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EQUITY PRICE DETERMINANTS IN KARACHI STOCK EXCHANGE: COMPANY SPECIFIC VS. COUNTRY SPECIFIC FACTOR ANALYSIS FROM PAKISTAN *

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ABSTRACT

Purpose-The main purpose of present study is to investigate the equity price determinants through with the framework of both industry specific and country specific elements, by considering the major firms listed in the Karachi Stock Market at Pakistan from the time period to 2004-2008. **Research Methodology**-To ensure the deep understanding, in this study secondary data technique with the various statistical and econometric methods were used to test the hypothesis in order to satisfy the core objectives. **Findings/Outcomes**-Contemporary analysis explains that Equity prices of the shares have been determined by number of explanatory variables. Regression result analysis suggests that there is a significant positive relationship between the dividends, earnings per share while there is negative relationship between the stock price, Gross Domestic Product and Inflation in the economy. GDP has negative but significant association while inflation has negative and insignificant relationship with the stock price. **Research limitations**-This study has focused on very limited number of firm specific and industry specific factors. At second time period of the study is not much long. **Implication of the study**-Results of the present study is quite beneficial for the management and policy makers while determining the equity prices in the market economy. Findings are also quite sigfncaint for the local and international investors while they are going to make some capital investment decision in financial markets.

Keywords: GDP; Firm specific; Industry specific; Financial markets.

INTRODUCTION

Financial markets are to be considered as an integral part and significant role player in the economy of the country. Financial system of any state depends heavily upon the stock markets. In order to circulate the savings of the general public, stock markets play a vital role not only in this regard but also provide a central location to raise funds from the general public for their source of financing to capital assets as well. For the purpose of investment

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decision by individuals and other interested groups of the country, stock market is like an end connotes to achieve such objective. Stock markets channel the savings of general public and insist them to invest in their interested business operations. Likewise, in the case of prices of products and services are being set by the forces of demand and supply, similar conditions are present in the financial markets where the stocks and shares are traded. Among the several forces which determine the prices of stocks of companies, political, economical, social factors are very much important to consider in this regard (Sunde & Sanderson, 2009). In the previous research findings the core objective was to identify the micro and macro economic factors which have significant impact on the prices of the stock.

At the same point in time, some have put enormous focus on the factors which are business specific and have their ultimate effect on the share price. As an end result the focal point is to consider both the economy specific like demand and supply and business specific like earnings per share capacity, dividend payout capacity, and size of the firm so forth. These factors are major determinants of financial performance of the business with some conclusion on how company is doing its operational activities in the relevant industry. Similarly current and as well as the future perspective political condition of the state is another indicator of stock price of the business firm. Country and region specific factors are closely associated with the investors approach. Macro economic factors like gross domestic product GDP, foreign direct investment FDI or investment in both physical and financial assets by the foreign investors in the domestic country, interest and inflation rate in the economy and taxation system are some of the major predictors of share price (Oseni, 2009). At the same point in time, trend of merger and acquisition and the perception in the mind sets of general public about such transactions can affect the share price both positively and negatively.

Demand and supply forces are the definitive key players in the overall scenario of contemporary and potential future perspective of volatility in the share price of the business. In the present analysis researchers have tried to analyze the effect of both business specific and country specific factors on the share price of the various companies which are listed in the Karachi stock exchange. The time duration of the study is from the year 2004 to 2008. The reason behind this short term analysis is to examine the trend of such country and business specific factors for the motive to know the real affect on the stock prices since selected time duration was very much crucial to deal with because of high level of uncertainty was actually associated with it.

REVIEW OF THE LITERATURE

Managers of the business organizations have to take the decision by considering the approach of long term growth and retention of high market share over the period of time. Either from the individual or the collective approach of the investors, end objective is to enhance the current inflow of the revenue with some future return as well. But in real world economy, achievement of such objective is too much crucial. Business operational performance is very much important element for such objective to be achieved. What are the instruments through which top level management can increase the market value of the firm?

Earlier researchers have used various factors with an objective to find out any significant association between the share prices and set of determinants. For instance in the study of (Shieh, Lin, & Ho, 2012) they have analyzed the effect of large changes in the stock prices from the 1586 business firms whose shares are traded In these three stock markets (New York, Amex and NASDQ). Explanatory variables have a dimension of time covariates, while the dependent variable is the hazard rate. Their outcomes revealed the fact that In New York stock exchange trend was because of momentum effect while liquidity effect stands for the major decline in the stock prices of the shares.

In the study of Sunde and Sanderson (2009) they have shared their key findings from the Zimbabwe stock market (ZSM). Key findings were based on both of the primary and secondary techniques for the data collection for the firms which were listed in ZSM. Their key findings demonstrated both the business specific factors like corporate earnings, management strength, information about the merger and acquisition circulating in the market and country specific factors political and economical like interest rate and inflation rate were also explored. Outcomes of the study stated that economic, political and social are the dominant factors. Meanwhile it is also revealed that political and economic condition of the country based on the stable working of the stock market.

No doubt the growth of the economy depends heavily upon the reasonable working of financial markets. For this instance the study of (Dritsaki & Dritsaki-Bargiota, 2005) tested the association in between the macroeconomic factors, functioning of the stock market and economic growth factors. Applying the test of co-integration, it is under discussion that there is one co-integration vector in between the functioning of stock market growth in banking sector and economic development.

In the study of Chen, Roll, and Ross, (1986) they have stated the fact that no previous theory is present in order to defend the direct association in between the stock price and the macroeconomic factors of the economy. Meanwhile, stock prices are considered as responding to the other market forces as well. Based on the their findings they have discovered a set of economic state factors as methodical influences return of stock markets and has examined their influence on asset pricing as well.

Similar findings were presented by Rahman, Sidek, and Tafri (2009) in their study of analyzing the volatility in the stock price of the Malaysian stock market. VAR model has been considered in this regard with the key explanatory variables like interest rate, money supply in the economy, reserves and industrial production index in order to analyze their combine effect on the stock prices in both short and long run. Their outcomes have revealed the fact that there exists a high co-integration in between the stock prices of the shares and money supply, interest rate, industrial production index and reserves.

The study of Somoye, Akintoye, and Oseni (2009) argued that the factors like market indexes have some effect on the price of the stock. Major consideration for getting the desired outcomes was through earnings per share EPS, GDP, and lending interest rate, rate of inflation and foreign exchange rate on stock prices of the shares. The test of finding out the level of correlation between the set of independent variables explained that there is high degree of correlation between the gross domestic product and oil prices, inflation and interest rate, foreign exchange rates and GDP, inflation rates and the value of earnings per share concurrently. Regression analysis has demonstrated that there stands high degree of variation in stock prices because of selected independent variables.

Chen, Da, and Zhao (2013) have explained that stock price of the firms are equal to the expected future cash flows and deflated with the expected discount rates. They key question which is under concern is to know which factor is more important for the stock price volatility. They have found that in the value of stock return significant component of cash flows are associated with it. Their findings can be generalized over both the firm and aggregate level also.

In his study of “Determinants of share price movement in emerging equity markets” (Grossman, 2000) has explained the fact that how the price of the shares take place in the emerging markets. Through with the reference of (Espana, 1995) he stated that in the today’s market economy investors in the emerging markets specifically the foreign investors corresponding the 19th century counterparts by using the similar type of historical and proxy data technique.

In their study Brennan & Xia (2001) have build up a “dynamic general equilibrium model” for the equity stock prices which acquiesces a stock price unpredictability and volatility with the equity premium which are too close the historical values. At the same point in time they also have proposed the fact that Dividends are unspecified to go behind a stochastic procedure with an unobservable growth rate by the agent. his unobserved behavior of the dividend growth rate has introduce an new way of learning and putting focus on the stock valuation process which as an end result increase the volatility of the equity stock price and have resolved the obvious inconsistency and discrepancy in between the high volatility and low volatility of the stock prices and dividend consumption respectively

Ødegaard (2007) has done their work by focusing the price difference for the dual class equity prices for the various firms which were listed at the Oslo Stock exchange. Their analysis was based on focusing the concepts of corporate control, restriction of the foreign stocks ownership and specifically for the liquidity position for the stock price dissimilarity. He further stated the fact that The Norwegian market has the strange and outlandish characteristic that in element of the sample age non-voting shares were dealing at a “premium to voting shares”. The result of the study can be rationalized by through with the help of putting a restriction on the international ownership. Further, in the afterward part of the period, with no authoritarian limitations on distant ownership, the voting premium is constructive and positive, related to corporate governance domination and liquidity.

RESEARCH METHODOLOGY

In order to find out the significant impact of various company specific vs. country’s specific variables have been selected. The populations of all the companies which are listed in KSE-30 index have been addressed. The sample size of our study is consisted of 29 companies from the 30 index. The core reason behind selecting this sample was that these firms have a significant impact in the overall industry and related sector. Key variables like dividend, earnings per share, gross domestic product and inflation rate in the economy have been selected. The key objective behind the study is to find the significant factors among the several in terms of company specific and country specific which have a major influence on the firm’s share price. For this purpose following hypothesis has been developed.

The overall relationship has been established through with the following regression equation.

$$= 1 + 2 \quad 2 + 3 \quad 3 + \qquad +$$

or

$$= 1 + 2 \qquad + 3 \qquad + 3 \qquad + 3 \qquad +$$

Where:

- MP = Market price of the shares of firm *i* with time *t*
- EPS = Earnings per share of firm *i* with time *t*
- GDP = Gross domestic product of country *i* with time *t*
- INF = Inflation rate in the country i with time *t*

Hypothesis No. 01

H_0=there is no relationship between the market price of the firm and dividend payment over a period of time

H_1= there is a significant positive relationship between the market price of the shares and dividend payment of the business over a period of time.

Hypothesis No. 02

H_0= there is no relationship between the market price of the shares and earnings per share ratio of the firm over a period of time

H_1= there is a significant positive relationship between the market price of the shares and earnings per share ratio of the firm over a period of time.

Hypothesis No. 03

H_0= there is no relationship between the market price of the shares and GDP over a period of time

H_1= there is a significant relationship between the market price of the shares and GDP over a period of time

Hypothesis No. 04

H_0= there is no relationship between the market price of the shares and inflation rate in the economy over a period of time

H_1= there is a significant relationship between the market price of the shares and inflation rate in the economy over a period of time

RESULTS AND DISCUSSION

Table below presents the key outcomes for the descriptive statistics of various companies specific with country specific factors which have an ultimate impact on the stock price of the various business firms. The outcomes of the current analysis from the perspective of descriptive statistics are as under:

TABLE 1

Descriptive Statistics

Variables	N	Mean	Std. Dev.	Min	Max
MP	117	181.89	148.9639	23.99	796.96
Dividend	117	85.39	93.3612	0	525
EPS	117	21.28	25.60964	-19.02	153.98
GDP	120	4.78	1.683896	2.4	6.8
Inflation	120	9.45	2.031475	7.8	12.8

Table 1 provides the descriptive outcomes for the key variables market price of shares, dividend, earning per share, gross domestic product and rate of inflation in the economy over a period of time. Market price per share has demonstrated the value of standard deviation of 148.9639 which shows higher deviation where as Gross Domestic Product has shown the minimum level of deviation with a value of 2.031475.

Before the selection of the major explanatory variables for the explained variable, it is very much significant to check if there is high, low, moderate level of correlation exists between the variables or not. The existence of high degree of correlation (problem of multicolinearity) in between the set of variables indicates that change in one variable cause a change in another variable of set of variables. For this reason Pearson correlation test has been done. Table below presents the outcomes of correlation between all the variables of the study.

TABLE 2
Correlation Matrix

	MP	Dividend	EPS	GDP	Inflation
MP	1				
Dividend	0.6978	1			
	0.0000				
EPS	0.6981	0.5806	1		
	0.0000	0.0000			
GDP	-0.1154	-0.0637	-0.0892	1	
	0.2155	0.4951	0.3391		
Inflation	0.0418	0.0078	0.1382	-0.7469	1
	0.6542	0.9332	0.1372	0.0000	

It is quite obvious from the Table 2 that there is high degree of correlation in between the Market Price and Dividend, Market price and Earnings per Share, Dividend and Earnings per share, and highly negative correlation in between the Gross Domestic Product and Inflation in the Economy over a period of time. Whether the stated level of correlation between all these variables is problematic in the study analysis or not, the value of variance Inflation Factor VIF has been calculated. If the value is greater than 05, then the stated level of correlation is a problematic issue and researcher must have to remove the problem of multicolinearity. Table below represents the mean value and individual value of VIF for each of variables.

TABLE 3
Variance Inflation Factor (VIF)

Variable	VIF	1/VIF
Inflation	2.3	0.435006
GDP	2.26	0.443435
EPS	1.56	0.640076
Dividend	1.54	0.647906
Mean VIF	1.91	

*Mean value of VIF is <05

From the Table 3 findings it is clear that mean value and individual value of VIF is less than 05, so there is no problem of multicolinearity in the selected set of variables and we will include all the variables for the further regression analysis. The outcomes of the pooled regression analysis are as under:

TABLE 4
Regression Results

MP	Coef.	Std. Err.	T	P>t	[95% Conf.	Interval]
Dividend	0.676504	0.11449	5.91	0.000***	0.449656	0.903351
EPS	2.65979	0.419925	6.33	0.000***	1.827762	3.491818
GDP	-12.9934	7.699771	-1.69	0.094*	-28.2495	2.262722
Inflation	-9.78077	6.430107	-1.52	0.131	-22.5212	2.959669
_cons	221.7718	92.23359	2.4	0.018	39.02274	404.5208

****, **,* shows level of significance at 01%, 05% & 10 % respectively

Table 4 explains the regression outcomes of the study. Here we can see that value of coeffiecnts of Dividend, Earnings per share has a significant outcome at a value of 01 % level of significant, which explains that there is positive impact of Earning Per share and Dividend Policy of the firm over a period of time. Better the Dividend and Earnings per share of the firm will lead to the positive impact on the market price of the share. The value of coeffiecnts for the Dividend and Earnings per share explains that one unit change in the Dividend and EPS, cause a positive change of 0.676504 and 2.65979 in the in the Market price of shares respectively. Meanwhile the coefficient value for Gross Domestic Product is-12.9934, which is significant at 10 % level of significant. The outcome of GDP in terms of Beta coefficient explains that there is negative impact of Gross Domestic Product in the stock price of the shares over a period of time. The value of coefficient for rate of inflation is -9.78077 which indicates that there is negative but insignificant association in between the Market Price of the Share and rate of Inflation in the economy as the P-value is 0.131. Except rate of inflation all the major explanatory variables have shown significant outcomes in determining the market price of the share. The value for the constant is 221.7718 which shown the value of dependent variable stock price when the value of x, the explanatory variables is zero.

Table 5 presents the value of R-squared and adjusted R-square. The value of coefficient of determination or R2 is .6264 which shown that how much variation in the market price of the share has been explained by all the explanatory variables in the study. At the same time the adjusted value of R2 or more precisely called the adjusted R2. It is refers to the adjusted value of R2 according to the sample size of the study. in the present study analysis the value of adjusted R2 is .6130.

TABLE 5

Summary Results

No. of Observations	R- Squared	Adj. R-square	Prob> F
117	.6264	.6130	0.0000

CONCLUSION AND IMPLICATION OF THE STUDY

From the above analysis it is revealed that determining the stock prices in the market economy is not an autonomous decision. It is defined by number of consideration. Results of the study indicate that stock price of the share influence by dividend, earnings per share and gross domestic product of the country over a period of time. So it can be concluded that judging the profitability of the firm has a great prejudiced from various factors.

In conclusion these findings have an interesting policy implication which can additionally add to the ongoing debate on the issue of determinants of equity prices in the stock market. The empirical findings of the study suggest that dividend, earnings per share and gross domestic product as significant factors affecting the stock price. However at the same point in time, the results of the study have indicated that some of the factors have a week or insignificant impact like the rate of inflation in the economy. This might be due the reason that there is great level of uncertainty and volatility in the stock market environment. These findings might be meaningful for the management authorities to decide on the extent to which firm specific and industry specific factors must be considered while determining the stock price volatility. More precisely the results emerge to indicate that dividend and earnings per share have greater influence on the market price of equity prices.

As for the limitations, this study measures only a very limited number of firm and industry specific variables. As the more factors will be taken into account outcomes will be more beneficial and significant. At second extending the time period of the study can be another future gap to be filled with the investigation of the stated situation in improved context.

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FIGURE 1

Matrix Graph of Market Price of Shares With Respect To Dividend Payment, EPS, GDP and Inflation