

Explanatory Power of Accounting Variables in Determining Share Price: The Case of Cement Industry of Pakistan

Sadaf Mustafa

Assistant Professor, Department of Commerce, University of Karachi

Farooq Ahmed

Lecturer, Department of Commerce, Federal Urdu University of Arts, Science & Technology, Karachi

Faisal Arshad

MPhil Scholar, Department of Commerce, University of Karachi, Karachi

Faizan Ahmed

MPhil Scholar, Department of Commerce, University of Karachi

Abstract

This paper studies the impact of various variables on the share price of the cement sector companies in Pakistan. The financial performance of 6 out of 18 firms has been examined over a ten year period, taking changes in equity, net income, net sales, dividends and financial leverage as dependent variables and share price of the company as the independent variable. Relationship of each variable with the share price has been analyzed through ordinary least square method using eviews statistical application. After conducting the analysis on the different variables it can be concluded that dividends, net profit and net sales of Attock Cement, Financial leverage of Cherat Cement and net profit and book value of Kohat Cement are significantly effecting the share price of the stocks, whereas other variables have negligible impact on the firm's share price.

Keywords: Share Price, Accounting Variables, Pakistan Cement Industry

Introduction

Share price is the price at which shares are traded in the market and is determined through the demand and supply of the shares in the market (Weygandt, Kimmel & Kieso, 2014). It is assumed that market reacts quickly and instantly to earnings and profit information of a firm (Libby & Short, 2011). The investors first look at the financial performance of a respective company such as earnings to determine the financial potential of the company in the future (Alam, Miah & Karim, 2016).

A firm's earnings are a measure of the variation in the value of the company to its shareholders. Earnings are calculated by deducting cost of sales, expenses and taxes from the revenue over a period of time. It has also been found through various studies (Menike & Prabath, 2014; Glezakos, Mylonakis & Kafouros, 2014) that net profit or net earnings are one of the most important variable that impacts the share price of a company. It has been evaluated that earnings or profit of current period is used to predict the earnings of the future period (Masum, 2014). Then these future period earnings are used to determine the expected dividends for the future period (Libby & Short, 2011). This all information then in turn establishes the share price of the company.

The other accounting variable is the dividends which are the payments made to the shareholders in return of their investments in the company (Libby & Short, 2011). Hence, the share demand of a company in the market depends on the company's dividend payout policy.

The companies that pay higher dividend are seen as good investment avenue for the investors (Laveren, Durinck & Ceuster, 1997). Hence, investors are more interested in buying their shares which increases the demand of the shares in the market, in return causing the price of the share to rise.

Background Of Cement Industry In Pakistan

Cement industry plays a very significant role in the economy of Pakistan. Looking at the history of cement industry of Pakistan it has grown immensely in the last 70 years. In 1947, Pakistan had only a couple of grey cement manufacturers. During 1948-58, the number of cement factories rose to six (Fayyaz, 2007). As of 2016 there are eighteen listed companies on Karachi Stock Exchange including the major players which are:

- Attock Cement
- Cherat Cement
- D G Khan Cement
- Fauji Cement
- Kohat Cement
- Lucky Cement
- Best way Cement

- Pioneer Cement etc.

On an average the cement industry is contributing Rs. 100 billion to GDP each year and for this reason it makes this industry an important pillar for the progress of the country's overall economic prosperity (Fayyaz, 2007). However after analyzing the past 69 years it can be said that despite of growth opportunities for this industry the companies in this sector are able to earn low margins due to low prices being charged for cement in the market.

The types of cement produced in Pakistan include the following:

- Ordinary Portland Cement
- Portland Blast Furnace Slag Cement
- Sulphate Resisting Cement
- White Cement

In year 2016 the total production capacity of this sector amounts to 45.62 (Mn. Tonnes) which has increased by almost 400% from the year 1990 which was only 8.89 (Mn. Tonnes) then. Exports have also increased by a margin of 500% from the year 2001 to year 2016. The market share held by the major players in the industry in the year 2015 approximately are presented in the table below:

Cement Manufacturer	Market Share	Production
Lucky	19.19%	6.79MT
Kohat	5.21%	1.85MT
MLCF	8.36%	2.96MT
Fauji	7.29%	2.6MT
DGK	10.86%	3.86MT
Bestway	13.72%	4.87MT

The future growth prospect for cement industry in Pakistan are that experts believe that the local demand for cement will dominate the market and the industry will see an increase in competition due to production capacities of firms being increased and for this reason the companies will need to get themselves engaged in marketing activities for their sustainability

Literature Review

Menike M. G. P. D. & U. S. Prabath (2014) in their research paper examined the impact of the accounting variables such as dividend per share (DPS), earnings per share (EPS) & book value per share (BVPS) on the share prices of companies listed in the developing stock exchange market. They carried out the research by using the Ohlson (1995) multivariate regression model and assumed non normal distribution of the stock prices. The researchers in this study argued that there is a positive relationship between the variables and the stock prices of the companies however comparing to a developed stock exchange market it can be seen that EPS has a significant lesser impact on the share price in the developing market whereas BVPS & EPS depicts a more significant impact. While comparing between the three variables in the developing market only it can be analyzed that share price is most sensitive to DPS for the companies in the market.

Darush Foroghi and Sara Muhammad Ibrahimi Jahromy in their paper studied the impact of profitability on the share price. This was a quantitative study which had 60 observations and the dependent variable was Stock price, the independent variable was profitability. After rigorous testing on spss and creating different hypothesis, they concluded that profitability had a positive impact on the share price which means that if the profitability of the company increased, then the share price of the company also increased. The paper estimated a model to explain share price, dividends and retained earnings relationship. A hypothesis was developed to test and examine retained earnings and dividends impact overtime. Results determined that both have an important effect on share price, however dividend effect more than retained earnings. An insight of earlier studies that were discussed in the paper were also highlighted for example DESAI (1965) estimated that the price, dividend and retained earning relationship and explained that coefficient of retained earnings was not of any importance. SARKAR (1971) used time series data to study the share price behavior and identified that retained earnings had an effect on share price.

The two schools of thought:

1. People who believe that dividend has got more impact in determining share price base their argument on the following hypothesis
 - shareholders prefer current to future uncertain return
 - dividend payment is an indicator of earning capacity in future
2. People who believe retained earnings has got more impact in determining share price base their argument on the following
 - retained earnings highlights growth opportunities
 - risk of bankruptcy is minimized

- the shareholders get a tax advantage as the increase in share value due to retention is not treated as income for tax purposes until realized.

Several research has been undertaken to gauge the impact dividend policies have on the share price. The study conducted by Gordon (1962) is very popular in this topic which presents the concept of dividend relevance theory. Gordon (1962) conducted research to study the relationship between dividend policy and share price. He established that there was a direct relationship between the two variables. As the future situation is uncertain, investors prefer current income in the form of dividends which is secure over capital gains. He also proposed that even if when the required rate of return and internal rate of return (IRR) are equal, there will be a positive relationship between the variables.

Another study conducted by Suleman et al., (2011) on the same variables also provided same result. Suleman et al (2011) studied performance of 5 major sectors of Pakistan for the 2005 -2009 period and found positive relation between share price volatility.

Explanation of Variables

In this research, we have taken five variables as independent which are book value, net profit, net sales, dividends and financial leverage and one variable (Stock price) as dependent. We have studied how the change in these variables impact stock prices of companies in Cement industry.

The following is the explanation of these variables.

Dependent variable: Stock price

Stock price is price of single share of company. It is the highest price that an investor is willing to pay for the stock of company. Stock price is market price at which stocks are bought and sold.

Independent Variables:

Book value:

Book value of equity shows a firm's net worth. It is calculated by taking out total business liabilities from the total assets. Book value is different from the market value. The market value depends upon what investors are willing to pay for the stocks of company. If company's performance is good, their shares price is greater than book value.

Net profit:

Net profit is also called profit after tax; it is the amount by which income from sales is larger than all expenditures. It is often referred to as bottom line earnings; measured as a difference between a firm's total expenses and its total income. In other words, it is the amount left after the accounting for every expense, gain, loss, and tax.

Net sales:

The sums of money which a business receives for doing its business are its net sales. It is the amount generated by company from its sales after deducting sales returns, allowances and any discounts allowed.

Dividends:

Dividends are sums that a company pays to shareholders from its profits. The sum and time in which a dividend will be declared or paid is the discretion of a company's board of directors. If company has preferred stocks, they receive the dividend first and at the fixed rate, the dividend payout ratio for Common stockholders is decided on how well a company is making profits and how much does it need to hold profit for expansion or other contingencies.

Financial leverage:

The extent of debt used to finance assets of a company represents its financial leverage. Firms that have debt exceeding their equity are considered heavily leveraged. A firm's financial leverage may rise due to significant fixed costs used to ensure certain levels of income streams.

Methodology & Hypothesis

Cement industry was chosen to detect and reflect changes in share prices due to changes in variables like book value, net sales, net profit, dividends paid and change in financial leverage. Ten years data was collected from annual reports of the following companies to analyze the data through eviews software.

1. Lucky Cement,
2. Fauji Cement,
3. D G Khan Cement,

4. Kohat Cement
5. Cherat Cement
6. Attock Cement

Hypothesis

HO: Book value do not effect Share prices

H1: Book value do effect Share prices

HO: Net profit do not effect Share prices

H1: Net profit do effect Share prices

HO: Net sales do not effect Share prices

H1: Net sales do effect Share prices

HO: Dividend do not effect Share prices

H1: Dividend do effect Share prices

HO: A change in leverage do not effect Share prices

H1: A change in leverage do effect Share prices

Sample and Source Of Data

Six local cement companies were chosen whose ten years data was collected and compiled from the annual reports available on their respective websites.

Statistical Tool

The Eviews software is used for this research purpose. It will enable us to get quick and accurate outcomes of the research. The statistical technique applied is the multiple regression model (ordinary least squared method) as there are more than two independent variables are used to predict the dependent variable. Also we have to see the impact of the independent variables on share price hence the regression model shows it easily and through this software and is very reliable to interpret the results. The regression equation is as follows:

$$SP_i = \alpha + \beta_1 x_{1i} NP + \beta_2 x_{2i} NS + \beta_3 x_{3i} BV + \beta_4 x_{4i} Div + \beta_5 x_{5i} FL + \epsilon_i$$

Where,

SP = Change in Share Price (dependent variable)

NP = change in net profit (independent variable)

NS = change in net sales (independent variable)

Div = change in dividends paid (independent variable)

FL = change in financial leverage (independent variable)

BV = Change in book value (independent variable)

ϵ = error

Empirical Findings

The statistical output for regression is presented in tabular format in Annexure I. The most critical values for our analysis relate to regression coefficient, T-Stats and R-Squared.

Regression coefficient shows the rate at which a given variable (in this instant share price) changes as a function due to changes in other variables (NP, NS, DIV, BV, FL). T-statistic shows the significance and relationship for reliability of the result. T-statistic shows the significance and relationship for reliability of the result. R-squared shows the significance of the model that means it explains the variation of the data. It tells us the degree on which independent variables are able to explain the variations on the dependent variable.

Based on the the statistical results, we present our analysis and findings for Coefficients, T-stats and |R-squared values for each company.

ATTOCK

Coefficients

- As 1 unit increased in net profit , the share price increased by 0.64
- As 1 unit increased in net sales, the share price decreased by 1.74
- As 1 unit increased in dividends, the share price increased by 0.3
- As 1 unit increased in the book value, the share price decreased by 1.4
- As 1 unit increased in the financial leverage, share price decreased by 0.06

T Stats

- T-statistic of NP is 2.78 which means that this model explains the relationship between Net Profit and Share Price. It shows slight significance as its on the higher side or +2

- T-statistic of NS is -2.4 which means that this model explains NS - Share price relationship which also shows slight significance as its on the higher side or +-2
- T-statistic of DIV is 3.39 which means that this model explains the relationship between DIV and Share Price is slightly significant as its on the higher side or +-2
- T-statistic of BV is -0.76 which means that this model explains the relationship between BV and Share Price is not significant as its not on the higher side or +-2
- T-statistic of FL is 1.04 which means that this model explains the relationship between FL and Share Price is not significant as its not on the higher side or +-2

R squared

The independent variables can explain the dependent variable variations at the level of 79.7%. This means that NP, NS, DIV, BV and FL explain 79.7% of the Share Price's variations.

CHERAT

Coefficients

- As 1 unit increased in net profit, the share price decreased by 0.05
- As 1 unit increased in net sales, share price increased by 2.90
- As 1 unit increased in the dividends, the share price decreased by 0.000125
- As 1 unit increased in the book value, the share price decreased by 0.2
- As 1 unit increased in financial leverage, share price decreased by 2.95

T Stats

- T-statistic of NP is -1.08 which means that this model explains the relationship between Net Profit Share Price is insignificant as it is not on the higher side or +-2
- T-statistic of NS is 0.77 which means that this model explains the relationship between Net Sales and Share price is insignificant as it is not on the higher side or +-2
- T-statistic of DIV is 1.53 which means that this model explains the relationship between DIV and Share Price is not significant as it is not on the higher side or +-2
- T-statistic of BV is -0.52 which means that this model explains the relationship between BV and Share Price is not significant as its not on the higher side or +-2
- T-statistic of FL is -2.24 which means that this model explains the relationship between Financial leverage and Share Price is strong as its on the higher side or +-2

R squared

The independent variables precisely show dependent variable variations at the 65.5% level. This means that NP, NS, DIV, BV and FL explain 65.5% of the Share Price's variations.

DG KHAN

Coefficients

- As 1 unit increased in net profit, share price increased by 0.43
- As 1 unit increased in net sales, the share price decreased by 0.65
- As 1 unit increased in the dividends, the share price decreased by 2.99E-05
- As 1 unit increased in book value, share price decreased by 2.18
- As 1 unit increased in the financial leverage, share price decreased by 1.58

T Stats

- T-statistic of NP is 0.87 which means that this model explains the relationship between NP and Share Price is not significant as its not on the higher side or +-2
- T-statistic of NS is -0.168 which means that this model explains the relationship between NS and Share price is not significant as its not on the higher side or +-2
- T-statistic of DIV is -0.56 which means that this model explains the relationship between DIV and Share Price is not significant as its not the higher side or +-2
- T-statistic of BV is -0.66 which means that this model explains the relationship between BV and Share Price is not significant as its not on the higher side or +-2
- T-statistic of FL is -0.86 which means that this model explains the relationship between FL and Share Price is not significant as its not on the higher side or +-2

R squared

The independent variables can explain the dependent variable variations at the level of 68.03%. This means that NP, NS, DIV, BV and FL explain 68.03% of the Share Price's variations.

LUCKY

Coefficients

- As 1 unit increased in net profit, the share price decreased by 0.36
- As 1 unit increased in net sales, the share price decreased by 0.088
- As 1 unit increased in dividends, the share price decreased by 4.38E-08
- As 1 unit increased in the book value, share price decreased by 0.03
- As 1 unit increase in financial leverage, share price increased by 1.82

T Stats

- T-statistic of NP is -0.39 which means that this model explains the relationship between NP and Share Price is not significant as its not on the higher side or +-2
- T-statistic of NS is -0.07 which means that this model explains the relationship between NS and Share price is not significant as its not on the higher side or +-2
- T-statistic of DIV is -0.001 which means that this model explains the relationship between DIV and Share Price is not significant as it's not the higher side or +-2
- T-statistic of BV is -0.05 which means that this model explains the relationship between BV and Share Price is not significant as its not on the higher side or +-2
- T-statistic of FL is 1.8 which means that this model explains the relationship between FL and Share Price is not significant as its not on the higher side or +-2

R squared

The independent variables can explain the dependent variable variations at the level of 63.5%. This means that NP, NS, DIV, BV and FL explain 63.5% of the Share Price's variations.

FAUJI

Coefficients

- As 1 unit increased in net profit, the share price increased by 0.48
- As 1 unit increased in net sales, the share price increased by 0.05
- As 1 unit increased in the dividends, share price decreased by 0.24
- As 1 unit increased in book value, the share price decreased by 0.53
- As 1 unit increased in the financial leverage, the share price decreased by 0.24

T Stats

- T-statistic of NP is 1.50 which means that this model explains the relationship between NP and Share Price is not significant as its not on the higher side or +-2
- T-statistic of NS is 0.12 which means that this model explains the relationship between NS and Share price is not significant as its not on the higher side or +-2
- T-statistic of DIV is -1.3 which means that this model explains the relationship between DIV and Share Price is not significant as it's not the higher side or +-2
- T-statistic of BV is -0.98 which means that this model explains the relationship between BV and Share Price is not significant as its not on the higher side or +-2
- T-statistic of FL is -1.4 which means that this model explains the relationship between FL and Share Price is not significant as its not on the higher side or +-2

R squared

The independent variables can explain the dependent variable variations at the level of 48.7%. This means that NP, NS, DIV, BV and FL explain 48.7% of the Share Price's variations.

KOHAT

Coefficients

- As 1 unit increased in net profit, the share price decreased by 0.25
- As 1 unit increased in net sales, share price increased by 0.33
- 1 unit increased in book value, share price increased by 9.78

- As 1 unit increased in financial leverage, share price increased by 0.39

T Stats

- T-statistic of NP is -3.132 which means that this model explains the relationship between NP and Share Price is significant as its on the higher side or +2
- T-statistic of NS is 0.355 which means that this model explains the relationship between NS and Share price is not significant as its not on the higher side or +2
- T-statistic of BV is 3.61 which means that this model explains the relationship between BV and Share Price is significant as its on the higher side or +2
- T-statistic of FL is 0.7334 which means that this model explains the relationship between FL and Share Price is not significant as its not on the higher side or +2

R squared

The independent variables can explain the dependent variable variations at the level of 84.25%. This means that NP, NS, DIV, BV and FL explain 84.25% of the Share Price's variations.

Conclusion

The cement industry is a major contributor to the economy of Pakistan, with annual production capacity of over 45 million tones and valuation of over Rs. 100 billion (Fayyaz, 2007). However, little research is directed on the financial performance of these companies and the impact of such financial performance on their share price. The present research analysed financial performance of six major players of Pakistani cement sector taking book value, net profit, net sales, dividends and financial leverage as independent variables and stock price as dependent variables. We studied how the change in these variables impact stock prices of companies.

After conducting the analysis on the different variables it can be concluded that dividends, net profit and net sales of Attock Cement, Financial leverage of Cherat Cement and net profit and book value of Kohat Cement are significantly effecting the share price of the stocks, whereas other variables did not have a significant impact on the share price of the companies in the cement sector of Pakistan.

The recent 10 years data has been taken from 6 listed companies of the cement industry; there are other cement companies which can be generalized by these results to some extent. Since the scale of operations of the companies analysed in this research may vary, the precision with which these findings can be generalized is yet to be seen in a bigger research canvas. Another limitation of this research is that it centers on the role of accounting variables alone to arrive at its conclusions. The performance of cement sector of Pakistan, however, is prone to several business conditions ranging from marketing and economic environment to management and decision making of the respective companies. In order to bring up a more clearer picture, further research may add up one of such variables and gauge their impact on market share price.

References

- Alam, S., Miah, R. & Karim, A. (2016) 'Analysis on Factors that Affect Stock Prices: A Study on Listed Cement Companies at Dhaka Stock Exchange' *Research Journal of Finance and Accounting* Volume 7 No.18. Retrieved from <http://www.iiste.org/Journals/index.php/RJFA/article/view/33297/34195> on April 04, 2017
- Chawla, Deepak & Srinivasan, G. (1987) 'Impact of Dividend and Retention on Share Price - An Econometric Study' *Decision*; Calcutta 14.3 (Jul 1, 1987): 137. Retrieved from <http://search.proquest.com/openview/d97958629d385c4f3fbec00c7677df38/1?pq-origsite=gscholar> on April 04, 2017
- Fayyaz, S. (2007) 'Cement Industry Pakistan: A Strategic Analysis' Retrieved from <https://www.scribd.com/doc/40547184/Final-Report-Cement-Industry-Pakistan> on April 04, 2017
- Glezakos M., Mylonakis J. & Kafouros C. (2012) 'The Impact of Accounting Information on Stock Prices: Evidence from Athens Stock Exchange' *International Journal of Economics and Finance* Vol. 4, No. 2; February 2012. Retrieved from <http://www.ccsenet.org/journal/index.php/ijef/article/viewFile/14233/9829> on April 04, 2017
- Hussain A, et al (2009), "Short run and Long run Dynamics of Macroeconomics Variables and Stock prices: Case Study of KSE (Karachi Stock Exchange)", *Kashmir Economic Review*, Vol. XVIII, Nos. 1 & 2, January-December, 2009, pp. 43 - 61
- Iqbal, Arsalan Arsalan and Raza, Hasan and Aslam, Muhammad Farrukh and Mubin, Muhammad, Impact of Leverages on Share Price: Evidence from Cement Sector of Pakistan (June 20, 2016). *Industrial Engineering Letters*, Vol. 6, No. 6, pp 44-48 (2016). Available at SSRN: <https://ssrn.com/abstract=2910682>
- Kalama, J.D., (2013) 'The Relationship Between Earnings and Share Prices of Firms Listed at Nairobi Stock Exchange', Retrieved from <http://chss.uonbi.ac.ke/sites/default/files/chss/kalama-PROJECT-report->

corrected-2.pdf on April 04 , 2017

- Libby, R., Libby, P. A., & Short, D. G. (2011). *Financial accounting*. New York: McGraw-Hill/Irwin.
- Laveren, E., Durinck, E., & Ceuster, M. D. (1997). *Can accounting variables explain any beta? The empirical association between various betas and nine accounting variables in Belgian listed firms*. Antwerp: UFSIA.
- Masum, A., (2014) ‘Dividend Policy and Its Impact on Stock Price – A Study on Commercial Banks Listed in Dhaka Stock Exchange’ *Global Disclosure of Economics and Business*, Volume 3, No 1 (2014). Available at SSRN: <https://ssrn.com/abstract=2724964>
- Mubin, M., Iqbal, A. and Hussain, A. (2014): Determinant of Return on Assets and Return on Equity and Its Industry Wise Effects: Evidence from KSE (Karachi Stock Exchange). *Research Journal of Finance and Accounting*, The International Institute for Science, Technology and Education, vol. 5, no. 5, pp. 148-158, USA.
- Mubin, M., Ahmed, M., Farrukh, M., Lal, I., & Hussain, A. (2014). “Determinants of dividend with industry-wise effect : Evidence from KSE 100 Index”. *Journal of Finance and Accounting*, 5(3), 62-69.
- Menike M. G. & U. S. Prabath (2014) ‘The Impact of Accounting Variables on Stock Price: Evidence from the Colombo Stock Exchange’ *International Journal of Business and Management*, Vol. 9, No. 5; 2014. Retrieved from <http://www.ccsenet.org/journal/index.php/ijbm/article/viewFile/34076/20371> on April 04 , 2017
- Ohlson, J. (1995). Earnings, book values and dividends in equity valuation. *Contemporary Accounting Research*, 11. <http://dx.doi.org/10.1111/j.1911-3846.1995.tb00461.x>
- Suleman, M., Asghar, M., Ali Shah, S., & Hamid, K. (2011). Impact of Dividend Policy on Stock Price Risk: Empirical Evidence from Equity Market of Pakistan.
- Weygandt, J. J., Kimmel, P. D., & Kieso, D. E. (2014). *Accounting principles*. Hoboken, N.J: John Wiley & Sons.

ANNEXURE I: STATISTICAL OUTPUT ATTOCK CEMENT

Dependent Variable	SP			
Method	Least Squares			
Sample	2007-2016			
Included Observations	10			
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.255577	0.212544	1.202467	0.2955
NP	0.647522	0.232689	2.782777	0.0497
NS	-1.746279	0.723557	-2.413462	0.0733
DIV	0.303204	0.89198	3.399208	0.0273
BV	-1.432567	1.87669	-0.762544	0.4882
FL	0.069071	0.066276	1.042166	0.3562
R-Squared	0.797177	Mean dependent var	0.15142	
Adjusted R-Squared	0.543647	S.D dependent var	0.349136	
S.E of regression	0.235855	Akaike info criterion	0.23251	
Sum squared resid	0.22251	Schwarz criterion	0.414061	
Log Likelihood	4.837448	Hannan-Quinn criter.	0.033349	
F-Statistic	3.144319	Durbin-Watson stat	1.97889	
Prob (F-Statistic)	0.144901			

CHERAT CEMENT

Dependent Variable	SP			
Method	Least Squares			
Sample	2007-2016			
Included Observations	10			
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.42103	0.389209	-1.081761	0.3402
NP	0.05186	0.066682	0.777731	0.4802
NS	2.902642	1.891117	1.534882	0.1996
DIV	-0.000125	0.000238	-0.527339	0.6259
BV	-0.206703	1.433959	-0.144148	0.8924
FL	-2.955018	1.317969	-2.242101	0.0884
R-Squared	0.655695	Mean dependent var	0.22742	
Adjusted R-Squared	0.225313	S.D dependent var	0.84486	
S.E of regression	0.743615	Akaike info criterion	2.529121	
Sum squared resid	2.21185	Schwarz criterion	2.710672	
Log Likelihood	-6.645607	Hannan-Quinn criter.	2.32996	
F-Statistic	1.52352	Durbin-Watson stat	1.139946	
Prob (F-Statistic)	0.352193			

DG KHAN CEMENT

Dependent Variable	SP			
Method	Least Squares			
Sample	2007-2016			
Included Observations	10			
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.464217	0.869911	0.533637	0.6879
NP	0.43335	0.497919	0.870322	0.5441
NS	-0.653474	3.886849	-0.168124	0.894
DIV	-2.99E-05	5.36E-05	-0.557989	0.676
BV	-2.18879	3.309816	-0.661303	0.628
FL	-0.1580665	1.827975	-0.864708	0.5461
R-Squared	0.680331	Mean dependent var		0.363129
Adjusted R-Squared	-0.918016	S.D dependent var		0.739944
S.E of regression	1.024767	Akaike info criterion		2.655184
Sum squared resid	1.050148	Schwarz criterion		2.608821
Log Likelihood	-3.293142	Hannan-Quinn criter.		2.082149
F-Statistic	0.425647	Durbin-Watson stat		3.179697
Prob (F-Statistic)	0.814072			

LUCKY CEMENT

Dependent Variable	SP			
Method	Least Squares			
Sample	2007-2016			
Included Observations	10			
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.672797	0.332707	2.022193	0.1132
NP	-0.365187	0.935656	-0.390131	0.7162
NS	-0.088449	1.170444	-0.075569	0.9434
DIV	-4.38E-09	3.67E-05	-0.001195	0.9991
BV	-0.036118	0.756099	-0.047769	0.9642
FL	1.824728	0.962655	1.895516	0.1309
R-Squared	0.635537	Mean dependent var		0.27378
Adjusted R-Squared	0.179959	S.D dependent var		0.426759
S.E of regression	0.386457	Akaike info criterion		1.220115
Sum squared resid	0.597395	Schwarz criterion		1.401666
Log Likelihood	-0.1005573	Hannan-Quinn criter.		1.020953
F-Statistic	1.395011	Durbin-Watson stat		2.001471
Prob (F-Statistic)	0.384612			

FAUJI CEMENT

Dependent Variable	SP			
Method	Least Squares			
Sample	2007-2016			
Included Observations	10			
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.316148	0.318785	0.991728	0.3775
NP	0.487303	0.324219	1.503007	0.2073
NS	0.05671	0.437276	0.12969	0.9031
DIV	-0.240235	0.183573	-1.30866	0.2608
BV	-0.538167	0.545842	-0.985939	0.38
FL	-0.235688	0.16292	-1.446647	0.2215
R-Squared	0.487911	Mean dependent var		0.1515
Adjusted R-Squared	-0.152201	S.D dependent var		0.555276
S.E of regression	0.596037	Akaike info criterion		2.086682
Sum squared resid	1.421042	Schwarz criterion		2.268233
Log Likelihood	-4.433411	Hannan-Quinn criter.		1.887521
F-Statistic	0.762227	Durbin-Watson stat		1.887521
Prob (F-Statistic)	0.620835			2.425944

KOHAT CEMENT

Dependent Variable	SP			
Method	Least Squares			
Sample	2007-2016			
Included Observations	10			
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-1.305853	0.888498	-1.46973	0.238
NP	-0.259668	0.082904	-3.132169	0.052
NS	0.339546	0.95461	0.35569	0.7456
BV	9.788586	2.711677	3.609791	0.0365
FL	0.391714	0.534071	0.73345	0.5164
R-Squared	0.842541	Mean dependent var		0.742763
Adjusted R-Squared	0.632595	S.D dependent var		2.051268
S.E of regression	1.243354	Akaike info criterion		3.542673
Sum squared resid	4.637788	Schwarz criterion		3.592324
Log Likelihood	-9.170692	Hannan-Quinn criter.		3.207797
F-Statistic	4.013137	Durbin-Watson stat		2.628514
Prob (F-Statistic)	0.141447			

ANNEXURE II: DATA FROM FINANCIAL STATEMENTS

Attock Cement

Books close on 30th June

Year	Net Profit (million)	Net Sales (million)	Dividends Paid (million)	Book Value (equity) (million)	Financial Leverage (LTD/(LTD+Equity)) (ratio)	Share Price (closing Price on June 30th)	Net Profit (growth)	Net Sales (growth)	Dividends Paid (growth)	Book Value (growth)	Financial Leverage (growth)	Change in Share Price
							NP	NS	Div	BV	FL	SP
2006	909	3,473	90	2,953	0.2843	91						
2007	796	4,560	361	3,396	0.2885	122.45	-0.1243	0.3130	3.0111	0.1500	0.0148	0.3456
2008	435	5,001	324	3,532	0.2778	77.13	-0.4535	0.0967	-0.1025	0.0400	-0.0371	-0.3701
2009	1,493	8,510	234	4,778	0.1815	70.22	2.4322	0.7017	-0.2778	0.3528	-0.3467	-0.0896
2010	1,017	7,668	386	5,395	0.0998	65.5	-0.3188	-0.0989	0.6496	0.1291	-0.4501	-0.0672
2011	684	8,554	281	5,798	0.0919	48.53	-0.3274	0.1155	-0.2720	0.0747	-0.0792	-0.2591
2012	1,437	10,638	606	6,613	0.1254	81.44	1.1009	0.2436	1.1566	0.1406	0.3645	0.6781
2013	2,138	11,508	817	7,849	0.1323	131.99	0.4878	0.0818	0.3482	0.1869	0.0550	0.6207
2014	2,014	12,547	1,339	8,446	0.1291	157.7	-0.0580	0.0903	0.6389	0.0761	-0.0242	0.1948
2015	2,206	13,086	1,659	8,935	0.1098	190.6	0.0953	0.0430	0.2390	0.0579	-0.1495	0.2086
2016	2,890	13,918	1,202	10,447	0.5412	238.71	0.3101	0.0636	-0.2755	0.1692	3.9290	0.2524

Cherat Cement Limited

Books Close on 30th June

Year	Net Profit (rupees '000)	Net Sales (rupees '000)	Dividends Paid (rupees '000)	Book Value (equity) (rupees '000)	Financial Leverage (LTD/(LTD+Equity)) (ratio)	Share Price (closing Price on June 30th)	Net Profit (growth)	Net Sales (growth)	Dividends Paid (growth)	Book Value (growth)	Financial Leverage (growth)	Change in Share Price
							NP	NS	Div	BV	FL	SP
2005	512,300	2,400,530	210,630	1,742,471	0.37	61.5						
2006	537,785	2,434,513	199,056	2,112,926	0.32	65	0.0497	0.0142	-0.0549	0.2126	-0.1351	0.0569
2007	184,158	2,619,960	82,659	2,236,592	0.25	56.5	-0.6576	0.0762	-0.5847	0.0585	-0.2188	-0.1308
2008	10,354	3,013,752	95,064	2,158,106	0.22	27.36	-0.9438	0.1503	0.1501	-0.0351	-0.1200	-0.5158
2009	159,287	4,567,409	169	2,268,404	0.38	13.5	14.3841	0.5155	-0.9982	0.0511	0.7273	-0.5066
2010	-13,755	3,469,111	157	2,245,965	0.31	9.22	-1.0864	-0.2405	-0.0710	-0.0099	-0.1842	-0.3170
2011	68,651	4,244,009	9	2,331,764	0.35	9	-5.9910	0.2234	-0.9427	0.0382	0.1290	-0.0239
2012	436,826	5,457,207	70	2,748,020	0.25	29.6	5.3630	0.2859	6.7778	0.1785	-0.2857	2.2889
2013	1,224,214	6,294,376	277,102	3,708,534	0.13	58.19	1.8025	0.1534	3957.6000	0.3495	-0.4800	0.9659
2014	1,316,168	6,451,330	233,516	4,864,268	0.12	65.46	0.0751	0.0249	-0.1573	0.3116	-0.0769	0.1249
2015	1,288,164	6,565,416	206,643	8,026,041	0.07	87.03	-0.0213	0.0177	-0.1151	0.6500	-0.4167	0.3295

DG Khan Cement

Books Close on 30th June

Year	Total Equity (Rs)	Net Profit (Rs)	Net Sales (Rs)	Dividends (Rs)	Financial Leverage (ratio)	Share Price as at 30th June	Total Equity Growth rate	Net Profit Growth rate	Net Sales Growth Rate	Dividends Growth Rate	Financial Leverage Growth rate	Share price Growth Rate
							BV	NP	NS	Div	FL	SP
2006	19,268,200	3,448,533	7,955,665	0	0.28	90.00	0.7606	-0.5011	-0.1931		-0.2616	0.2944
2007	33,923,185	1,720,471	6,419,625	0	0.21	116.50	-0.1133	-1.1458	0.9387		0.0728	-0.4237
2008	30,080,257	-250,930	12,445,996	379,093,000	0.22	67.14	-0.3046	-4.0961	0.4493	-0.9986	-0.1946	-0.5584
2009	20,918,442	776,900	18,038,209	533,000	0.18	29.65	0.2677	-0.5387	-0.0977	-0.9531	-0.0674	-0.2034
2010	26,519,220	358,403	16,275,354	25,000	0.17	23.62	0.1394	0.6774	0.1414	-0.9600	0.1145	-0.0267
2011	30,217,285	601,192	18,577,198	1,000	0.19	22.99	0.0898	5.7407	0.2354	67177.6770	-0.0757	0.7129
2012	32,930,632	4,052,466	22,949,853	67,178,677	0.17	39.38	0.4563	0.7510	0.0857	18.5651	-0.5146	1.1252
2013	47,956,798	7,095,858	24,915,924	1,314,357,354	0.08	83.69	0.2827	0.1065	0.0653	0.1667	-0.6024	0.0510
2014	61,516,535	7,851,397	26,542,509	1,533,416,913	0.03	87.96	0.0127	0.2160	-0.0165	0.4286	-0.3636	1.4413
2015	62,296,071	9,547,177	26,104,611	2,190,595,590	0.02	214.74						

Fauji Cement

Books close on June 30

Year	Net Profit (million)	Net Sales (million)	Dividends Paid (million)	Book Value (equity) (million)	Financial Leverage (LTD/(LTD+Equity)) (ratio)	Share Price (closing Price on June 30th) (Rs)	Net Profit (growth)	Net Sales (growth)	Dividends Paid (growth)	Book Value (growth)	Financial Leverage (growth)	Change in Share Price
							NP	NS	Div	BV	FL	SP
2006	1,204	5,683	274	3,283	0.334212127	29.1	-0.4635	-0.1589	-0.3358	0.1377	-0.4102	-0.2062
2007	646	4,780	182	3,735	0.197119518	23.1	-0.3591	-0.2774	-0.9341	1.4857	-0.6368	-0.2857
2008	414	3,454	12	9,284	0.0716	16.5	1.4348	0.5388	-0.3333	0.0438	5.7743	-0.4715
2009	1,008	5,315	8	9,691	0.485041713	8.72	-0.7520	-0.2835	1.1250	-0.0083	0.1769	-0.0940
2010	250	3,808	17	9,611	0.570841706	7.9	0.7040	0.2455	1.0000	0.1460	-0.0645	-0.3228
2011	426	4,743	34	11,014	0.534035622	5.35	0.2981	1.4295	0.9706	0.2625	-0.7438	0.3869
2012	553	11,523	67	13,905	0.136817928	7.42	2.7920	0.3858	1.6269	0.1461	1.8110	1.3787
2013	2,097	15,968	176	15,936	0.38459162	17.65	7.8898	0.0979	15.2784	-0.0093	-0.0486	0.4720
2014	2,626	17,532	2,865	15,788	0.36591831	25.98	-0.7792	0.0633	-0.1110	0.1033	-0.1124	0.4954
2015	4,116	18,642	2,547	17,419	0.32479262	38.85	0.3039	0.0752	0.8249	0.0579	-0.2467	0.1622
2016	5,367	20,044	4,648	18,428	0.244661229	45.15						

Lucky Cement

Books close on June 30

Year	Net Profit (000)	Net Sales (000)	Dividends Paid (000)	Book Value (equity) (000)	Financial Leverage (LTD/(LTD+Equity)) (ratio)	Share Price (closing Price on June 30th) (Rs)	Net Profit (growth)	Net Sales (growth)	Dividends Paid (growth)	Book Value (growth)	Financial Leverage (growth)	Change in Share Price
							NP	NS	Div	BV	FL	SP
2006	1,935,950	8,054,101	88	7,069,633	0.6254	100.42	0.3158	0.5547	2962.0682	0.3231	-0.1728	0.2253
2007	2,547,292	12,521,861	260,750	9,353,550	0.5173	123.04	0.0512	0.3543	0.2509	0.9945	-0.4251	-0.2041
2008	2,677,670	16,957,879	326,162	18,655,423	0.2974	97.93	0.7166	0.5527	-0.9998	0.2464	-0.3067	-0.4023
2009	4,596,549	26,330,404	73	23,251,972	0.2062	58.53	-0.3174	-0.0692	17547.5616	0.0793	-0.3957	0.0617
2010	3,137,457	24,508,793	1,281,045	25,095,929	0.1246	62.14	0.2655	0.0616	0.0031	0.1067	-0.2793	0.1400
2011	3,970,400	26,017,519	1,285,056	27,772,829	0.0898	70.84	0.7082	0.2808	-0.0011	0.1976	0.1269	0.6289
2012	6,782,416	33,322,535	1,283,607	33,261,745	0.1012	115.39	0.4374	0.1347	0.4998	0.2337	0.1324	0.8175
2013	9,748,762	37,810,456	1,925,165	41,035,443	0.1146	209.72	0.1637	0.1395	0.3334	0.2134	-0.1291	0.9564
2014	11,344,403	43,083,169	2,567,107	49,792,183	0.0998	410.3	0.0958	0.0390	0.1263	0.1901	-0.0240	0.2664
2015	12,431,598	44,761,307	2,891,346	59,258,770	0.0974	519.62	0.0412	0.0103	-0.0009	0.1698	-0.0626	0.2480
2016	12,944,185	45,222,089	2,888,687	69,322,838	0.0913	648.51						

Kohat Cement

Books close on June 30

Year	Net Profit (million)	Net Sales (million)	Dividends Paid (million)	Ltd	Book Value (equity) (million)	Financial Leverage (LTD/(LTD+Equity)) (ratio)	Share Price (closing Price on June 30th) (Rs)	Net Profit (growth)	Net Sales (growth)	Dividends Paid (growth)	Book Value (growth)	Financial Leverage (growth)	Change in Share Price
								NP	NS	Div	BV	FL	SP
2006	789,866,961	2,327,237,579	13,903	406,577,034	2,283,939,693	0.1511	53.95	-0.9382	-0.3324	-0.5276	0.0244	2.7009	0.0102
2007	48,807,582	1,553,733,256	6,568	2,968,856,257	2,339,656,143	0.5593	54.5	-1.1218	-0.1171	-0.7014	-0.0045	0.0262	-0.3334
2008	-222,439,366	1,371,791,931	1,961	3,278,294,352	2,329,129,147	0.5846	36.33	-0.9879	1.4753		-0.0247	0.0649	-0.7996
2009	27,092,698	3,395,580,759		3,406,954,843	2,271,547,165	0.6000	7.28	-0.8056	0.6483		0.0723	0.0439	-0.0934
2010	327,777	3,692,038		3,469,937	1,960,970	0.6389	6.6	25.0611	0.5309		0.7864	-0.3927	-0.0742
2011	63,716	6,085,435		4,211,045	2,102,816	0.6670	6.11	0.5854	0.2120		0.6082	-0.3927	5.6219
2012	1,660,511	9,316,381		2,557,126	3,756,458	0.4050	40.46	0.1984	0.1306	0.6831	0.4215	-0.2857	1.1214
2013	2,632,633	11,291,213	365,299,599	2,459,315	6,041,048	0.2893	85.83	0.0531	-0.0230	0.7994	0.2573	-1.0000	0.4892
2014	3,154,827	12,765,670	614,849,407	1,868,454	8,587,467	0.1787	127.82						
2015	3,322,268	12,472,197	1,106,364,014	2,141,344	10,797,254								