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## RESEARCH ARTICLE

# IMPACT OF STOCK DIVIDEND/BONUS ISSUE ON RETURNS OF STOCK LISTED IN KARACHI STOCK EXCHANGE. 

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#### Abstract

This paper investigated the impact of stock dividend/bonus issue on return of corresponding company. Event study approach has been used to explore the abnormal return. For this purpose, 81 days event window has been created with 40 days of a pre and post window on the event occurred respectively. 27 service sector companies have been selected and calculated AR (Abnormal Return), AAR (Average Abnormal Return) and CAAR (Cumulative Average Abnormal Return). Finally, ttest technique applied to check the significance of the findings. This study concluded that bonus issues have a positive effect on the stock returns but the results are insignificant.


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## Introduction:-

Bonus shares are the shares given by the company to its existing shareholders, according to the proportion of ownership they currently have in the company. An important point here is that, although the number of shares issued by the company increases but the value of the company remains the same. This is because the issued capital is subtracted from the retained earnings and added to the share capital of the company.

An issue of bonus shares is called bonus issue or stock dividend. When a company announces a bonus issue, it is also accompanied by the announcement of a "book closure date". It is the date when the company would temporarily close its books for the transfer of stock. This date is typically a couple of days before the bonus shares are actually issued and any person buying a share after the book closure date would not be entitled to receive any bonus shares.

In Pakistan the listed companies have been issuing stock as well as normal dividend. The topic of our research is to evaluate the effect of a stock dividend or a bonus issue on the returns of the individual stock. This effect of stock dividend is evaluated by event window analysis, the event window of our study is 80 days, 40 days before the event day and 40 days after the event day. The bonus issues included in the study range from 2008 to 2013 , as announced in the KSE website and the sector included in the study is only the services sector.

## Modigliani-Miller theorem:-

It is a theorem on capital structure, arguably the most popular theorem for forming the capital structure of a company. The theorem states that, under the classical random walk approach of process and under some certain assumptions, i.e. in the absenteeism of taxes, bankruptcy costs, agency costs, and asymmetric information, i.e., in an efficient market, the value of a firm is unaffected by how that firm is financed. So it makes no difference what the
firm's capital structure is of what its dividend policy is. Therefore, the Modigliani-Miller theorem is also often called the capital structure irrelevance principle.

Miller and Modigliani in 1961 theoretically verified that bonus issues and other type of dividends do not alter the company's share capital. The implication of bonus issues is that as the bonus shares are issued to the same shareholders, the value of the shares remains the same but the number of shares has increased, so the price of the shares falls. Hence, the value of the shares held by the investors remains the same.

Essentially, firms that pay more dividends offer less stock price appreciation that would benefit stock owners who could choose to profit from selling the stock. However, the total return from both dividends and capital gains to stockholders should be the same. If dividends are too small, a stockholder can simply choose to sell some portion of his stock. Therefore, if there are no tax advantages or disadvantages involved with these two options, stockholders would ultimately be indifferent between returns from dividends or returns from capital gains.

Since the publication of the papers by Modigliani and Miller, numerous studies have shown that it does not make any difference to the wealth of shareholders whether a company has a high dividend yield or if a company uses its earnings to reinvest in the company and achieves higher growth. However, the importance of a firm's dividend decision is still contested, with a number of theories arguing for dividend relevance.

## Semi-Strong Form Efficiency:-

It is a class of EMH (Efficient Market Hypothesis) stating that all public information is calculated into a stock's current share price. Meaning, that neither fundamental nor technical analysis can be used to achieve superior gains i.e. beat the market.

This hypothesis characterizes that only the information that is secret i.e. not publically available can give the investors abnormal returns. Apart from that every other information is adjusted in the stock's price.

The theory says that the investors are not concerned with a company's dividend policy since they can sell a portion of their portfolio of equities if they want cash. The dividend irrelevance theory essentially indicates that an issuance of dividends should have little to no impact on stock price.

## SEC rules bonuses:-

A listed company may issue bonus shares is subject to the following conditions, namely: - draft amendments to the Company (issued capital) Rules ", 1996

The Company's Board of Directors resolved to issue bonus shares shall be communicated to the Commission and the Stock Exchange, the day of the decision, communicated to the public;

The Company shall retain at least $25 \%$ of the enhanced paid-up capital as free reserves;
The certificate shall be obtained by the Company's auditors certify: -
After the issue of bonus shares reserved free reserves of not less than $25 \%$, increasing the company's paid-up capital;
(B) all contingent liabilities are computed, the lowest $25 \%$ of remaining reserves and the certificate will be sent to the respective stock exchanges of information and the decision of the day for the public dissemination Commission has charged.

Purposes of this section, the term "free reserves" Explanation._ include any amounts already allocated all intangible assets or fictitious assets adjusted income or other surplus

Free, it is not retained in order to satisfy any impairment in the value of assets, specific liability at the balance sheet date, the contingency of existence or promise, but does not include

1. reserves as a result of the revaluation of fixed assets;
2. Goodwill reserves;

Of the impaired range of ordinary depreciation or Otherwise, the conditions of admissibility of Income Tax Ordinance, "2001 (2001 forty-ninth);

Development allowance reserve created under the Income Tax Ordinance, "2001 (2001) forty-ninth requirements;
Provides tax-deferred or the extent of the Company's current liabilities;

1. Capital redemption reserve;
2. Unrealized capital gains.

## Need of study:-

We want to analyze the bonus issues and the effect the announcements of bonus issues have on the return of the shares. We studied various articles and highlighted this issue, as we observed there is not much study conducted in Pakistan when it comes to bonus issues. Hence, the need exists to further elaborate the effect and to identify any new findings about the issue at hand.

## Problem Statement:-

Companies often issue bonus in shape of stock but there is on study which is entirely focus on the impact of stock dividend on stock return.

## Research Questions:-

- What is the return of stocks before the bonus issue announcement?
- Is there any abnormal return of the stock after the announcement?
- What is the overall effect of the announcement on the stock?


## Research objective:-

To examine the effect of bonus issues on stock return

## Significance of the study:-

The beneficiaries of the study would be the researchers, the firms and the investors. As our study would give them a detailed account of the effect of bonus issues on the stock returns, so if the return is higher after the announcement then the investors would invest more after the announcement, the firms would use it to generate more investment and the researchers would have a new topic to discuss, scrutinize and analyze.

## Literature Review:-

2013 Omer SubaihThe Effect, of Stock Split Declarations on Stock Prices: an Empirical Inquiry for the Toronto Stock Exchange (TSX)
This paper investigates the effect of stock split announcements on stock Prices in the Toronto Stock Exchange (TSX). Used event study to determine event window and estimation window, then calculated returns in estimation window and event window using CAPM model. Compared the two to determine abnormal returns and finally $t$-test was applied to check the significance. Cumulative abnormal return exists on short-term period surrounding the stock split announcement. On the other hand, there is no evidence support that the cumulative abnormal return would continue to exist when the size of the event window is expanded. Abnormal returns on short run, but no significant evidence to support that the market participants can generate abnormal returns in long run.

## 2010 Hideki Hanaeda, Toshio Serita The Effects of Stock Splits on Stock Prices, Liquidity and Stock Ownership: Evidence from Japan.

The purpose of the study is to investigate the effects of stock splits on stock prices, liquidity and stock ownership in Japan. A window of 80 days was taken, -10 and +70 days. The stock market reaction to the announcement of stock splits was estimated by using market-adjusted prediction errors $\left(\mathrm{PE}_{\mathrm{it}}\right)$. $\mathrm{PE}_{\mathrm{it}}$ is the difference between daily rate of return on the common stock of splitting firms and daily rate of return on the Tokyo Stock Price Index. After taking their average, $t$-test is applied. The price, returns and ownership increase as a result of stock splits, but liquidity decreases in japan, stock splits have a positive effect on returns, price and ownership, but a negative effect on liquidity. 2008 Dr. SatyajitDhar, Market Reaction, around the Stock Splits and Bonus Issues: Some Indian Evidence.

This paper examines the announcement effects of stock splits and bonus issues on the Indian Stock market during the period April 2000 to March 2007. An event window was constructed, -40 and +40 days, returns were calculated using CAPM, average abnormal returns were calculated by subtracting actual and expected returns and finally t-test was applied to check the significance. It was found that $77 \%$ of sample companies have positive mean return in respect of stock split whereas that for bonus issues is $57 \%$. Stock splits may give an investor more return than that from bonus issues considering entire event window. But on announcement date of bonus, $83 \%$ of sample companies experienced positive return compared to $69 \%$ of sample companies having positive return on stock split announcement date. Thus on the announcement date, reaction of market participants to bonus issues found to be more positive than that to stock splits.

## Karachi Stock Exchange closes at all-time high:-

2010 MikkoReinikainen, Effects of stock splits, on stock returns: An event study, of Finnish companies.
The main idea of this study is to test the legitimacy of the signaling effect of stocks splits in Finnish stock markets. If the signaling effect prevails, then abnormal returns would be detected around the split announcement days. It means that the investors take stock splits as favorable positive information. The study uses event study methodology to investigate the effect of stock splits on shareholder wealth. The study found ho abnormal returns before or after the event date. So the study conducted is unable to state whether the signaling effect holds or not. These results differ from that of the previous empirical studies.

## 2012 Yague, Gomez-Sala and Pove-da-Fuentes Stock split size, signaling and earnings management: Evidence from the Spanish market.

The study was done in order to examine the use of stock split announcements as signals of a firm's earnings performance Event study was done, abnormal returns were calculated and then finally t-tests were applied to check the level of significance Positive abnormal returns were calculated as a result of stock split. Result found a statistically significant relationship between abnormal returns around the split announcement and the surprise component of the split factor, especially in splits in which the factor is higher than expected given the pre-split share price level and the size of the firm

## 2005 Leledakis, Pa-paioannou, Trav-los, Tsangarakism stock splits on the athens stock exchange.

This study analyzes the price effects of stock splits undertaken by firms whose stock is traded on the Athens Stock Exchange (ASE). It also tests empirically some of the hypotheses that have been advanced, by prior literature, to explain the abnormal price reaction to stock splits. To check the price effect, again an event window was determined, and abnormal returns calculated Liquidity decreases as we move on from the event day, but prices and returns show a positive change No price reaction on announcement day, but earnings improve in the years prior to the split but there is no evidence of future earnings improvement. Study confirmed that liquidity does not increase as the result of stock splits.

## 2002 Christen Wolffthe market reaction to stock splits evidence from germany.

This paper investigates the market reaction to stock splits, using a set of German firms. A sample of stocks whose split date was announced were selected, and returns before and after the announcements were calculated, then abnormal returns were calculated At the announcement date itself, the abnormal return is very low and insignificant, but the following day shows an abnormal return of $0.47 \%$. This abnormal return is significant according to all test statistics, even at the $1 \%$ level. Using trade-to-trade returns, the abnormal return on day +1 is even higher, yielding $0.56 \%$. The cumulative abnormal return over the extended event window $[-30 ;+30]$ differs by almost $4 \%$, depending on the method used. As compared to US, the market reaction in Germany around announcement date is relatively lower, but still it shows a positive effect on the returns of the stock

2006 MayankJoshipura Price and liquidity effects of stock split: An Empirical evidence from Indian stock market. This paper studies the price and liquidity effect associated with stock split surrounding its announcement and effective day by using standard event study methodology which, measures significance of abnormal return and change in liquidity associated with an event Event study methodology was used, with -51 and +51 day window to work on, then abnormal returns were calculated, and finally t-test was applied to check the significance Excess return on announcement day, abnormal return on the effective day, effect not long term, Though there is a significant positive abnormal return of $1.08 \%$ and $1.66 \%$ found on announcement and effective day respectively it did not sustain and got reversed in less than a week's time, and there was a clear evidence of significant
improvement in traded volume (turnover) associated with stock split both surrounding announcement and effective day.

## 2002 Patrick Dennis Deon Strickland The effect of stock splits on liquidity and excess returns: Evidence from shareholder ownership composition.

This paper studies the impact of firm ownership composition on both the abnormal returns at the announcement of a stock split and liquidity changes following a stock split. A sample of firms giving stock split announcements was selected. For each firm in the sample, quarterly ownership composition data for two years before and after each split were collected. Monthly and quarterly return, volume, outstanding shares and price data for two years before and after each split were collected. 1392 observations were in the four-year sample. The estimated coefficient on the percentage change in turnover is positive and significant. The estimated coefficient for institutional ownership is negative and significant at the one percent level This suggests that the different levels of institutional ownership lead to large economic differences in the wealth effect of a stock split The largest post-split increase in institutional ownership occurs for firms that had low institutional ownership prior to the split. Changes in liquidity are negatively related to the level of institutional ownership prior to the split. The abnormal return following a split is negatively related to the level of institutional ownership prior to the split.

2012 May Hu An examination of stock split and special dividends announcements in relation to market timing, opportunities, business cycle and monthly pattern.
The principal aim of this research is to examine the macro determinant that can explain why firms issue stock split and special dividend, and to know are the aggregate patterns and abnormal returns of stock split and special dividend announcement are related to the monthly patterns of January effect \& Halloween effect. Comparison of announcement date with pre and post announcement dates on daily weekly, 10 days,, 15 days, 1 month 2 month and 6 month. Market reaction to stock split is normally stronger in January but firms do not have a tendency to issue stock split in January rather they want to issue in Halloween period. The powers of business cycle variables are stronger in abnormal returns than the investor variables and monthly effect. The abnormal returns of stock split announcements are higher in bull market. Co.'s prefer to pay special dividend in bear market, both short term and long term abnormal returns are higher when market is downward.

## 2010 John Mwendwa Stock split and their effect on share prices, a study of the firms listed on the Nairobi stock exchange. <br> To determine the reasons Kenyan firms undertake stock split within the Kenyan market. To determine if stock split have any effect on share price. 10 co.'s which did stock split from 2004-2009 were taken and their prices were analyzed on monthly basis of before and after split Interviews were and conduct with questionnaire and were analyzed by using SPSS. Stock split is being done in order to bring down the stock prices. Another finding is that co.'s did so to give off a positive outlook that co. is going well. There were not any fix changes in prices of the share before and after split. In Kenya co.'s do stock split in order to bring prices to optimal level. Stock split did not have a direct effect on share prices.

## 2003 Isil sevilyyalmizAn analysis of stock splits in the Istanbul stock exchange.

this study investigates the stock split decisions of the Turkish companies. Firstly the study investigates the liquidity effect of the stock splits on Turkish stocks; secondly it determines the optimal trading range of different sized firms and firms with different investors. Lastly, the study analyzes by testing whether or not Turkish firms whose share prices rise above their optimal trading ranges are more likely to split their stocks as compared to firms whose share prices are at or below the optimal trading ranges. Companies are selected from 1992 to 2002 which split their stocks; this is composed of 740 split events by 263 firms. The study was unable to define the relationship between share price and stock split, as no of shareholders are not publically available and the proxy used for it didn't define the result.

## 2005 Annad. S. Desai Changes in trading activity following stock splits and their effect on volatility and the

 adverse information component of the bid-ask.Examine the volatility of stock after splitting and the effect of adverse information component of the bid-ask spread. Extract the adverse information component from the total bid-ask spread, then relate changes in this component to changes in the number of trades after split, the spread and the adverse information component of the spread increases after the stock split. We also find a negative correlation between the change in the adverse information component and the change in the number of trades. Results shows that the increase in volatility cannot be attributed
solely to microstructure biases arising from the bid-ask bounce and price discreteness and after correcting these biases, we find a significant increase in the volatility after the split.

## 2011 Kanwal Iqbal Khan Effect of Dividends on Stock Prices

The effect of stock dividend on stock prices of chemical and pharmaceutical industry. The objective of this study is to see the effect of cash dividend and stock dividend on stock market prices. A sample of twenty five companies is taken from the period of 2001 to 2010. They used Panel data approach to measure the relation between stock dividend and stock prices. Fixed and random effect models are applied on the panel data. Cash Dividend, Retention ratio and return on equity has positive significant relation with stock market prices while stock dividend and earning per share has negative insignificant relation with stock market prices. Dividend Irrelevance theories are not applicable in case of chemical and pharmaceutical companies of Pakistan.

## 1994 Mark. S GranblattThe Valuation effects of stock splits and stock dividends.

To check the Reaction of companies and its return on announcement of stock splits and stock dividends Sample of companies who is announcing stock split and stock dividend. Take out the data of return post and pre-split announcement. On Average, companies react positively to stock dividend and stock split announcement. Found Positive excess return on and around the ex-dates of stock dividends and splits. They concluded Positive relationship between stock split and the stock price. Post announcement abnormal returns, particularly the ex-dates of splits and stock dividends.

## Karachi Stock Exchange DHIYAN (FORECAST) for Mon, 26th, Nov, 2012:-

 2009 Neinsu Shih, The Impact of Employee stock bonus on equity market value.The objective was to relation between equity market value and the expense of employee stock bonus that is disclosed but not recognized under Taiwan's law. Sample data was drawn from listed companies in Taiwan Stock Exchange from 1997 - 2005. Divide it into sector wise and then compare it which sector issues more employee stock bonus. The two-stage estimation of Heckman is used in this study. In the first stage, the determinants of employee stock bonus equation are estimated using the probity analysis. In the second stage, the inverse Mill's ratio obtained from the first stage is included in the second stage regression models to test the hypotheses of this study. The market value of employee stock bonus has a negative effect on the firm's share price. Results indicate the negative side of employee stock bonus is its dilution of the existing shareholders' equity rights. Employee stock bonus plan has a motivational effect for employees. Empirical results show that the fair value of employee stock bonus reduces a firm's equity market price.

## 2009 CAHIT ADAOGLU AND MEZIANE LASFER, The Market Valuation, of Bonus Distributions in an Inflationary Environment.

The objective was to check the market valuation of an unusual form of stock dividends, referred to as bonus distributions, which are carried out by transferring the accumulated equity reserves, mainly the inflation revaluation equity reserves, to paid-in capital leaving the total equity unchanged. They used event study methodology and sample consists of 371 announcements over the period of 1995-2006. They find average abnormal returns on the announcement day 0 , and 0.94 on day +1 . They found that the pre-event CAAR are positive, but post event period are negative. Hence, market reacts positively to the bonus announcements in Istanbul.

## 2001 Balasingham Balachandran* \& Sally Tanner, BONUS SHARE ISSUES AND ANNOUNCEMENT EFFECT: AUSTRALIAN INDICATION

The objective of the study was to check share price reaction to announcement of bonus share issues of Australian companies. Took data from different resources like Bloomberg, IRESS... 139 Observations. Daily share price data for a period from 250 days before to 20 days after the announcement dates and market value for each company making a bonus issue one month prior to the bonus issue announcements Pre-announcement effect was found only for industrial non-financial companies and financial companies that announced bonus issues simultaneously with other market sensitive information such as interim or final results. The magnitude of price reactions to bonus issue announcements is statistically related to the size of the bonus issues and the pre-announcement effect the price reaction to bonus issues announcements. Bonus issue announcements led to statistically significant positive price reaction around announcement dates for uncontaminated and contaminated events.

## Research Methodology:-

Methodology:-
Research Design:-
There are basically 3 major types of research designs:

## Exploratory study:-

It is a study undertaken to explore some certain problem or issue of a variable about which no or very little is known.

## Descriptive study:-

It is a study under taken to ascertain or describe the characteristics of a certain variable under consideration.

## Hypothesis testing:-

It is a type of research which explains the nature of relationships between the considered variables or checks the independence of two or more factors.

Hence, as we have tried to investigate the relationship of stock dividend and stock splits with their stock returns, the research conducted by us is a hypothesis testing study.
Furthermore, the sub-type of the research was an event window study. In which we tried to determine the abnormal returns for the firms before and after an event date by comparing the actual and expected returns.

## Methodology Literature:-

All of the articles we studied used the same research methodology of an event study, though their sample size differed. All of them chose an event date and determined the abnormal return by calculating the returns for a given window before and after the event date and then calculating the excess returns by CAPM and finally subtracting the expected return by the actual return.

## Data:-

The sample of our research is the all the bonus issues of the companies belonging to service sector in KSE, a total of 27 companies and 61 issues from 2008 to 2012. The data about these companies and their issues was collected from various sources, like opendoorsforall.com, zhvsec.com, brecorder.com and Pakistan-stock.blogs.com.

## Statistics:-

Market return and stock returns were the two variables considered by us. Here market return is the independent variable and stock return is the dependent variable. Abnormal return was calculated by subtracting the expected return and the stock return.

## Stock and market return:-

Stock and market return was calculated by the simple formula for calculating the return of a stock, i.e, Returns $=($ Current return/previous return $) \log$

## Expected Return:-

Expected returns give the return that the inverters are expecting for a given day or a period is calculated by:


#### Abstract

Abnormal Returns:- Abnormal returns are the returns that give the return of the stock in excess to what was expected by it, it could be in positive or negative, if positive it is favorable to the investors if negative then it is not good for the investor's perspective: $\mathrm{AR}=$ Actual return - Expected Returns Average AR $=A R / n$


## Average abnormal Returns:-

is calculated by dividing the sum to returns of the security for the window dates by the number of bonus issues considered

## Cumulative average abnormal Return:-

Cumulative average abnormal return is calculated by adding the average abnormal returns of the event window dates

## Results:-

As we explained in the above discussion that we took event window of 40 days before and after the event date. This strategy is called event study.

The objective of our study was to determine whether stock dividend, i.e. bonus issues have any effect on the stock's returns. Meaning, that does an announcement of stock dividend by a company lead to abnormal returns.

The results of our study on Average Abnormal Returns (AAR) of bonus issues are given in the annexure 1. The results show that on the event date there exists an average abnormal return of $0.49 \%$ which is significant at $2.2 \%$, meaning that the investors would be able to get $0.49 \%$ then what they expected to get. Table 1 shows the impact of stock dividend announcements on share price performance. It shows that around 37 companies out of a total of 61 were able to get a positive return during the event window, meaning that $61 \%$ of the companies show a positive return to the stock dividend announcements during the event window. The table also signifies that a total of 23 companies out of 61 , i.e. $39 \%$ of the companies, got a negative response to their dividend announcements during the event window.

Now looking at the effect of stock dividends on the announcement date or the event date, we see that a total of 38 out of 61 companies have a positive mean return on the announcement date, that is almost $64 \%$ ( $63.4 \%$ ) companies having a mean positive return which is better than the number of companies showing positive return during the event window. While the number of companies showing negative return on the announcement date fall to 22 from 23 , i.e. fall from $39 \%$ to $36.6 \%$, meaning that more companies show a positive reaction to stock dividend announcement on the event date then the number of companies having a positive return on event window.

Impact of stock Dividend announcement on share price performance:-
Table.1:-

| Particulars | Bonus Issues | Percentage |
| :--- | :--- | :--- |
|  | No. of Companies | $61 \%$ |
| Companies having positive <br> mean return during event <br> window | 37 | $39 \%$ |
| Companies having negative <br> mean return during event <br> window | 23 | $63.4 \%$ |
| Companies having positive <br> mean return on announcement <br> date | 38 | $36.6 \%$ |
| Com\OLK0P;panies having <br> negative mean return on <br> announcement date | 22 | $100 \%$ |
| Total | 60 |  |

The table 2 tracks the course of the mean CAAR along the days in the event window. The table shows that the CAAR in the post event days is more than the pre event days. Furthermore, the CAAR on the event date is the maximum as compared to other ranges meaning that the return of the selected stocks increase as they lead up to the event date and then don't show any drastic changes after the event has occurred. The CAAR for the entire window, i.e. $t_{-40}$ to ${ }_{t+40}$ is $1.8 \%$.

CAAR across the Event Windows

Table 2:I-

| Days | Bonus Issues | Variance |
| :--- | :--- | :--- |
|  | Mean CAAR | 0.00005772 |
| $\mathrm{t}_{-40}$ to $\mathrm{t}_{-21}$ | 0.005167 | 0.00011762 |
| $\mathrm{t}_{-20}$ to $\mathrm{t}_{-1}$ | 0.02754 | 0.000000002 |
| t to $\mathrm{t}_{1}$ | 0.053238 | 0.00000583 |
| $\mathrm{t}_{-1}$ to $\mathrm{t}_{1}$ | 0.051532 | 0.00036727 |
| $\mathrm{t}_{+2}$ to $\mathrm{t}_{+20}$ | 0.033454 | 0.00000553 |
| $\mathrm{t}_{+20}$ to $\mathrm{t}_{+40}$ | 0.050648 | 0.00035753 |
| $\mathrm{t}_{-40}$ to $\mathrm{t}_{+40}$ | 0.018276 |  |

These results show a positive abnormal return for the companies and the bonus issues, meaning that the market is inefficient, and the results are significant for the event date. But when the overall significance is considered then we see that majority of the results and returns are insignificant. Table 3 gives the significance of all the results. From the table it can be seen that although the positive abnormal returns of the stocks are significant on the event day, but an overwhelming majority of them are insignificant. Almost $82 \%$ of the results are insignificant. This shows that the market is efficient and the relevant information about the stock was already incorporated in the price of the stock before the announcement was made.

Table 3:-

| Particular | Bonus issue |  |
| :--- | :--- | :--- |
|  | Significance @ $10 \%$ | Percentage |
| $\mathrm{t}_{40}$ to $\mathrm{t}_{-21}$ significance AAR | 4 | $4.9 \%$ |
| $\mathrm{t}_{-20}$ to $\mathrm{t}_{-1}$ significance AAR | 4 | $4.9 \%$ |
| $\mathrm{t}^{\text {significance }} \mathrm{AAR}$ | 1 | $1.23 \%$ |
| $\mathrm{t}_{1}-\mathrm{t}_{20}$ significance AAR | 5 | $6.17 \%$ |
| $\mathrm{t}_{21} \mathrm{t}_{40}$ significance AAR | 1 | $1.23 \%$ |
| issues having no significant | 66 | $81.48 \%$ |
| Total | 81 | $100 \%$ |

## Discussion:-

Our results are in accordance with almost all of the previous studies that we have analyzed. We studied an article named "Market Reaction, around the Stock Splits and Bonus Issues: Some Indian Evidence" written by Dr. SatyajitDhar during 2008. As the name suggests they, like us, also wanted to check the effect of stock split and bonus issues on the market. They came up with the same result, that bonus issues have a positive effect on the returns.

Another article, "Dividend Announcements and Stock Returns: A study on Karachi stock exchange"written by Shahid Mahmood, Muhammad FayyazSeikh and Abdul QayyumGhaffari during 2011 investigated the same issue, the effect of dividend announcements and stock returns. The results of this study are also consistent with our research and back our findings in a Pakistani market.

The article entitled, "Bonus issue announcements and its impact on share prices of Colombo Stock Exchange (CSE) in Sri Lanka" by Ramesh S and Nimalathasan B written during 2007 investigated the same issue but in a Sri Lankan market. This study is one of the very few that shows a negative relation between stock dividends i.e. bonus issues and the stock returns. This difference could have been because of many reasons, Sri Lanka is a small market and in the days when this research was conducted, terrorism also prevailed in the country. So these factors may have affected the stock market and the shares trade volume in the country, hence leading to inconsistent results.

Another article was "A study on effect of bonus declaration, on share price volatility and liquidity and its impact on market wealth creation, in Bangalore NSE" written by Prof. Suresha B, Dr.Gajendra Naidu during 2012. They also tried to investigate the effect of bonus declaration on share price and wealth creation. They concluded that bonus issues are favorable to market price and market wealth. These results are consistent with our findings, they support and back out findings in Pakistani market context.

Another article "An examination of stock split and special dividends announcements in relation to market timing, opportunities, business cycle and monthly pattern" which was written by May Hu during 2012 also tries to examine the effect of stock splits and stock dividends on the market. He concluded that the bonus issues and stock dividends have a positive effect on the market and are favorable to the investors and stockholders. These findings are again consistent with our own results.

Another article "Effect of Dividends on Stock Prices" written by Kanwal Iqbal Khan during 2011 also tries to investigate the effect of dividends on the stock prices. They used panel data approach to investigate the effect of both the cash and stock dividends on the stock prices, and their result was that it has a significant positive effect on the stock prices. These results are in accordance to our findings, hence they support our results.

Another article studied by us entitled "The Impact of Employee stock bonus on equity market value" written by Neinsu Shih during 2009 investigates the effect of employee stock bonus on equity market. The research concludes that market value of employee stock bonus has a negative effect on the firm's share price. This is not following our findings, but that is due to that fact that here only the effect on employee stock bonus is concerned and it has a negative impact on equity value of the firm because it dilutes the existing shareholders' equity rights.

Another article entitled "BONUS SHARE ISSUES AND ANNOUNCEMENT EFFECT: AUSTRALIAN INDICATION" written by Balasingham Balachandran* \& Sally Tanner during 2001 examines the price reaction to announcement of bonus share issues of Australian companies. They also concluded the market reaction around bonus issues to be statistically significant. Similar to our findings, hence this research also backs our findings.

Furthermore, our findings are also backed by a number of other studies that we analyzed, such as The Effect of Stock Split Declarations on Stock Prices: an Empirical Inquiry for the Toronto Stock Exchange (2013), The Effects of Stock Splits on Stock Prices, Liquidity and Stock Ownership: Evidence from Japan (2010), Effects of stock splits, on stock returns: An event study, of Finnish companies (2010), Stock split size, signaling and earnings management: Evidence from the Spanish market (2012), Stock splits on the Athens stock exchange (2005), the market reaction to stock splits, evidence from Germany (2002), The effect of stock splits on liquidity and excess returns: Evidence from shareholder ownership composition (2002) and still some studies have supported our findings.

## Conclusion:-

In this paper we have tried to investigate the effect of stock dividend or bonus issues on the returns of the stock, whether or not they exceed the investor expectations or not, i.e. do they provide any abnormal returns or not. For this reason we selected 61 issues from 27 different companies from the service sector of Pakistan, and set an event window of 81 days, i.e. -40 and +40 days around the event date, which was the announcement date. As a result of a thorough and rigorous analysis we conclude that bonus issues have a positive effect on the stock returns but the results are insignificant.

## Major Findings:-

There was yet a lot of speculation about whether or not stock dividend is relevant or irrelevant when it comes to the value of the firm, and Modigliani and Miller theorem proposed that there won't be any abnormal returns, that all the relevant information is already adjusted in the price of the stock, and our results are support this theory. Our research has shown that, firstly although on the event date there exists an average abnormal return of $0.49 \%$ which is significant at $2.2 \%$, meaning that the investors would be able to get $0.49 \%$ then what they expected to get on the event day. An overwhelming majority of companies shown a positive return on the announcement date, specifically $64 \%$ of the companies analyzed have shown a positive mean return on the announcement date. Secondly, majority of the companies have also shown a positive mean return during the event window, i.e. the days before and after the announcement date and the CAAR has continued to grow while leading up to the announcement date, but when the overall significance is considered then this result is shown to be insignificant. Which shows that although $61 \%$ of the companies have shown a positive reaction to the stock dividend announcements, this result is insignificant because the significance of more than $81 \%$ of companies is more than $10 \%$ (our considered level of significance).

## Policy Implications:-

On the basis of our findings it can be suggested that the investors should not believe bonus issues to result in additional returns to them, because our research shows them to be insignificant. Showing that no abnormal returns can be generated, that the market is an efficient semi strong market in which the public information is already
incorporated into the price before the event has occurred. So the firms should not use it to increase their share price or generate investor interest.

## Research limitations:-

The bonus issues are not very popularly used in Pakistan, so the sample was not as big as we would have liked it to be. Furthermore, the effect of macroeconomic variables, political and social situation of the country were not included in our study.

## Future Directions:-

Considering the research limitations and other research opportunities there are some certain directions for future research. Firstly, although we included all the bonus issues we found in the period we selected, but the time span can be expanded to increase the sample size by including more bonus issues and also by include other macroeconomic factors and their effect on the stock prices in the research. Furthermore, the effect of stock splits should also be analyzed by the future researchers because both stock splits and stock dividends go hand in hand and there has not been much research conducted in Pakistan in this regard. These considerations would help the future researchers increase the conclusiveness of their findings and increase the significance of their study.

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Tables:-
Annexure 1:-

| Days | AAR | CAAR | t | Sig. (2-tailed) |
| :---: | :---: | :---: | :---: | :---: |
| t-40 | -0.00089 | -0.00089 | -0.353 | 0.726 |
| t-39 | 0.001466 | 0.000578 | 0.794 | 0.43 |
| t-38 | 0.001791 | 0.002369 | 0.851 | 0.398 |
| t-37 | 0.002199 | 0.004568 | 1.368 | 0.176 |
| t-36 | -0.00422 | 0.00035 | -1.875 | 0.066 |
| t-35 | 0.001558 | 0.001907 | 0.519 | 0.606 |
| t-34 | -0.00146 | 0.000448 | -0.623 | 0.536 |
| t-33 | 0.003089 | 0.003537 | 1.159 | 0.251 |
| t-32 | -0.00509 | -0.00155 | -1.707 | 0.093 |
| t-31 | -0.00201 | -0.00357 | -0.908 | 0.368 |
| t-30 | 0.000962 | -0.0026 | 0.439 | 0.662 |
| t-29 | 0.001538 | -0.00106 | 0.465 | 0.643 |
| t-28 | 0.003213 | 0.002148 | 1.573 | 0.121 |
| t-27 | 0.004469 | 0.006618 | 1.349 | 0.183 |
| t-26 | -0.00045 | 0.006169 | -0.205 | 0.838 |
| t-25 | 0.002957 | 0.009126 | 1.247 | 0.217 |
| t-24 | 0.005418 | 0.014544 | 2.014 | 0.049 |
| t-23 | 0.00294 | 0.017485 | 1.261 | 0.212 |
| t-22 | 0.002988 | 0.020473 | 1.758 | 0.084 |
| t-21 | 0.002226 | 0.022698 | 1.236 | 0.221 |
| t-20 | -0.00077 | 0.021927 | -0.465 | 0.644 |
| t-19 | -0.00398 | 0.017944 | -0.951 | 0.345 |
| t-18 | -0.00092 | 0.017025 | -0.466 | 0.643 |
| t-17 | 0.000179 | 0.017204 | 0.065 | 0.948 |
| t-16 | -0.00027 | 0.016932 | -0.173 | 0.863 |
| t-15 | -0.00079 | 0.016145 | -0.34 | 0.735 |
| t-14 | -0.00031 | 0.015831 | -0.174 | 0.863 |
| t-13 | 0.0001 | 0.015931 | 0.041 | 0.967 |
| t-12 | 0.001925 | 0.017856 | 0.758 | 0.452 |
| t-11 | 0.003514 | 0.02137 | 1.78 | 0.08 |
| t-10 | 0.006547 | 0.027917 | 2.473 | 0.016 |
| t-9 | -0.00067 | 0.027244 | -0.176 | 0.861 |
| t-8 | 0.008055 | 0.035299 | 2.903 | 0.005 |
| t-7 | -0.00183 | 0.033467 | -0.742 | 0.461 |
| t-6 | 0.001189 | 0.034656 | 0.46 | 0.647 |
| t-5 | 0.004155 | 0.038811 | 1.671 | 0.1 |
| t-4 | 0.001458 | 0.040269 | 0.468 | 0.642 |
| t-3 | 0.002125 | 0.042394 | 1.085 | 0.282 |
| t-2 | 0.002053 | 0.044447 | 0.8 | 0.427 |
| t-1 | 0.003672 | 0.048119 | 1.544 | 0.128 |
| t0 | 0.004988 | 0.053107 | 2.347 | 0.022 |
| t+1 | 0.000261 | 0.053368 | 0.102 | 0.919 |
| t+2 | 0.002043 | 0.055411 | 0.981 | 0.33 |
| t+3 | -0.00379 | 0.051617 | -1.542 | 0.128 |
| t+4 | -0.00099 | 0.050629 | -0.423 | 0.674 |
| t+5 | -0.00178 | 0.048847 | -0.704 | 0.484 |
| t+6 | 0.002829 | 0.051676 | 0.968 | 0.337 |
| t+7 | 0.000293 | 0.051969 | 0.086 | 0.932 |


| t+8 | -0.00255 | 0.049423 | -0.654 | 0.516 |
| :---: | :---: | :---: | :---: | :---: |
| t+9 | 0.005359 | 0.054783 | 1.164 | 0.249 |
| t+10 | -0.00278 | 0.051998 | -1.143 | 0.258 |
| t+11 | -0.00242 | 0.049578 | -0.805 | 0.424 |
| t+12 | -0.00816 | 0.041417 | -2.21 | 0.031 |
| t+13 | -0.01354 | 0.027876 | -2.239 | 0.029 |
| t+14 | -0.00617 | 0.021708 | -1.88 | 0.065 |
| t+15 | 0.00249 | 0.024198 | 0.655 | 0.515 |
| t+16 | -0.01105 | 0.013147 | -2.807 | 0.007 |
| t+17 | -0.00566 | 0.007489 | -1.968 | 0.054 |
| t+18 | -0.001 | 0.006486 | -0.204 | 0.839 |
| t+19 | -0.00079 | 0.005697 | -0.274 | 0.785 |
| t+20 | -0.00056 | 0.005135 | -0.306 | 0.761 |
| t+21 | 0.001128 | 0.006264 | 0.325 | 0.747 |
| t+22 | 0.002192 | 0.008456 | 0.651 | 0.518 |
| t+23 | -0.00493 | 0.00353 | -1.71 | 0.093 |
| t+24 | 0.000637 | 0.004167 | 0.332 | 0.741 |
| t+25 | -0.00161 | 0.002557 | -0.41 | 0.683 |
| t+26 | 0.001165 | 0.003722 | 0.382 | 0.703 |
| t+27 | 0.000634 | 0.004356 | 0.173 | 0.863 |
| t+28 | -0.00408 | 0.000272 | -0.752 | 0.455 |
| t+29 | 0.003897 | 0.004169 | 1.064 | 0.292 |
| t+30 | -0.00224 | 0.001932 | -0.598 | 0.552 |
| t+31 | -0.00097 | 0.000959 | -0.314 | 0.755 |
| t+32 | 7.29E-05 | 0.001032 | 0.024 | 0.981 |
| t+33 | 0.002832 | 0.003864 | 0.759 | 0.451 |
| t+34 | -0.00217 | 0.001696 | -1.046 | 0.3 |
| t+35 | -0.00177 | -7.5E-05 | -0.778 | 0.439 |
| t+36 | -0.00185 | -0.00192 | -0.579 | 0.565 |
| t+37 | 0.00402 | 0.002095 | 1.035 | 0.305 |
| t+38 | 0.000987 | 0.003082 | 0.287 | 0.775 |
| t+39 | -0.00251 | 0.000573 | -0.717 | 0.476 |
| t+40 | -0.00065 | -7.6E-05 | $-0.253$ | 0.801 |

