after the event day is constant growing with

the market index. The price path on the event day also followed with the market movement. The announcement of the Demonetization doesn't seem to have any influence in the price. By this news, one can earn return and it also fulfill the transaction cost.

Chart 1 Advani Hotels

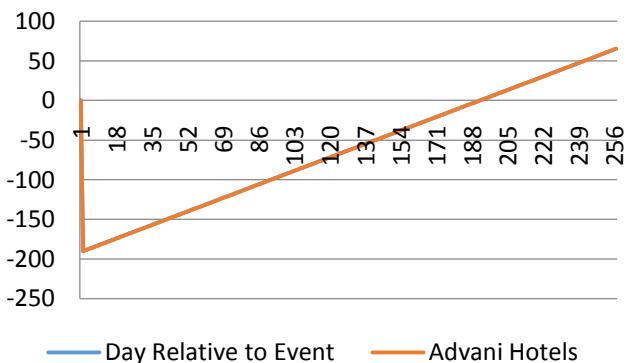


Chart 2 Asian Hotel (E)

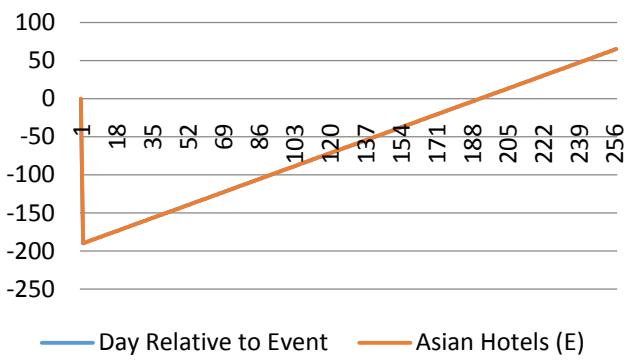


Chart 3 Asian Hotels (W)

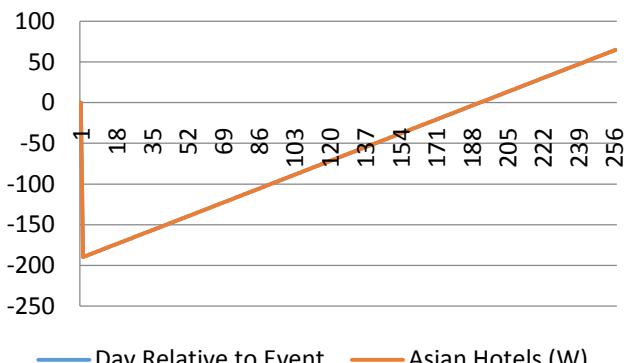


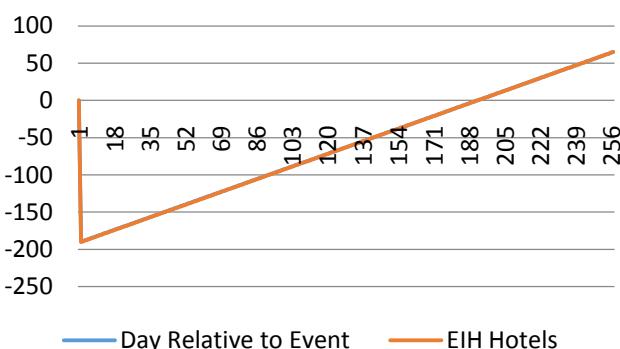
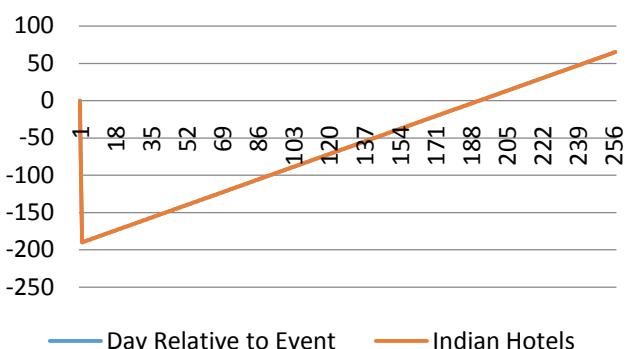
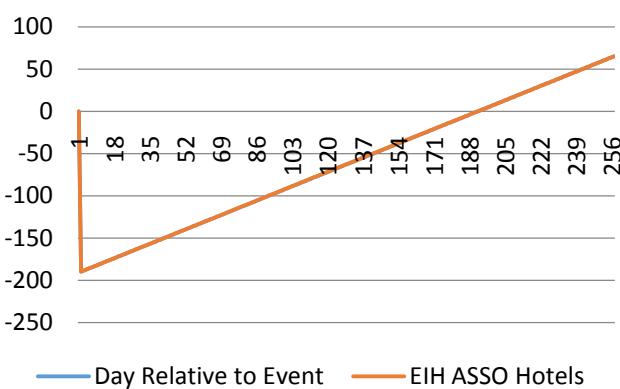
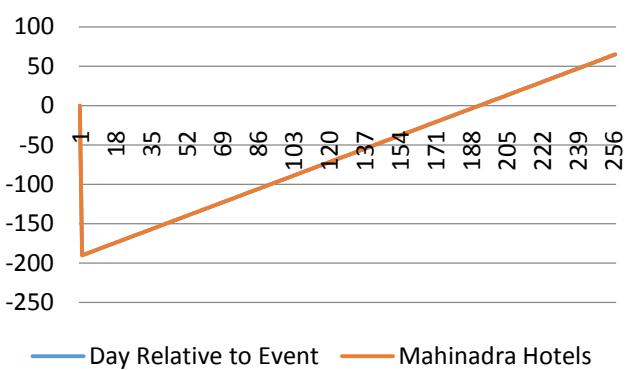
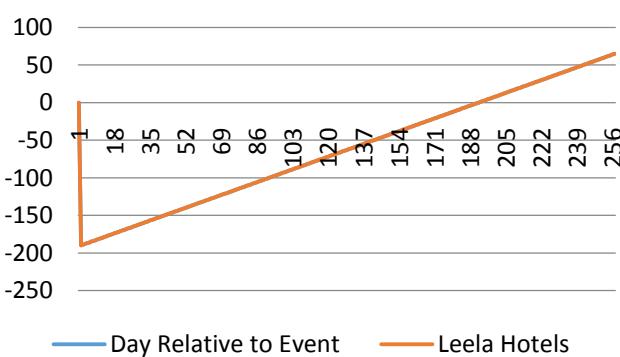
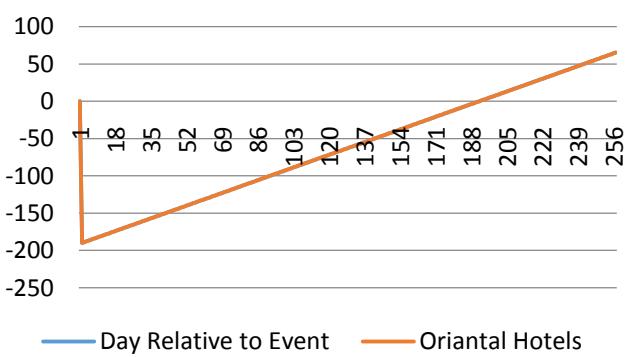
Chart 4 EIH Hotels**Chart 7 Indian Hotels****Chart 5 EIH Asso Hotels****Chart 8 Mahindra Hotels****Chart 6 Leela Hotels****Chart 9 Oriental Hotels**

Chart 10 Royal Orchids Hotel

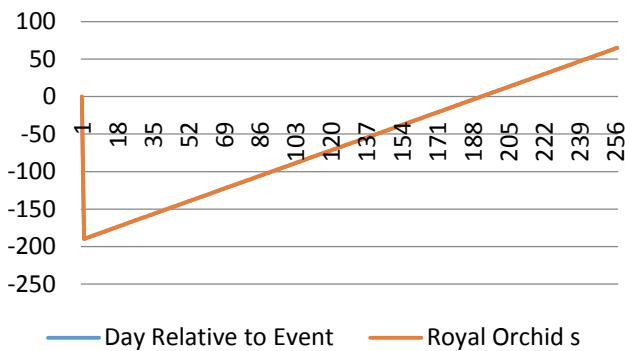


Chart 11 Speciality Hotels

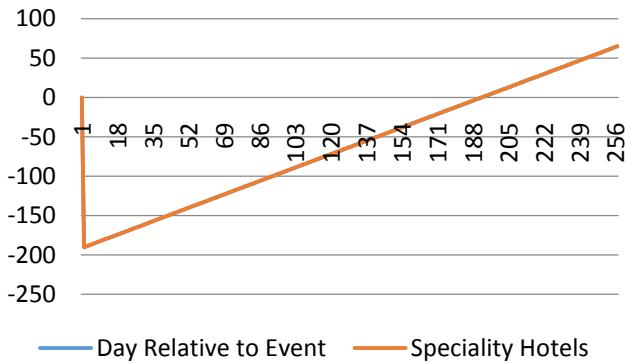


Chart 12 Taj Hotels

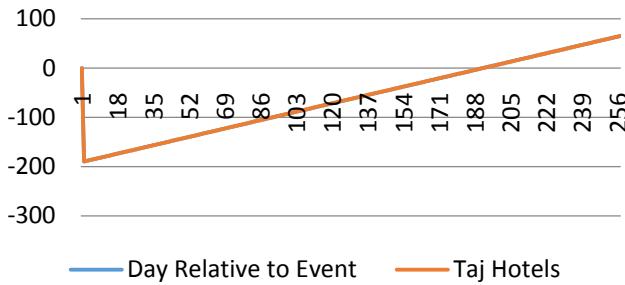


Chart 13 TGB Hotels

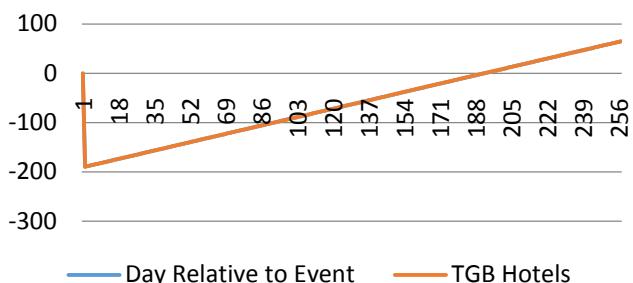
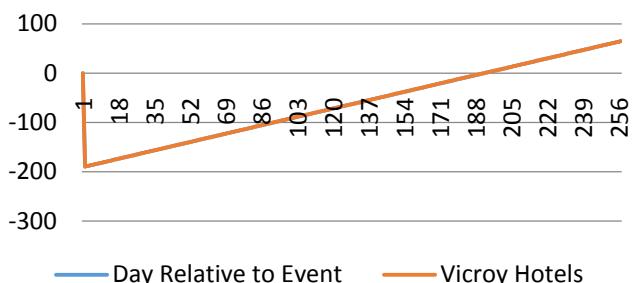


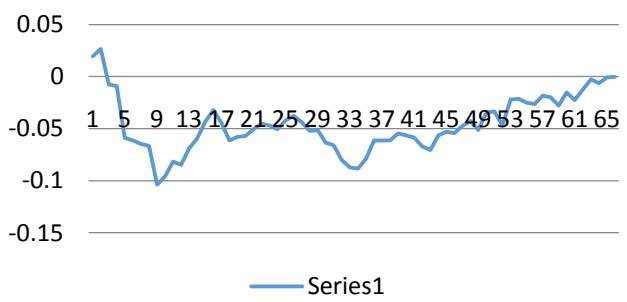
Chart 14 Vicroy Hotels



From the above chart, prior to the event day company return is correlated with the market return. The same trend continued even after the event day. Opportunity exists in both the periods to earn abnormal return. Hence the announcement of result does not have any impact in the market.

But when the calculation of CAR(Cumulative Abnormal Return) done in the study, then it has been found that in post announcement that CAR goes down and after some time the market recovers(as shown in Chart 15)

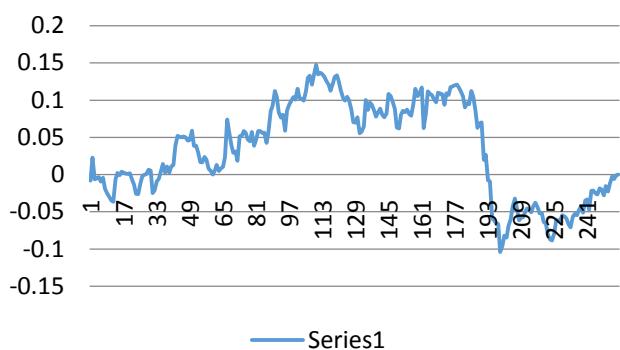
Chart 15 CAR after announcement date



But if we compare CAR by taking one year data(as shown in chart 16) then the result shows that hospitality sector follows cyclical flows, due to mergers and acquisitions,

earnings announcements, dividend announcements, bonus share declaration, stock split, debt or equity issues, corporate reorganizations, investment decisions and corporate social responsibility.

Chart 16 CAR of Complete period



CONCLUSION

In simple words, the study shows, over the short and medium terms, the demonetization drive will have varied effects on the many sections of the hospitality industry in the country, but in the long term will positively impact the growth of the hospitality sector. The hospitality sector is intrinsically tied to the economic conditions of any country.

With empirical method point, the findings of the study basically highlight as to how the market evaluates equity returns. It is simply not true, that demonetization announcement, data can provide a profitable guide to investment timing or improve a portfolio's rate of return. News is echoed in stock prices so rapidly that in print data tells the investor practically nothing about the future change in stock prices. Not only do stock returns reflect the hotel's data when available but they also anticipate future growth to some extent. The growth factor is taken and it is supposed to be an important performance indicator that is likely to affect the stock returns. By taking this announcement of demonetization, no one can outperform and there is no strategy exists in the market. Also the above analysis makes clear; it seems very difficult to find future path based on the announcement effects.

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