

# The Effect Of Economic Value Added On Stock Return: Evidence From Selected Companies Of Karachi Stock Exchange.

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## ABSTRACT

EVA can be used for the purposes of setting organizational goals, performance measurement, determining bonus, communication with shareholders and investors, motivation of managers, capital budgeting, corporate budgeting, corporate valuation, etc. The study is aim to find the effect of economic value added (EVA) on stock return of companies listed at KSE-100 index. Research model uses the panel data technique. A sample of 59 listed selected companies out of 100 companies listed at KSE. Data collected on annual basis, interpreted and analyzed from the year 2006 to 2010. The model is estimated for sample companies in different industrial group levels. Results indicate that the value of the stock is affected by variable economic value added (EVA) and it is significant at a level less than 10%. Economic Value Added (EVA) is a key performance index that initiates or motivates companies to find out ways to increase efficiency of capital utilization and consequently produce a superior operating performance, and therefore should in theory reflect a stock's intrinsic value.

**KEYWORDS:** EVA, Stock Return, KSE. Shareholders value, value creation

## INTRODUCTION

Economic Value Added (EVA) is basically a management technique which is developed by Stern Stewart & Company (Stern, 1985; Stewart, 1991; Stern, Stewart and Chew, 1995). It gives a way to calculate the economic value achieved or created by the firm over a particular period of time. It acts as an input variable that makes the basis and guide management for their decision making (Bromwich and Walker, 1998; Chen and Dodd, 1997).

Economic Value Added (EVA) can be understood as the change in NOPAT (Net Operating Profit after Taxes) less the change in the COC (Cost of the Capital) of a firm that it uses to generate the net operating profit (Rappaport, 1986, 1998). Hence, EVA basically relies on the firm operating profit, taxes, debt level, and the cost of capital. This management technique is less developed in early 80s, but in the 90s it becomes prominent among firms. Before this technique managers can easily make manipulation in accounting techniques and change the performance measure according to their desires. EVA is now considered as the best economic measure for assuming the shareholder wealth. (Dyl, 1989; Gomez Mejía & Balkin, 1992; Hunt, 1985; Jensen & Murphy, 1990; Verrecchia, 1986).

The EVA technique initially opted by some big and successful firms like Coca Cola, DuPont, Whirlpool and many more. As the primary objective of any business is to create wealth for its owners so at least organizations must provide a growth dividend to those who have invested expecting a value reward for their investment. When a company creates value and grow, ultimately society as a whole will also get benefits. On the long-term point of view, just about every firm's goal is to improve their worth which often thus leads to progress within shareholder success. Owning a firm with contract using the basic principle regarding value maximization involves detailed requirements for progress with shareholder prosperity. So, it is necessary to find a technique which usually permits planning, management, and also control this firm's techniques as per this specific basic principle. Normally, firms tend to be handled on combining proper along with financial ambitions. Within proper ambitions just one usually undertakes, for example, the actual advancement connected with new accounting information performance measure, the actual research pertaining to new market pieces, or even the actual advancement connected with market reveal (Largani & Fathi, 2012).

Stock Market investors always seek to achieve high profits. They purchase the stock which is best in their own view and retain it in order to get highest output as well as relative profit is associated. Maximizing shareholders

value is the modern corporate and business paradigm. Corporations will ultimately decline from the phase, if the preference is not given to this curiosity of shareholders. Value of shareholders increase in terms of returns they achieve from their investment in the market. The return can have two forms; it can be in the form of dividends or as capital appreciations. Capital appreciation depends upon the fluctuations within the value of stocks in the market. While these fluctuations in the market value of stocks depends on number associated factors which range from company internal to external advertising specific factors. Stakeholders use financial information available in public publications to be able to assess the firm's current performance and forecast the future returns while investing (Sharma & Kumar, 2010)

Traditional as well as value-based are the two main classes of performance appraisal indexes of companies inside capital market. Under traditional appraisal indexes like revenues, dividend per share (DPS), return on equity (ROI), return on assets (ROA), cash flow (CFs) etc. of the investment in capital market were common over a long time period until value-based indexes were proposed which leads to companies performance appraisal. In traditional approach performance value is determined by only accounting profit which seems not a favorable method on account as it ignores the charges of securing investment capital which are main resources of organizations. Economic value-added index is just about the newest value-based indexes. According to this index value, the company depends on return as well as the applied capital charges. Therefore, the difference among economic value-added and traditional indexes is its attempt of this method to consider all financing costs (Hasani & Fathi, 2012).

For capturing the true economic profit, Economic Value Added (EVA) of an enterprise is best measure of financial performance. EVA takes an important position in modern financial and economic area that has been less debated among researchers and practitioners. As EVA is a performance measure and it is closely linked to shareholder wealth over time. Shareholders critically examine the business for their selective interest and expect that management have to work for their interest. Thus, EVA is important in sense that how much economic value is added by the management to the shareholders wealth while other traditional tools depended on accounted generated information. But accounting just brings historic data or distorted data which have no relation with real performance of company, while on other hand EVA makes viable performance measure of enterprises (Shil, 2009).

EVA is now becoming the most demanding tool for owners as it helps them in every situation. Large companies implemented EVA which motivates managers for the creation of shareholders worth (Dodd & Chen, 1996). Positive and negative signs give simple decision rule to managers to increase or decrease in the worth of shareholders value. If EVA has positive sign, it will increase shareholder value and converse is very true. Positive EVA depicts that net operating profit after tax (NOPAT) is greater than adjusted cost of capital. Contrary to this, if the value of adjusted cost of capital is greater than net operating profit after tax (NOPAT) shows negative EVA (Stewart, 1991).

Stern Stewart & Co has undertaken several adjustments to the net operating profit accounting to prevent the impact of accounting policies on the profit. In order to avoid any negative impact on the profit, companies made several adjustments in the accounting police. Adjustments have been introduced in the invested capital for average cost of capital calculations. Hence, adjustments lead to calculate net economic profit not for accounting profit (Maitah, GALah, & Bashir, 2011).

### **Concept of value creation**

Gary, Wallace, Biddle, & Bowen (1997) disclosed which EVA is hugely associated with investment returning seeing that review to be able to accrual earning when studied for the component of EVA facts information investigation along with incremental investigation suggest the bigger affiliation of earning along with return and therefore outperforming EVA pertaining to stock return (Gary, Wallace, Biddle, & Bowen, 1997). EVA is in favor of the share holder since it can be describing the worth of the agency from the variety stock return while evaluate to be able to other conventional indicator thereby ultimately causing this running productivity of the firm (Lehn & Makhija, 1997) and (Zimmerman, 1997). The actual sign in order to measure the shareholder value, next to the traditional tools EVA can also be helpful to measure performance with the firm and impacts stock return of the firm with the firm (Stern, Stewart, & Chew, 1995).

The U.S researcher (Peterson & Peterson, 1996) tend to be on the realization in which EVA is really a bad indicator on the market worth on the organization or maybe it has unimportant relation with stock return hence leading to this lake connected with side of the bargain connected with EVA. It absolutely was learn by means of (Chen & Dodd, 1997) of which EVA offers reduced explanatory electrical power with variability regarding stock

options go back as examine to help ROA where any time it turned out in comparison with ROE and EPS it can be predicting greater contribution with stock return compared to each of them.

Clinton & Chen (1998) examine is actually and only larger explanatory power associated with residual cash flow (RCF) since compare in order to EVA hence implying a large connection associated with RCF having stock return. Involving EVA along with NOPAT this variance inside MVA is usually explained by simply NOPAT far more hence this insignificance associated with EVA inside MVA driven by (Kramer & Pushner, 1997).

The study regarding (Lehn and Makhija, 1997) is in favor of EVA as assess to help other earning variables and that is of your thoughts and opinions unique of almost the entire analyst who are in the other thoughts and opinions. EVA in addition to REVA are generally equally accustomed to appraise the performance in the organization, playing with evaluation the REVA will be superior to the EVA within this concern (Bacidore, Boquist, & Milb, 1997).

The research conducted by (Anand, Greg, & Arora, 1999) created in which revenue after taxes includes a higher degree of effects using MVA. This thought associated with shareholder price EVA, practiced EVA as well as MVA gauge the particular organization functionality within an effective technique.

The study of (O'Byrne, 1996) stated EVA at the time of better importance and also predicting substantial instructive power since review to help NOPAT within contribution toward market to equity ratio percentage where as EVA coefficient is actually hauling equally damaging and also optimistic beliefs and also identical will be the circumstance together with adjustments within market value.

Studying the EVA materials we can find combined outcomes. Similarly there is a materials, appeared about academics in addition to practitioners' newsletters, seeking to present of which EVA will increase shareholders worth (Petit, 2000; Stewart, 1991, 1994; Stringent, Stewart & Chew, 1995). In this particular line we can find reports of which monitor an optimistic in addition to substantial connection among EVA in addition to market price increment (Walbert, 1994), in addition to shareholder results (O'Byrne, 1997). The popular literature has additionally devoted a new attention about good attributes regarding EVA (Davies, 1996; Tully, 1993, 1994, 1998, 1999; Walbert, 1993).

#### **Accounting Profit and Earnings Management**

Many authors state that huge valuations are on a yearly basis designed inside organizations due to the fact sales can be used pertaining to decision making, it is argued that huge valuations are demolished applying accounting data (Wallace, 1997; Rajan, 2000). Established financial concept advises the corporation's final purpose would be to make best use of the wealth maximization of its stockholders. That will mustn't be shocking given that frequent stockholders (principals) which personal the organization are generally traders along with expect good long-term produce on their investment. Considering that the comfort connected with corporate governance has zero in numerous organizations, maximization connected with stockholders' wealth can be doubtful.

A profit managing is just not a fresh trend. It takes in magnified press and investor attention within an environment where the current market punishes brokers that do certainly not meet their earnings quotes. It can't be denied that data processing techniques are chosen by means of brokers to meet anticipation involving shareholders along with experts. The cursory analyze with the Securities And Exchange Commission's a lawsuit funds implies that adjustment involving income constituted almost 20 % with the cases added by the section involving enforcement. Nearly 33 % of the measures have been intended for the wrong type of revenue identification. In addition, troubles have been likewise famous: your payment is actually escalating its sanctions in opposition to agents whom devote scam with respect to the corporation. Next, your payment is actually stretching its sanctions to include not simply older representatives, nevertheless people inside cycle connected with command whom knowingly usually are committing scam.

Metrics including ROI, ROE, return on assets (ROA), and earnings for each share (EPS) are utilized while the most important performance methods and in some cases like a benefit starting throughout a lot of companies, while these are imagined not to correlate while using shareholder value formation very well. From this background you will need to identify virtually any correlations between so-called worth primarily based actions which may have obtained a great deal of consideration inside recent years and also inventory rates. These kinds of overall performance metrics look for to determine the actual recurrent overall performance regarding maximizing importance which often can lead to maximizing long-term produce with shareholders' investment. Garvey and Millbourn (2000) claim that "a suitable overall performance gauge will not need to possibly be too carefully associated with the actual share price". At this time there is an infinite number of inconsequential and inappropriate procedures which healthy this specific requirements of being not related towards share price.

#### **Statement of Problem**

Proponents of EVA claim that EVA is highly correlated with stock returns. EVA derives stock prices better than other accounting based performance indicators. Hence, the relationship between Economic Value Added and profitability of the company with stock exchange value of companies is studied during the time period 2006-2010 in the present study.

### Objectives of the Study

Although the validity theory of the existence of the relationship between EVA, the shares price, and value exists the usefulness of any indicator of performance measured by the presence of relationship the moral process between the indicator and behavior of actual stock prices on the securities market is unknown (Kothari, 2001). Therefore, the general objective of the study is an empirical investigation of the relationship between EVA and stock prices, and an analysis of the benefit of the use of EVA in the design of investment policies that can be used to achieve extraordinary returns. Other objectives are:

- To examine the relationship between the stock return and EVA (Economic value added) whether they exhibit positive or negative relationship.
- On the basis of this relationship, provide direction for Pakistani firms to use EVA as performance measure.
- To encourage the share holders to consider the EVA as a weapon for measure the creation of wealth and take a better decision.
- To provide the authentic evidence of EVA terminology in Pakistani market.

### Scope of Study

Scope of the study in general term means the extent to which it is possible to cover the subject, this study attempts to cover almost all the tools and techniques for the purpose of evaluating the financial dialectics. EVA can be used for the purposes of setting organizational goals, performance measurement, determining bonus, communication with shareholders and investors, motivation of managers, capital budgeting, corporate budgeting, corporate valuation, etc.

### LITERATURE REVIEW

Economic Value Added concept is not a very new concept. According to (Dodd & Chen, 1996) the idea of residual income appeared first in accounting theory literature early in this century as (Glasser, 1996) and appeared in management accounting literature in the 1960s. Finnish academics and financial press discussed the concept as early as in the 1970s. It was defined as a good way to complement ROI control (Virtanen, 1975). In the 1970s or earlier residual income did not get wide publicity and it did not end up to be the prime performance measure in great deal of companies. However EVA, practically the same concept with a different name, first time was appeared in 1980. During the decade of 1990, it spreads widely among firms.

The particular beginning with the value additional concepts date all the way returning to the early 1900's (Bromwich & Master, 1998) Stern Stewart & Co trademark EVA in 1990's if the indicator is actually presented as well as consequently followed through numerous main companies that guide EVA to get successful stories for the very beginning. Mostly specialized literary works largely aimed at presenting, promoting or maybe dealing with the EVA aspects with regards to asking function. While many of this, to some extent anecdotal, literary works talks about why people love the style using a few crucial views also. Subsequent sources are too numerous for an extensive listing, but for instance there is material such as (Milunovich & Tsuei, 1996; Anctil, Jordan & Mukherji, 1998; Damodaran, 1999; Mouritsen, 1998; Bowen & Wallace, 1999; Dodd & Johns, 1999)

O'Byrne (1996) concludes, "EVA, contrary to NOPAT [net operating profit after taxes] or even additional profits procedures like net profit or even profits per share, can be systematically linked with market worth. It should give you a greater predictor associated with marketplace worth in comparison with additional procedures associated with working functionality. "Additionally (Uyemura, Kantor & Pettit, 1996) arrive at similar results. Stark & Thomas (1998) produce "some help for promotes associated with the application of residual income (RI) for setting up along with control" from the marketplace relation.

However, (Biddle, Bowen & Wallace, 1997) find "little evidence to support the Stern Stewart claim that EVA is superior to earnings in its association with stock return or firm values". Chen & Dodd (1997) conclude which EVA measures provide somewhat more info as opposed to regular measures associated with sales with regard to the actual stock return association, but which EVA should not totally replace the traditional measures given those measures such as E/P, ROA and also ROE get incremental worth throughout supervising organization functionality. They also observe that there is not any significant difference between EVA as well as the regular RI with regard to the actual association together with stock profits.

Several authors talk about (Chen and Dodd, 2001) within the vast majority of instances these types of reports solely present anecdotal tales concerning the stunning stock returns involving EVA companies as soon as the EVA adopting, yet solely discover very poor relationship between EVA in addition to corporation performance measure.

Brickley, Smith and Zimmerman (1997), considering the most important operations styles shown up in the last decades, catalog this EVA while yet another operations trend. O'Halon & Peasnell (1998) talk about the key features with the EVA, although while doing so issue his or her power, along with posit that we will have to hang on time to evaluate in the event EVA is usually a truly effective operations technique. Additionally, there

are empirical scientific studies wondering your proficiency connected with EVA. Fernandez (2001), employing a representative taste connected with United states and also Western European firms, and also dependent on facts offered by Demanding Stewart & Organization, examines your connection relating to the MVA (Market Value Added) and also the EVA, NOPAT (Net operating profit after taxes), and also WACC (working asset cost of capital). Fernandez observes a low (and sometimes negative) connection involving EVA and also MVA, and also wraps up in which NOPAT and also WACC found increased levels of connection together with MVA. These kinds of results are within the type of those attained by means of (Biddle, Bowen and Wallace, 1997; Riceman, Cahan and Lal 2000; Kramer and Pushner, 1997).

Biddle, Bowen & Wallace (1997), determined because of the surge within the use of EVA, and also using files offered by Strict Stewart & Organization, considers the EVA information content material regarding different accounting-based methods. In the exact same context, (Chen and Dodd, 2001) examines the information content material (in terminology of value-relevance) of managing revenue, continuing revenue, and also EVA. Applying different screening methods, many people see that managing revenue and also continuing revenue current higher information content material amounts than the EVA estimate. Similar results are obtained by (Clinton and Chen, 1998). Thus we see that the literature provides several studies questioning the claimed superiority of EVA to earnings or other accounting measures in its association with stock returns or firm values.

Moreover, Wallace (1997), inspecting an example regarding 40 businesses that will adopt continuing profits settlement plans (23 advisors utilizing the EVA technique), purchases many essential a conclusion. Primary, he observes that will businesses that will adopt continuing profits settlement plans don't current statistically substantial unnatural profits over the market place portfolio. As well he observes that will these businesses that will adopt continuing profits settlement plans current remarkably substantial increments within their continuing profits actions, a "you get what you gauge along with reward" sort of impact.

The usefulness associated with traditional sales measures, for instance revenue each write about (EPS), return on assets (ROA) along with return on equity (ROE), along with their influence on shareholder (market) importance, and have been mentioned for quite a while. Because 1990s, solid justifications have been brought up simply financial importance added in (EVA) as a possible sales calculate, generally by the Demanding Stewart Contacting Company along with affiliates (Stewart, 1991 & Stern, 1993).

A lot of the scientific studies coping with shareholder importance design have got looked at the information articles connected with modern efficiency steps over the standard steps. Most these kind of scientific tests have got analyzed their bond involving standard steps as well as fiscal earnings steps (EP, AVOI, MVA, as well as REVA). The goal of this post had been to make use of data from Iran stated firms to research the potency of their bond involving REVA, SVA as well as CVA together with standard information accounting measures.

Sharma & Kumar (2010) reviewed conventional as well as value added measures involving overall performance as well as identified of which conventional actions are not empirically less in connection with share earnings compared to return on capital.

Shil (2009) ended in their particular investigation that there is zero considerable relationship relating to the explanatory power of Residual Income (RI) review products in addition to unusual generating progress inside the determination regarding companies' importance in one payment in addition to in different industries. Moreover in addition to about to all conditions, RI review type features a somewhat increased informative energy in determining firms' importance.

Chmelikova (2008) applied an example in the food-processing companies from the Czech Republic calculate relationship among EVA as well as sales steps (ROA, ROE) that this regression analysis effects suggest in all cases a positive letters among EVA as well as financial overall performance metrics as well as present good quality facts content material of EVA warning in relation to the opportunity to develop shareholder prosperity compared to the conventional overall performance steps.

Chen & Dodd (1997) determine which EVA procedures produce somewhat details than the standard procedures involving sales with regards to your stock options return organization, although which EVA should never completely replace the regular procedures due to the fact procedures such as E/P, ROA and also ROE include incremental importance with monitoring firm functionality. They also observe that there's no significant difference involving EVA plus the standard RI with regards to your organization using stock options profits.

Dodd and Chen (1996) employed 1992 Stern Stewart 1000 database like a starting place and also extra many ancillary information for the ten years via 1983 in order to 1992. These people gathered comprehensive information for 566 ALL OF US companies and also set out to test your claim that EVA is a superior way of measuring shareholder benefit effectiveness.

Though that they does discover a relationship involving write about earnings along with EVA, it had been definitely not as high as earnings along with ROA. De Wet (2005) concludes that do definitely not support the proposed brilliance regarding EVA. The outcome advises more robust interactions involving MVA along with income from businesses. The research furthermore found almost no relationship involving MVA along with

EPS, or even involving MVA along with DPS, ending that this believability regarding write about value dependant on earnings or even payouts has to be wondered.

Promoters involving EVA declare that EVA is much correlated using stock options dividends. EVA derives stock options price varies (Stewart, 1995; Medeiros, 2005) a lot better than additional accounting dependent overall performance indicators. Lefkowitz (1999) studied the us firms in addition to link between case study supported Stern- Stewart hypothesis, i.e, EVA is better correlated using stock options dividends in comparison with standard overall performance measures. These people observed that EVA is reasonably reputable guideline to know this firm's value. Machuga et al. (2002) into their examined outlined that will EVA may be used to enrich foreseeable future earnings. Lehn & Makhija (1997) researched the degree involving relationship concerning unique effectiveness actions in addition to stock market return. The outcomes indicate that will EVA will be the nearly all highly correlated measure having stock results. Various Reports will also be carried out about Incremental info articles checks involving AVOI and supply evidences that it contributes significant explanatory capacity to EPS in describing stock returns.

Paulo (2003) analyzed the actual usefulness involving EVA and abnormal income revenue of people firms and final results reveal that will EVA is often a significant element in market profits and its explanatory power will be beyond that will involving information accounting profit. Chen and Dodd (1997) documented that will EVA measure offers reasonably much more information compared to the conventional methods involving measuring accounting profit. Additionally they identified that will EVA and RI (Residual Income) issues usually are very correlated and similar with regards to affiliation with share returns. Worthington and Western (2004) provided Foreign evidences concerning the facts information involving EVA and concluded that share profits to be more strongly connected with EVA compared to residual income, earnings and net cash flow.

There are many researches that do not necessarily help claim that EVA offers superior stock returns. (Biddle, 1997, 1999) reviewed an example connected with firms in the time 1984-93 simply by comparing the stock trading profits in opposition to EVA, Residual Profits as well as operating cash flow. The effects don't help that will EVA characterizes traditional functionality methods in the association while using the stock market profits. Ismail (2006) done research on EVA and affiliation together with share profits as well as accounting earnings and share returns as well as observed net operating profit taxes as well as net income outperform EVA throughout outlining share profits. Even more, this particular analyze claims which accruals as well as working income flows have got considerable incremental details written content compared to EVA.

#### **Economic value added (EVA) versus Stock Returns**

The literature in organizing operations determines about three issues with deciding a selected business performance: industry, corporate and firm factors (Bowman & Helfat, 2001). Schmalensee (1985) has to examine at which usually issues between these kinds of about three possess the most important impact in the business profitability and the industry's profits. He / she studies in which about 75% deviation associated with sector returns could be spelled out through sector components. Compared, only 20% with the deviation inside business profitability could be spelled out through sector side effects. Having a detailed dataset, (McGahan and Porter, 1997) take a look at your impact associated with influence of industry, firm-specific and corporate-parent components within the profitability associated with both broad economic areas and the economy people community organizations with SIC categories. Their own results are consistent with Schmalensee's studies for the reason that sector side effects possess greater influence on profitability.

Wernerfelt and Montgomery (1988) utilize a various overall performance measures, to help carry out the research and statement identical final results. However the final results around the impact between sector components and firm-specific effects in deciding this business overall performance continue to be blended (Rumelt, 1991), many past empirical reports produce evidence that sector components convey more powerful impact on productivity associated with economic sectors. Cardenete and Sancho (2006) explain how the economic impact of the market in a provided economic climate might be recognized as well as quantified simply by market analysis. A lot of literature shows diverse points of views your impact connected with industry components on investment profits.

Moskowitz and Grinblatt (1999) examine the effectiveness of individual stock momentum exchanging approaches along with industry momentum exchanging approaches. Your creators indicate that will investment decision approaches according to "buying shares from beyond profitable companies in addition to selling shares from beyond sacrificing industries" will outshine exchanging approaches involving particular person stock impetus. Business momentum investment decision approaches perform better throughout predicting stock dividends.

Baca, Garbe and Weiss (2000) illustrate industry sector effects have surpassed country effects with outlining different versions of currency markets earnings of formulated international locations lately. Determined by this research given by previous scientific tests, it can be thought of which marketplace industry investigation on EVA

is commonly more appropriate for the assessment no matter if EVA is usually a far better value-relevant functionality gauge than the conventional methods.

### **EVA versus Other Performance Measures**

One of several downsides in applying earnings-based numbers like net income and also cash flow via operations in order to measure the company's effectiveness can be that they can only show you their interest expense. The cost of equity capital can be dismissed. Subsequently, it really is hard to discover if this organization has generated wealth because of its shareholders. Additionally, the correlation among income and also investment earnings can be fairly low. Sloan (1993) proves that income only indicate how business-specific factors affect modifications in investment charges and also can't seem to indicate how investment charges modify regarding exterior friendly factors.

Lehn and Makhija (1997) take a look at on-line meaning involving accounting profit performance measures (ROA and ROE), stock performance measures (RET), and value-based performance measures (EVA and MVA), respectively, determined by a data bank involving 452 large United states firms over 1985–1994. They will state there's a substantially beneficial relationship in between value-based effectiveness procedures and stock return results and consider that will EVA is usually a far better effectiveness evaluate.

Biddle et al. (1997) state which cash flow command EVA with describing stock return from the comparable facts information examination. Not simply perform cash flow outperform EVA, but conventional data processing benefit charges for instance ROA, ROE and also EPS are an improved measure of agency functionality compared to EVA. Dodd and Chen (1996) research the connection connected with EVA, RI, EPS, ROE and also ROA together with stock returns respectively utilizing a trial connected with 566 United States businesses over the period of 1983–1992. These people conclude which unadjusted data processing methods possess increased connection together with Stock returns compared to EVA. Copeland, Dolgoff and also Moel (2004) create analyzer anticipations to the evaluation and also statement identical effects. A current extension connected with functionality measurement will be the introduction in the EVA-to-market value (EVAM) percentage simply by (Leong, Pagani, and Zaima, 2009). Leong et al. (2009) take a look at no matter whether portfolios put together by using the EVAM percentage will probably produce higher results compared to portfolios shaped together with earnings-price (EP) percentage and also book-to-market (BM) percentage and also are not able to locate any kind of statistical variation in them.

### **Hypothesis of the study**

**H0:** There is no association between stock return and EVA (Economic Value Added) in manufacturing sector of Pakistan.

**H1:** There is an association between stock return and EVA (Economic Value Added) in manufacturing sector of Pakistan.

### **Distinction of this Study**

Present study has been conducted to find out various issues underlying EVA and to present them at a single place. Another rational of this study is that empirical studies conducted till date on EVA in different countries have used different methodology and variables to prove their respective hypothesis. This study is a step to bring out to determine the effect of economic value added on stock return specifically in KSE listed companies of Pakistan.

### **RESEARCH METHODOLOGY**

In this study, we have used secondary data which has been extracted from authentic data bases like State Bank of Pakistan and Business Recorder. We estimate the research model using the panel data technique. A sample of 59 listed selected companies out of 227 companies listed in KSE 100 index. Data collected, interpreted and analyzed from the year 2006 to 2010. The model is estimated for sample companies in different industrial group levels. As shown in the below table we have selected non financial companies consisting of six industries in the study. The reason behind the selection of non financial companies is that we can compute economic value added (EVA) of non financial sector as financial sector mostly consists of services companies.

**Table - 1: The sample of selected non-financial listed companies on KSE 100 index**

Sr.	Industries	2006	2007	2008	2009	2010	Total Sample	
							no.	Percent
1	Cable and Electrical goods	7	7	7	7	7	35	11.9%
2	Cement Industry	10	10	10	10	10	50	16.9%
3	Food and care products	10	10	10	10	10	50	16.9%
4	Textile & Spinning	11	11	11	11	11	55	18.6%
5	Automobile Parts	13	13	13	13	13	65	22.0%
6	Chemicals	8	8	8	8	8	40	13.6%
Total		59	59	59	59	59	295	100.0%

### Model

$$R_{it} = \alpha + \beta EVA_{it} + \varepsilon$$

$R_{it}$  = Stock return of selected companies

$EVA_{it}$  = calculated from the financial reports of companies

**Data Analysis:** The results of our statistical tests and model by following the analytical tools described in the table below We applied these statistical tools in Eview 7.

**Table: 2 Descriptive Statistics of Variables**

	R	EVA
Mean	-0.055790	-4957497.
Median	-0.049282	-840178.7
Maximum	1.178588	2516979.
Minimum	-1.120360	-93955311
Std. Dev.	0.239334	11446676
Skewness	0.300532	-4.035716
Kurtosis	7.775864	23.65339
Jarque-Bera	219.1510	4650.763
Probability	0.000000	0.000000
Sum	-12.66425	-1.13E+09
Sum Sq. Dev.	12.94547	2.96E+16
Observations	227	227

### Interpretation of results

Average value of the series stock return (SR) during the period of 2006 to 2010 is -0.055790 represented by mean in the above table. Maximum and minimum values of the series are 1.178588 and -1.120360 respectively. Positive skewness value tells that series has a long right tail. Kurtosis value is greater than 3, it means series has peaked distribution with respect to normal. In the same way, when we see the average value of the series economic value added (EVA) during the period of 2006 to 2010 is -4957497 represented by mean in the above table. Maximum and minimum values of the series are 2516979 and -93955311 respectively. Negative skewness value tells that series has a long left tail. Kurtosis value is greater than 3, it means series has peaked distribution with respect to normal.



## Regression Analysis

**Table: 3**

Dependent Variable: R

Method: Panel Least Squares

Sample: 2006 2010

Periods included: 5

Cross-sections included: 46

Variable	Coefficient	Std. Error	t-Statistic	Prob.
EVA	2.45E-09	1.30E-09	1.885636	0.0606
R-squared	0.037440	Mean dependent var		-0.055790
Adjusted R-squared	0.037440	S.D. dependent var		0.239334
S.E. of regression	0.243868	Akaike info criterion		0.020013
Sum squared resid	13.44054	Schwarz criterion		0.035101
Log likelihood	-1.271521	Hannan-Quinn criter.		0.026102
Durbin-Watson stat	2.294658			

Note:(\*significant at 10%) (\*\*significant at 5%) (\*\*\*)significant at 1%)

## Interpretation of results

Results mentioned in the above table show the relationship between stock return and economic value added (EVA). It's evident from our p-values and t-statistic that the variable including constant term inside the model tends to be highly major. As far since the overall fit on the model is concerned the coefficient involving Determination(R-Sq) as well as the adjusted coefficient involving determination(R-Sq (adj) and F statistic show which the model is an excellent fit.

The  $R^2$  tells that how much change occurs in one (dependent) variable by changing another (independent) variable. The  $R^2$  in the regression is very low because the data is panel and it mostly low in panel data due to the presence of heterogeneity in data. As the sample is of non financial companies taken from six different industries that are dealing in their respective business and their nature of business varies as well (Austerio and Hall, 2011). Probability value (P) reveals the significance of the independent variable. If p value is below than 0.01, 0.05, 0.10 then the independent variable significantly affects the dependent variable. In the above table one esterik shows the independent variables are significant at 10%, two esterik shows the independent variables are significant at 5%, whereas three esoteric shows the independent variables are significant at 1%.

The coefficient of variable is usually interpreted since the change inside the response dependant on a 1-unit change inside the corresponding instructive variable keeping all variables presented constant. The results for the co-efficient show high T-statistic i.e., (1.885636) which is approaching 2 and p-value is also significant at 10% due to which the model rejects the null hypothesis. So, from results alternative hypothesis is accepted.

**Table: 4 Acceptance and Rejection of Hypothesis**

Hypothesis	Accept / Reject
<b>Ho: There is no association between stock return and EVA (Economic Value Added) in manufacturing sector of Pakistan.</b>	<b>Reject</b>
<b>H1: There is an association between stock return and EVA (Economic Value Added) in manufacturing sector of Pakistan.</b>	<b>Accept</b>

In this study the focus is on value addition in terms of EVA and its impact on stock return, and we find positive and significant results. EVA is highly associated with stock return as compare to accrual earning but when studied for the component of EVA information content analysis and incremental analysis suggest the higher association of earning with return and thus outperforming EVA in relation to stock return. The hypothesis that we stated that EVA have a significant on stock return is accepted and it gives contributions to the decision making of investors by relying not only on net income of the companies but also on addition of the economic value.

Firms using EVA as performance measure and considering as a contribution to firms and then pay the employees on these bases had suffered losses thus revealing the insignificance of it usage as a performance measure. Thus, EVA is found to be the more powerful in explaining the stock return as compared to the other traditional indicators of performance like NI (net income), RI (residual income) and OCF (operation cash flow).

## **FINDINGS AND RESULTS**

EVA constitutes nowadays one of the most important and widely spread management techniques. EVA assumes that the Economic Value Added (defined as the change in the Net Operating Profit after Taxes minus the change in the Cost of the Capital used to generate it), is the best shareholder wealth measure, and thus, must be the key variable used by managers in the decision making process. The way to achieve this goal is usually to link part of managerial compensation to firm' EVA.

The previous results shows the market index achieved negative revenue greater than the negative yield made by the stocks portfolios with high EVA .This may indicate a benefit to increase the yield for the equity portfolio, the EVA return is significantly lower than the market return. It can be explained by these results, the systemic risk for shares with high EVA and market risk was lowered therefore, changes in the prices of these stocks and their returns are less than changes in the market index both in the case of a rise or a decline so the return (positive or negative) for the investigator of the shares with high EVA is always less than the market return. In general, the previous results did not support the first hypothesis of the study, which aimed to test the theory allegations which referred to the use of the EVA to design the investment policies conducive to extraordinary returns compared to market return.

This will ultimately lead to contribution in stock returns. But in this study, it is tried to find out how much EVA is showing its worth in contribution to stock returns. Mostly investors are keen in the stock return an upward trend in stock return attract investors toward investment in stock that will further raise the demand in the stock market and will lead to increasing stock prices and performance of the stock market.

In this study the focus is on value addition in terms of EVA and its impact on stock return, and we find positive and significant results. EVA is highly associated with stock return as compare to accrual earning but when studied for the component of EVA information content analysis and incremental analysis suggest the higher association of earning with return and thus outperforming EVA in relation to stock return. The hypothesis that we stated that EVA have a significant on stock return is accepted and it gives contributions to the decision making of investors by relying not only on net income of the companies but also on addition of the economic value. Firms using EVA as performance measure and considering as a contribution to firms and then pay the employees on these bases had suffered losses thus revealing the insignificance of it usage as a performance measure. Thus, EVA is found to be the more powerful in explaining the stock return as compared to the other traditional indicators of performance like NI (net income), RI (residual income) and OCF (operation cash flow).

## **CONCLUSION**

Performance appraisal is one of the most important issues considered by stockholders, creditors, governments and managers given to development of capital markets. Investors always intend to be aware of success level of managers in using their capital. They want to know how much value has been created from the conducted investment. Value creation and enhancement of stockholders' wealth in long-term are the most important purposes of companies. Role of performance appraisal criterions in reflecting performance of companies through their existing information content has become more obvious too. It should be referred that value maximization of the stock market of companies is among the primary and essential purposes of any company. EVA is now recognized as an important tool of performance measurement and management all over the world, particularly in advance economies by adopting it as corporate strategy. Still there are mixed evidences about the superiority of EVA over traditional performance measurement tools. Country specific evidences are also not clear when compared with other residual income metrics. In this review paper, an attempt has been made to review the literature on EVA. Results indicate that the value of the stock is affected by variable economic value added (EVA) and it is significant at a level less than 10%.

## RECOMMENDATIONS

As evident from the literature, EVA has been the topic of interest for researchers particularly in USA and few other countries since 1994. Majority of the studies relate to EVA & stock returns and its comparison with traditional measure of corporate performance. But there are many other important areas which need the attention of research as presented in the following section.

- Accounting Adjustments and EVA
- Sector Specific studies
- EVA Applications in other Industries

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