# Impact of Earnings Announcement on Stock Returns and Information Effect on Investor's Sentiments: Evidence from Pakistani Stock Market 

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#### Abstract

The purpose of this study to empirically investigating the impact of earnings announcement on stock returns and investor's deportment via signalling effect for the period 2010-2014 by the Pakistani firm's listed on Karachi Stock Exchange (KSE). The study employed event study methodology to examine the effect of earnings announcement on the stock returns around the 41 -days event window of both pre and post announcement. The research results reveal that after the earnings announcement, stock returns persistent downward drift which is statistically insignificant and offer some support for behavioral finance theory which confirmed that earnings announcement not provide any predicative information around the firm's future earnings performance. The study have implications for investors, policy makers and shareholders for their proper strategic decision making to uncovered the uncertainty about the firm's future earnings performance.


Keywords: Earnings Announcement; Stock Returns; Signalling Effects; Event Study.
JEL Classification: G14; G17; G32;

## 1. INTRODUCTION

When corporation's profitability increases then equity analysts issued official statement of company profitability to public by issuing a press release on specific period which is known as earning announcement date or earning declaration date. The earnings announcement is the major financial event in the life of corporations which are not only entail the company's cash flow to shareholders which may also provide signal to investors around present and future performance of the companies. In underdeveloped countries where economic and political condition are not stable and investors are failure to forecast the uncertainty about firms future performance by finding the impact of these event on stock prices which are ultimately effect on firm value. Harkavy (1953) described that increase in stock prices increased earning proportion distributed among shareholder as dividends which exhibit great association among retained earnings and price appreciation and reason-out that earnings retention is more important for firm's growth than the dividends. Increases in corporation's profitability are announced by issuing official statement of profitability to public in press release. The information conveyed via these earnings reports same as which is pre-consolidate in stock prices and investors forecast the future earnings based on that information (Beaver, 1968). Pettit (1976) claimed that only dividend announcement impart information to market because he has not found any difference between actual and expected dividend but he has found difference between actual and expected earnings (Aharony and Swary, 1980; Woolridge, 1983). Earnings announcement strongly influenced on stock prices around the period of announcement and increase return on stock which accurately disclose information about earnings process of firms (Whaley and Cheung, 1982). Change in earnings strongly influenced on investor's investment decision and to determine the return on dividend and earning's. ${ }^{1}$ Both events has corresponding effect on each other because change in earning (dividend) expectation changed dividend (earning) yield (Lee and Marcus, 1984) and provide valuable information to investors about the future performance of firms which is necessary for investment point of view to design portfolio. Lonie et al. (1996) described current earnings comprised the rife signal of capital market. Change in dividend frequently changed firms' future earnings by testing signalling and smoothing variables. ${ }^{2}$ Dasilas et al. (2008) discussed positive stock price reaction to dividend and earnings announcement which are supportive for

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investors in decision making. The purpose of the study is to determine the effect of earnings announcement on stock returns in Pakistan which provide guidance for investor's by signalling effect. Our study is typically paying attention on investor's deportment to uncovered uncertainty involved in the Pakistani firms about future earnings performance which will assist firms to make informed decision concerning investment. The paper organized as follows. The section two contain review of literature. In section three discuss about the data and research methodology of the study. The section four will give an empirical results and discussion. Section five, conclusion will be draw from the findings, followed by limitations and future directions.

## 2. LITERATURE REVIEW

Beaver (1968) investigated whether earnings announcement provide any information to common stock investors in content of information of firms value around future return. He used Sharpe Model ${ }^{1}$ and stated that change in price of any single security can't be announced like other financial announcement event of the firms. Consequently, the information which are pre-consolidate in the stock prices convey same information as conveyed by earnings reports which are used by investors to forecast the future earnings and to adjust the stock prices. A comparative study by Aharony and Swary (1980) investigated the reaction of stockholder return towards quarterly dividend and earnings announcement of those firms listed on The New York stock exchange. The result shown that information provided by change in dividend strongly influenced on stockholder returns than the information provided by change in earnings quarterly. Abnormal return on security prices measured by Chari, Jagannathan and Ofer (1988) periodically during the period of quarterly earnings announcement. They found decrease (increase) in firm size increased (decreased) the firm future earnings performance and show more positive (negative) abnormal return. Moreover, if information are favorable (unfavorable) then investors give high (low) bid for stock prices. A comparative study by Butter and Han (1994) examined different factors ${ }^{2}$ which influenced on yield and investigated the impact of earnings announcement on stock prices in context of investment opportunity and decision making which reduced the uncertainty comprises in future earnings. Eilifsen, Knivsfle and Saettem (2001) are analyzed the pre and post earnings announcement effect on stock prices and the result show that stock prices of largest firms decline due to earnings announcement which diminished the information among investors. Kong and Taghavi (2006) investigated the impact of earnings announcement on stock prices and Semi-Strong Form of Efficiency ${ }^{3}$ of China stock market which provide information to investor's for decision making (Divecha and Morse, 1983; Dasilas et al. 2008; Sare et al. 2013). They have examined quantitative relationship between stock prices and earnings announcement by employing GARCH Model ${ }^{4}$ and concluded stock price have asymmetric reaction towards pre and post effect of annual earnings announcement. In Denmark Sponholtz (2008) forecasted small stock market reaction to earnings announcement and found unrealistic market average expectations of earnings announcement and ensued there is imbalance between small market reaction and unexpected earnings because small stock market provide less information regarding earnings announcement (Venkatesh, 1989; Su, 2003; Araujo et al. 2011) to stock price. The stock prices accommodation to earnings announcement in Paris disclosed by Louhichi (2008) and reasonout that volume of trade abnormally high during earnings announcement having no impact on stock prices. Afego (2013) empirically demonstrated the impact of earnings announcement on stock prices and ensued that there is negative abnormal return on stock price when earnings announcement eventuated. Another related study on the empirical relationship among earnings announcement and share price provided by Sare, Akuoko, Esumanba (2013) and find positive impact of earnings announcement on stock price which really helpful for investment decision because positive impingement of earnings announcement on stock prices fetched information to the market (Lee and Marcus, 1984; Lonie et al. 1996; Araujo et al. 2011) and investor react accordingly. The empirical literature revealed that number of researches have been conducted regarding the impact of earnings announcement on stock prices in various countries such as UK, U.S, China, Nigeria, Denmark. The under-developed countries which need more investments to overcome the un-employment and increasing per capita income which is possible only when investor's make more investments after getting more information via signalling effect of earnings announcement. Our study will contribute to existing literature in various aspect and attract the attention of the investors.

## 3. DATA AND RESEARCH METHODOLOGY

### 3.1 Data and Sources

In this study for practical implementation we selected 92 companies having more capitalization and listed on Karachi Stock Exchange of Pakistan (KSE) in KSE-100 Index across the period from 2010 to 2014. The reason

[^1]of selecting these companies is that only those firms regularly announced dividend and earnings having more capitalization which are necessary to analyze the impact of earnings announcement on stock returns. The companies included in sample met following criteria:

- Only, final earnings announcement are used during the event window, no quterley and interim earnings were included.
- Financial year of the companies must ended on June 30.
- During the event period, the companies should not change their accounting period.
- During the period the companies should be listed on Karachi Stock Exchange (KSE).
- To avoid confounding effects, other contemporaneously announced corporate events such as share issues, bonus share, stock splits, and share repurchases were excluded from the final sample in the event window of 41-days (20-days before and 20-days after) the earnings announcement date.
The first step is downloading of corporate announcements from KSE official website and then filtering earnings announcements of those companies listed on KSE. The financial information such as stock prices are extracted from the official website of Karachi Stock Exchange (KSE) and from other commercial website such as business recorder over the period of 03 May, 2010 to 28 July, 2014. The stock returns (SR) are taken as dependent variable which are derived from stock prices (SP) and it is the closing price of stock (at the end of the day) which extract directly from the official website of Business Recorder. The earnings announcement taken as independent variable where date of announcements used as an event window to check their impact on stock prices. Therefore we test the following hypothesis:
$\boldsymbol{H}_{0}$ : Earnings announcement has no impact on stock prices and investor's deportment.
$\boldsymbol{H}_{1}$ : Earnings announcement has an impact on stock prices and investor's deportment.


### 3.2 Methodology

Mostly, event study methodology is used in finance research as it is designed to investigate the relevance and magnitude of certain event such as financial and natural events on specified dependent variables. According to Kalay and Loewenstein (1985) event study is a best technique used to measure the valuation effects of corporate financial events, such as earnings and dividend announcement. (Aharony and Swary, 1980; Defusco et al. 1984; Chari, Jagannathan and Ofer 1988; Lonie, Abeyratna and Sinclair 1996; Suwanna 2012). The main purpose of using this methodology is to evaluate difference between the security returns and expected return which given by the model. The study related to finance under the event study mostly include stock prices as dependent variables. For an every event study it is necessary to pre-defined the event periods which is expressed as $(t=0)$ because after occurring the event the next day is very first trading day and then determining the returns according to that periods by designing an event window of 41 -days, before and after the event ( -20 days, +20 days). Once event period is define then returns generating model is employed respectively for simple and compound returns. The daily closing prices help to measure the pre and post stock prices returns in a 41-days event window. To estimate stock prices response first calculate log-returns which give a compound returns because it is theoretically better when combined the sub-period return to form returns over larger period by using this formula as:

$$
\begin{equation*}
\mathrm{R}_{\mathrm{i}, \mathrm{t}}=\ln \left(\frac{\mathrm{P}_{\mathrm{i}, \mathrm{t}}}{\mathrm{P}_{\mathrm{i}, \mathrm{t}-1}}\right) \times 100 \tag{1}
\end{equation*}
$$

Where:
$\mathrm{R}_{\mathrm{i}, \mathrm{t}}=$ Actual return or security return for share i at day t .
$P_{i, t}=$ Daily closing price of share $i$ at day $t$.
$P_{i, t-1}=$ Daily closing price of share $i$ at day $t-1$.
Another formula is also used to calculate simple return as: This is more suitable for short time period.

$$
\begin{equation*}
R_{i, t}=\left(\frac{P_{i, t}-P_{i, t_{-1}}}{P_{i, t-1}}\right) \times 100 \tag{2}
\end{equation*}
$$

Where:
$\mathrm{R}_{\mathrm{i}, \mathrm{t}}=$ Actual return or security return for share i at day t .
$P_{i, t}=$ Daily closing price of share $i$ at day $t$.
$P_{i, t-1}=$ Daily closing price of share $i$ at day $t-1$.
The abnormal or residual returns AR are known as the actual return which are calculated by using arithmetic percentages less the predicted returns of all the firms listed in KSE-100 index. The overall stock prices of KSE-100 index is known as market prices which are extracted from Karachi Stock Exchange (KSE). Various empirical models are used by the researchers over the number of years to estimate abnormal performance of any given event. The most commonly used model is market adjusted return model.

### 3.3 Market-Adjusted Return Model

In numerous study market model are used which have an explicit account of risk elements associated with means of actual and market returns (Chari, Jagannathan and Ofer 1988; Denmark Sponholtz 2008; Campbell and

Ohuocha 2011). In this study the Market Adjusted Return Model is employed to determine the abnormal returns. Another reason of using this model is that it is error-proof and avoids all extra computations involve in forecasting of security beta which is also use as assumption of Capital Asset Pricing Model (CAPM) and considered expected return of securities equal to the market return which shown constant return but it is not constant over the period, i.e. the value $\alpha$ and $\beta$ are set equal to 0 and 1 respectively. Under all above mention circumstances we employed market adjusted return model to forecast the actual and expected returns on stock prices for comparison by using the estimation window.
This is mathematically expressed as:

$$
\begin{equation*}
\mathrm{R}_{\mathrm{i}, \mathrm{t}}=\mathrm{R}_{\mathrm{m}, \mathrm{t}} \tag{3}
\end{equation*}
$$

Where:
$\mathrm{R}_{\mathrm{it}}=$ The expected return
$\mathrm{R}_{\mathrm{mt}}=$ The return of the market portfolio
The Market Adjusted Return Model are employed to calculate the expected returns by using following formula as:

$$
\begin{equation*}
E\left(R_{i, t}\right)=\left(\alpha_{i}+\beta_{i} R_{m, t}+e_{i, t}\right) \tag{4}
\end{equation*}
$$

Where:
$\mathrm{E}\left(\mathrm{R}_{\mathrm{i}, \mathrm{t}}\right)=$ Expected return on share $i$ at day $t$.
$\alpha_{i}, \beta_{i}=$ Market model parameters.
$\mathrm{e}_{\mathrm{i}, \mathrm{t}}=$ Random error term.
After determing stock returns then calculate abnormal returns for each share by following equation:

$$
\begin{equation*}
A R_{i, t}=R_{i, t}-E\left(R_{i, t}\right) \tag{5}
\end{equation*}
$$

Where:
$A R_{i, t}=$ Abnormal or excess return of share $i$ at day $t$.
$R_{i, t}=$ Actual return or security return for share $i$ at day $t$.
$\mathrm{E}\left(\mathrm{R}_{\mathrm{i}, \mathrm{t}}\right)=$ Expected return on share $i$ at day $t$.
After calculating abnormal return of all the sample firms which have more capitalization then overall KSE-100 index returns considered to be market returns. The average abnormal returns (AAR) for each day is calculate as:

$$
\begin{equation*}
\operatorname{AAR}_{i}=\frac{1}{N} \sum_{i=1}^{N} A R_{i, t} \tag{6}
\end{equation*}
$$

Where:

$$
\mathrm{N}=\text { Number of observation. }
$$

$A R_{i, t}=$ Abnormal or excess return of share $i$ at day $t$.
$\mathrm{AAR}_{i}=$ Average abnormal return of share i.
Finally cumulative average abnormal return (CAAR) is determine by the sum of average abnormal return over each day in the event window as:

$$
\begin{equation*}
\mathrm{CAAR}_{\mathrm{T}}=\sum_{i=1}^{\mathrm{T}} A A R_{i} \tag{7}
\end{equation*}
$$

Where:
$\mathrm{CAAR}_{\mathrm{t}}=$ Cumulative average abnormal return of each day t .
$\mathrm{AAR}_{i}=$ Average abnormal return
The study used two possible ways to investigate the impact of dividend announcement on stock prices, first is graphical representation and other is $t$-statistics test which are used to check the significance of daily abnormal returns. The study used following equation to check the significance level:

$$
\begin{equation*}
\mathrm{t} \text {-Statistics }=\mathrm{AAR}_{\mathrm{t}} * \mathrm{~N}^{0.5} / \mathrm{S}_{2} \mathrm{D}_{\mathrm{t}} \tag{8}
\end{equation*}
$$

Where:
$\mathrm{N}=$ Degree of Freedom.
$\mathrm{AAR}_{\mathrm{t}}=$ Average abnormal return at time t .
The significance level of CAARs is also determined by t -statistics equation as:
t -Statistics $=\mathrm{CAAR}_{\mathrm{t}} * \mathrm{~N}^{0.5} / \mathrm{S} . \mathrm{D}($ ARs $) \quad(9)$
Where:

## $\mathrm{N}=$ Degree of freedom

$\mathrm{CAAR}_{\mathrm{t}}=$ Cumulative average abnormal return at time t .
$S . D_{t}=$ Standard deviation of abnormal return at time $t$.

## 4. RESULTS AND DISCUSSION

In this section first of all 94 events of earnings announcement are examined by taking the event window of 41days, 20 -days before the event and 20-days after the event day i.e. $(-20,+20)$. By using an event window first we present the descriptive statistics for stock return of market prices then calculate the mean value of market return,
mean value of ARs and mean value of all companies listed in KSE-100 Index. These where determined on event day as well as for pre and post event day in order to check the impact of earnings announcement on stock market returns. The CAARs are also calculated in the same way for KSE-100 Index to check the impact of events on the stock returns. The average value of ARs indicate the effect of event while average value of CAARs showing the bad or good news and fluctuations in returns are due to earnings announcement as illustrated in Figure 1 and Table I.


Figure 1: Market AARs and CAARs
The market AARs on event day 0 is 0.180 and very next day on day +1 is -0.010 which is insignificant and negative which is illustrated in Table I. The market CAARs on event day (day 0 ) is 2.253 and on day +1 is 2.242 which is less than from day $0(2.242<2.253)$. The $t$-statistics result show that $t$-value of AARs on event day (day 0 ) is 2.176 and on day +1 is -0.139 which is insignificant and negative to the event day returns as illustrated in Figure 2. The $t$-value of CAARs on event day (day 0 ) is 4.55 and on day $+1 t$-value is 4.41 which is less than the event day value $(4.41<4.55)$. The market behaviour of AARs and CAARs to earnings announcement is visually inspected in Table I and Figure 1,2 which reveals that mean value of AARs and CAARs is insignificant and negative on (day +1 ) from the (day 0 ) which support to the null hypothesis $H_{0}$ that earnings announcement have not significant impact on stock returns. Similar to the case of Market AARs and CAARs before and after the event day, determined AARs and CAARs of all the sample firms whose stock is trading on Karachi Stock Exchange in KSE-100 Index.

Table I: Market Average, Cumulative Avg.returns and t-value of stocks

| Days | AARs | t-test | CAARs | t-test |
| :---: | :---: | :---: | :---: | :---: |
| $\mathbf{- 2 0}$ | -0.0290 | -0.3514 | -0.0290 | -0.3514 |
| $\mathbf{- 1 9}$ | 0.2534 | 2.6484 | 0.2245 | 1.7786 |
| $\mathbf{- 1 8}$ | 0.0814 | 0.9513 | 0.3059 | 1.9387 |
| $\mathbf{- 1 7}$ | 0.0461 | 0.6051 | 0.3520 | 1.9702 |
| $\mathbf{- 1 6}$ | 0.1499 | 1.5281 | 0.5019 | 2.2809 |
| $\mathbf{- 1 5}$ | 0.0598 | 0.8316 | 0.5617 | 2.4664 |
| $\mathbf{- 1 4}$ | 0.0989 | 1.0367 | 0.6607 | 2.4394 |
| $\mathbf{- 1 3}$ | 0.1926 | 2.0856 | 0.8533 | 2.9263 |
| $\mathbf{- 1 2}$ | 0.1607 | 1.5172 | 1.0140 | 3.0699 |
| $\mathbf{- 1 1}$ | 0.1767 | 2.2089 | 1.1908 | 3.5263 |
| $\mathbf{- 1 0}$ | 0.0442 | 0.4631 | 1.2350 | 3.3944 |
| $\mathbf{- 9}$ | 0.1160 | 1.3361 | 1.3510 | 3.6051 |
| $\mathbf{- 8}$ | 0.2099 | 2.0529 | 1.5609 | 3.9162 |
| $\mathbf{- 7}$ | 0.1074 | 1.1747 | 1.6683 | 4.1173 |
| $\mathbf{- 6}$ | 0.0402 | 0.4402 | 1.7085 | 3.9100 |
| $\mathbf{- 5}$ | 0.1183 | 1.4682 | 1.8268 | 4.2504 |
| $\mathbf{- 4}$ | -0.0165 | -0.2073 | 1.8103 | 4.0861 |
| $\mathbf{- 3}$ | 0.0443 | 0.5092 | 1.9190 | 3.1095 |
| $\mathbf{- 2}$ | 0.0643 | 0.6906 | 2.0725 | 4.1900 |
| $\mathbf{- 1}$ | 0.1535 | 1.9366 | 2.2535 | 4.5514 |
| $\mathbf{0}$ | 0.1810 | 2.1762 | 2.2426 | 4.4112 |
| $\mathbf{1}$ | -0.0109 | -0.1400 | 2.2072 | 4.1411 |
| $\mathbf{2}$ | -0.0354 | 0.3362 | 2.2550 | 4.1284 |
| $\mathbf{3}$ | 0.0478 | 1.2530 | 2.3911 | 4.2719 |


| $\mathbf{5}$ | 0.0141 | 0.1525 | 2.4051 | 4.1519 |
| :--- | :---: | :---: | :---: | :---: |
| $\mathbf{6}$ | -0.0800 | -0.8452 | 2.3251 | 3.8943 |
| $\mathbf{7}$ | -0.0524 | -0.4724 | 2.2727 | 3.7804 |
| $\mathbf{8}$ | -0.0765 | -0.7103 | 2.1962 | 3.5980 |
| $\mathbf{9}$ | 0.1365 | 1.4871 | 2.3326 | 3.7916 |
| $\mathbf{1 0}$ | 0.0429 | 0.4269 | 2.3755 | 3.7774 |
| $\mathbf{1 1}$ | 0.1213 | 1.2633 | 2.4968 | 4.0106 |
| $\mathbf{1 2}$ | 0.1349 | 1.4009 | 2.6317 | 4.2743 |
| $\mathbf{1 3}$ | -0.0022 | -0.0199 | 2.6295 | 4.2576 |
| $\mathbf{1 4}$ | 0.0804 | 0.7703 | 2.7099 | 4.3191 |
| $\mathbf{1 5}$ | 0.1393 | 1.3528 | 2.8492 | 4.4828 |
| $\mathbf{1 6}$ | 0.1179 | 1.0566 | 2.9671 | 4.5775 |
| $\mathbf{1 7}$ | 0.1409 | 1.3275 | 3.1080 | 4.8065 |
| $\mathbf{1 8}$ | 0.1678 | 1.6230 | 3.2758 | 5.0037 |
| $\mathbf{1 9}$ | 0.1222 | 1.3145 | 3.3980 | 5.1302 |
| $\mathbf{2 0}$ | 0.1792 | 1.9560 | 3.5772 | 5.3392 |

Notes: This table displays the average abnormal returns (AARs) and cumulative average abnormal returns (CAARs) for the market returns of 41 days event window around the earnings announcement ( $\mathrm{P}<.01$ ).

The AARs and CAARs of sample firms is illustrated in Table II and Figure 3. Particularly, on event day (day 0 ) the AARs of KSE-100 Index is -0.059 and the day after event (day +1 ) the AARs is -0.017 which is smaller than event day which is statistically insignificant. The same is true for the case of CAARs of sample firms on day 0 which is 0.333 and on day +1 the CAARs is 0.316 which is less than event day as illustrated in Figure 3.


Figure 2: t-statistics of AARs and CAARs


Figure 3: AARs and CAARs of KSE-100 Index
The $t$-statistics value of AARs of CAARs have decreasing tendency in the post event period after the event day (day 0 ) as illustrated in Table II and Figure 4. The $t$-value of AARs on event day (day 0 ) is -0.698 and on the very next day $($ day +1$) t$-value of AARs is -0.214 which is less than the event day. The $t$-value of CAARs of on event day (day 0 ) is 0.898 and on day +1 is 0.860 which is also less than event day. The result confirm that earnings announcement have insignificant impact on AARs and CAARs in the post event period which support null hypothesis $\mathrm{H}_{0}$ that earnings announcement have no impact on stock returns. Several interesting points
regarding findings are emerged in this study. The result in Table II indicated that stock returns have decreasing tendency in the period of post earnings announcement revealed that earnings announcement have no explanatory power about the firms future earnings performance which diminished the information among investor's.

Table II: AARs, CAARs and t-value of stocks of KSE-100 Index firm's

| Days | KSE-100 AARs | t-test | CAARs | t-test |
| :---: | :---: | :---: | :---: | :---: |
| -20 | 1.9315 | 1.9315 | 1.9315 | 1.9315 |
| -19 | 0.1357 | 0.1357 | 0.1357 | 0.1357 |
| -18 | 0.4872 | 0.4872 | 0.4872 | 0.4872 |
| -17 | 0.8861 | 0.8861 | 0.8861 | 0.8861 |
| -16 | 0.6953 | 0.6953 | 0.6953 | 0.6953 |
| -15 | 1.0523 | 1.0523 | 1.0523 | 1.0523 |
| -14 | 1.1110 | 1.1110 | 1.1110 | 1.1110 |
| -13 | 0.9791 | 0.9791 | 0.9791 | 0.9791 |
| -12 | 0.9583 | 0.9583 | 0.9583 | 0.9583 |
| -11 | 0.7799 | 0.7799 | 0.7799 | 0.7799 |
| -10 | 1.0782 | 1.0782 | 1.0782 | 1.0782 |
| -9 | 0.8267 | 0.8267 | 0.8267 | 0.8267 |
| -8 | 0.5730 | 0.5730 | 0.5730 | 0.5730 |
| -7 | 0.5701 | 0.5701 | 0.5701 | 0.5701 |
| -6 | 0.8068 | 0.8068 | 0.8068 | 0.8068 |
| -5 | 0.8552 | 0.8552 | 0.8552 | 0.8552 |
| -4 | 1.2021 | 1.2021 | 1.2021 | 1.2021 |
| -3 | 1.1484 | 1.1484 | 1.1484 | 1.1484 |
| -2 | 1.2594 | 1.2594 | 1.2594 | 1.2594 |
| -1 | 1.0884 | 1.0884 | 1.0884 | 1.0884 |
| 0 | 0.8985 | 0.8985 | 0.8985 | 0.8985 |
| 1 | 0.8608 | 0.8608 | 0.8608 | 0.8608 |
| 2 | 1.0632 | 1.0632 | 1.0632 | 1.0632 |
| 3 | 1.0057 | 1.0057 | 1.0057 | 1.0057 |
| 4 | 0.9555 | 0.9555 | 0.9555 | 0.9555 |
| 5 | 1.0679 | 1.0679 | 1.0679 | 1.0679 |
| 6 | 1.2069 | 1.2069 | 1.2069 | 1.2069 |
| 7 | 1.2337 | 1.2337 | 1.2337 | 1.2337 |
| 8 | 1.4434 | 1.4434 | 1.4434 | 1.4434 |
| 9 | 1.0750 | 1.0750 | 1.0750 | 1.0750 |
| 10 | 0.8987 | 0.8987 | 0.8987 | 0.8987 |
| 11 | 0.5268 | 0.5268 | 0.5268 | 0.5268 |
| 12 | 0.1507 | 0.1507 | 0.1507 | 0.1507 |
| 13 | 0.1819 | 0.1819 | 0.1819 | 0.1819 |
| 14 | -0.0262 | -0.0262 | -0.0262 | -0.0262 |
| 15 | -0.4194 | -0.4194 | -0.4194 | -0.4194 |
| 16 | -0.5107 | -0.5107 | -0.5107 | -0.5107 |
| 17 | -0.7727 | -0.7727 | -0.7727 | -0.7727 |
| 18 | -0.8872 | -0.8872 | -0.8872 | -0.8872 |
| 19 | -0.9500 | -0.9500 | -0.9500 | -0.9500 |
| 20 | -1.1293 | -1.1293 | -1.1293 | -1.1293 |

Notes: This table displays the average abnormal returns (AARs) and cumulative average abnormal returns (CAARs) for the KSE-100 index firms of 41 days event window around the earnings announcement ( $\mathrm{P}<.01$ ).


Figure 4: t-statistics of AARs and CAARs
Su (2003) reviewed that earnings information are based upon on the firm size because largest firms provide more accurate financial and earnings information (Korczak and Tavakkol, 2004). Louhichi (2008) reason-out that during earnings announcement volume of trade is high abnormally but no impact on stock prices.

## 5. Conclusion

The study assessed the information around the firm's future earnings performance and worth of earnings released to investors on KSE, by analyzing the stock prices reaction to earnings announcement. Our findings shows that earnings announcement have a statistically insignificant impact on stock prices which fail to reject the null hypothesis that earnings announcement have no impact on stock prices. The observation that stock prices decreased in the post announcement period also offers some support for random walk theory and behavioral finance theory. Overall, the findings of my study suggested that stock prices variations in Pakistan with respect to earnings announcement are not random but follow the pattern which reduced the ARs and CAARs around the periods of earnings announcement, this result is not contrast, it should similar with previous findings of Afego, (2013) which is that earnings announcement have no impact on stock prices. The result overall support the null hypothesis that earnings announcement have no impact on stock prices but Beaver (1968) point-out that earnings announcement provide information to investors which are pre-consolidate in stock prices as conveyed by earnings report which used by investor's to forecast future earnings and adjust stock prices. According to our study there is negative correlation between information in content of earnings and stock prices. On the whole of our findings suggested that stock returns response to earnings announcement not disclouse information randomly from the sample of firms in our study which offer some support for the behavioral model. The study has a number of limitations, most notably that in Pakistan there is no official source to extract the exact dates of financial events such as dividend and earnings announcement. The market must be efficient for event study methodology to observe an impact of events on the stock prices. It can't be guaranteed however, the firm's used as sample in the study meeting the assumption or not so the results may biased. The size of firms not put into consideration for the sample firms because some individual stock holding firm provide less information to investors than the large institution which provide more accurate information about the firm's future earnings performance. Our study is typically paying attention on investor's deportment to uncovered uncertainty involved in the Pakistani firms about future earnings performance which will assist firms to make informed decision concerning investment which ultimately rises the growth of the country but this study failure to provide any predictive information to investor's about the firms future earnings performance because in Pakistan firms have to face the numbers of problems like energy crisis, political and economic instability due to this firms profitability fluctuate and ultimately stock returns decreased. In another prospective investors may get signal from decreasing stock returns about the firm's future earnings performance but mostly when stock returns decreased then firm's adjusted their stock prices before spreading this news in the market for maintain the investment opportunity. After reviewing the methodology, empirically findings and conclusion of the study, future research should be directed to improve and continue the research in this field. Some important and relevant recommendations are to expand the area of research might be required large sample size to analyze the effects of events in order to provide more comprehensive evidence and use different models of analysis i.e. GARCH and SKEW test in order to check the significance level if any changes are observed in the study.

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[^0]:    ${ }^{1}$ Divecha and Morse (1983); Lee and Marcus (1984); Lee (1996); Chiang et al. (1997); Chordia and Shivakumar (2006); Park (2010); Sare et al. (2013).
    ${ }^{2}$ Aharony and Swary (1980); Chen and Wu (1999); Araujo et al. (2011), Defusco et al. (2014).

[^1]:    ${ }^{1}$ Capital Asset Pricing Model (CAPM) is also known as Sharpe Model.
    ${ }^{2}$ Retention rate, Cost of capital, and Marginal Productivity.
    ${ }^{3}$ The semi-strong form of efficiency test are conducted to analyzed the security price whether it reflect information available publicly.
    ${ }^{4}$ In 1982 Robert F. Engle presented Generalized Autoregressive Conditional Heteroskedasticity (GARCH) model to forecast the financial market volatility and get memorial prize in 2003 on this approach.

