PROFITABILITY AND SHARE PRICE: A COMPARATIVE STUDY AMONG THE TEXTILE AND CEMENT SECTOR OF PAKISTAN

Aideed Bashir[a], Abeera Amir[a]

[a]Department of Accounting & Finance, University of Central Punjab, Lahore, Pakistan
*For correspondence; E-mail: beya_amir@hotmail.com
*For correspondence; E-mail: aideed101@gmail.com

ABSTRACT: *The aim of the study was to estimate the effect of profitability indicators relating to ROA, ROE and EPS on stock prices of cement and textile industry of Pakistan. A sample of 30 companies which are listed on the Pakistan Stock Exchange (PSX) has been employed proportionately relating to textile and cement industries, for a period of 2009 to 2017. Panel technique has been accommodated to test empirically the accord of profitability with the stock price. The study found EPS and ROE to have a significant accord on the stock price in case of both sectors, i.e. cement and textile. On the contrary, ROA was found to be insignificant in both the sectors. This study would be beneficial for management of textile and cement business to utilize the information for future prosperity. The study has also determined certain gaps in the literature which need to be realized as per the suggestions proposed in the study*

Keywords: Return on Assets, Return on Equity, Earnings per Share, Share Price, Textile, Cement.

1. INTRODUCTION

A common objective for every organization is to earn profit and grow, as without being profitable a business has a risk of survival in the long run. Similarly, an investor who wishes to earn superior return on their investment tends to focus on the information available in the market and then accordingly utilize such information to invest. However every investor utilizes their own strategies and some utilizes the services of professionals to invest on their behalf. Various analyses are carried out by different investors, one such analysis relates to being "fundamental analysis". A fundamental analysis is a strategy to assess the value of the security by focusing on aspects which may affect the company, however it includes both quantitative and qualitative aspects. The quantitative aspect which relates to the true value of the stock or the value of cash flows in current terms, and the other referred to as the qualitative aspect follows factors influencing price but do not relate to the business prospects [1].

Hence, it is important for businesses to measure their profitability and accordingly plan for future growth. Also profitability can further be reflected through stock price (SP). A Stock exchange is a place where a person can invest his/her saving and can earn profit on it. Stock exchanges are the significant component of the financial system of a country. One mode for businesses to earn finance is through the stock exchange, where stock exchange acts as a podium or floor which circulates the saving of the general public [2]. Many of the economists and financial analysts believed that price of securities are affected by supply and demand in the economy[2, 3]. Stock price is basically a combination of numerous factors. This study has accommodated use of fundamentals of the companies which are Earnings per Share (EPS), Return on Assets (ROA) and Return on Equity (ROE) to assess the impact on the stock prices (SP). The study pertains to be of comparative nature between the two most significant manufacturing sectors of Pakistan (textile sector and cement sector).

Textile sector contributes more than 50% in the GDP and exports [4]. Likewise, the cement industry of Pakistan has a stringent role towards economic prosperity of Pakistan and it constitutes 3% of the overall manpower of the country [5]. Lately, it is evident that both of these sectors of Pakistan are facing abounding issues. There are high prices in cement sector and power and energy crisis in textile sector. Both sector's performance has been affected and it is towards the decline. The cement and textile sector are performing under as per their expected potential. Hence, as the importance of these two manufacturing industries provides an opportunity to empirically investigate the accord of profitability measures on the stock price. After investigating the literature, the variables inculcated in the research paper are ROA, ROE and EPS. Likewise, the significance of this research is that it has collectively assessed the impact of ROE, ROA and EPS on the SP, which had been ignoredpreviously[6, 7, 8, 9].

Hence, the objectives of the study are to find the relationship of profitability variables with stock price in both the sectors (textile and cement) of Pakistan, and also, to compare the profitability with stock price of textile and cement sector of Pakistan.

2. LITERATURE REVIEW

Profitability is a core objective for any profit seeking organization. As the concept of profitability has varying approaches (economic and accounting approach), and which has been explained by Anglo-Saxons and other being the continental economical review [10]. The accounting approach to profitability is defined as the result of selling commodities more than the actual cost [11]. Furthermore in the same domain profitability has been defined as the ability of a business to achieve revenue. Likewise according to [12], profitability is the final result of numerous management decisions and it shows the overall operating outcome of the connected accord of asset, debt management and liquidity. On the contrary, [13] takes into consideration, that business profitability aims to assess the level of earnings or revenue a business is able to earn in a designated period of time. Hence as per the vast literature which is available on the topic, profitability has been widely researched in the domain of finance by numerous researchers to study the brunt of profitability indicators with stock prices, which can be seen in table 1, but less research pertains to exist on the developing economy like Pakistan. Investors tend to act rationally, and it is this behavior which leads the investors to invest in those businesses which are prospering. Where past literature presents that investors tend to invest more amount of money as to when the sp of their shares escalates and vice versa

[1]. Share prices are considered to be of utmost importance for the organizations as they are seen as an organization's strength/health for the company. If share prices are increasing then it proceeds that the organization's performance has been well. Also, the importance of stock price is paramount for the shareholders, as they provide rapid capital opportunities for the organization. Hence, this study engages to employ profitability indicators (EPS, ROE and ROA) to empirically test the accord with stock price.

Table 1 Past Literature

Authors	Factors	Year	Market
[14]	B/M, P/E, Dividend, GDP & Interest Rate	2012	Pakistan
[15]	Stock Dividend, Cash Dividend, ROE, EPS & Profit after Tax.	2012	Pakistan
[16]	BV, DPS, EPS, DC, DY, P/E	2013	India
[17]	DPS, EPS, BV, DP, P/E, Size	2014	Jordan
[18]	EPS, DPS, DPR, Size, DY	2015	India
[19]	ROE, BV,EPS, DPS, DY, PE, Debt	2015	Bahrain
[3]	Assets, ROE, ROA, EPS, BV, LEV, PER	2017	Serbia

Earnings per Share (EPS) are one measure of profitability [17]. EPS is most extensively cited statistics in financial analysis [20]. However, there are still inconsistencies present in the literature, where many studies found EPS to have a compelling impact on the SP [21, 22, 16, 17]. On the other hand, many researchers found earnings per share to be less compelling towards affecting the SP [23, 19, 18]. Likewise, [24]assessed accord of organizations listed on the Karachi Stock Exchange (KSE) and found that EPS reflected a compelling impact on the SP.

Similarly, [3]investigated the impact of organization performance on organizations prices listed on the Belgrade stock exchange and highlighted EPS of the organization to have a positive accord on the stock price. Moreover, to see if an organization has been performing well, an investor can indulge in an analysis of the financial statements of firms. The significance of financial statement analysis is to assess the organizations financial situation in order to make suitable plans for the future [9]. Furthermore, the concern of the investors is that how much he/she is getting return on the investment in an organization [24]. The reason for accommodating ROA and ROE in the current study is due to that both the variables are linked with net income, as investors are very much interested in profits which the company earns

Marc

[9].

In line with the discussion above, a researcher assessed the impact of various relative and absolute measures with SP on firms listed on the Karachi Stock Exchange (KSE) and found (ROE) to be a positively correlated with stock prices [25]. Furthermore, another research carried out in Jordan depicted that ROE have no accord with the SP [24, 15]. Return on assets (ROA) which is another profitability measure has been employed in the research; where [9]found that ROA affect less to stock price. On the other hand[24, 21]found positive but low accord of ROA with performance.

Thus, this study engages to employ EPS, ROE and ROA to empirically test the accord with performance. Hence, as per the discussion, the following hypothesis and framework (Figure 1) has been established in the study:

H1: ROA has a significant impact on share prices of companies of cement sector.

H2: ROE has a significant impact on share prices of companies of cement sector.

H3: EPS has a significant impact on share prices of companies of cement sector.

Similar hypothesis were developed for the textile sector of Pakistan. Moreover, the comparative hypothesis in the current study isprofitability impact on share pricesis significantly in the two sectors.
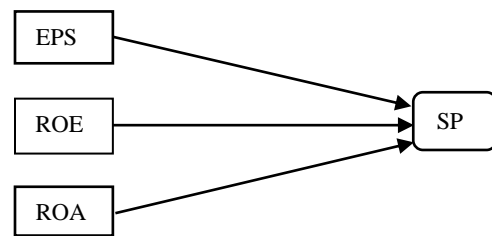
Figure 1: Framework

3. RESEARCH METHODOLOGY

The study pertains to assess the accord of certain fundamentals in the stock price by considering two most compelling manufacturing sectors i.e. textile sector and cement sectors by employing a panel technique. Convenience sampling has been employed as a sampling was done, reason as per the availability of the data. The model incorporated in the research is as follows.

Stock Price (SP) = $\beta_0 + \beta_1$ (ROA) + β_2 (ROE) + β_3(EPS) where;
ROA = Return on Asset
ROE = Return on Equity
EPS = Earnings per Share

For the purpose of data sampling, our study has considered a random sample of 30 companies, 15 pertaining to textile and 15 companies of the cement sector listed at Pakistan Stock Exchange (PSX) for the period of 2009 to 2017. The data has been gathered from the audited annual financial statements of the companies, the list of companies relating to textile and cement are shown below in table 2. Three independent variables have been employed in the research which are EPS, ROA and ROE, whereas the dependent variable in the study corresponds to be the SP of the companies.

Table 2 List of Companies

Textile	Cement
Ali Asghar, Allawasaya, GulAhmed, Babri Cotton, Bhanero, Blessed, Faisal Spinning, Fazal Cloth, Dar es Salam, DewanFaooque, Din, DM, Elahi Cotton, Ellcot spinning, Gadoon	Attock Cement, Bestway, Cherat, Dewan, Fauji, Fecto, Flying, Gharibwal, Kohat, Lucky, Maple Leaf, Pioneer, Power, Thatta, Safe Mix, Con.Ltd

4. RESULTS

The table below shows the descriptive of the study which provide overall convenient information of the study, showing information related to mean standard deviation, minimum and maximum of SP, ROA, ROE and EPS. At first, SP this relates to closing month share price of the companies, display the minimal value SP of textile businesses to be rupees 2 while that of cement businesses to be rupees 1.8. Similarly the maximum value of cement business ranged to be rupees 500.28 while that of textile businesses to be rupees 270.94, however the average SP of cement businesses pertained to be 61 rupees while that of textile businesses to be 69 rupees. Similarly EPS which is the allocation of revenue to the shareholders, the EPS in cement business ranged from -7.08 rupees minimum to 42.34 rupees maximum and with an average of 6.20 rupees, while on the other hand the EPS in the textile business ranged from -4.74 rupees minimum to 7.09 rupees maximum and the average EPS to be 1.249 rupees. Furthermore, ROE which is the ability of the business to generate revenue by utilizing the shareholders' funds, where the ROE in cement business ranged from -0.59 minimum to 0.78 maximum and with an average of 0.12 where on the contrary, the ROE of textile businesses ranged from -0.98 to 0.77.

Table 3: Descriptive Statistics

	Cement				Textile			
	Mean	S.D	Min	Max	Mean	S.D	Min	Max
SP	61.3443	86.0420	1.8	500.28	69.6366	70.0691	2	270.94
EPS	6.20592	9.61118	-7.08	42.34	1.24955	2.05084	-4.74	7.09
ROE	0.12081	0.20234	-0.59	0.78	0.03570	0.24417	-0.98	0.77
ROA	0.08111	0.10553	-0.22	0.39	0.02681	0.08385	-0.18	0.23

Moving towards the Panel results, at first for both models (model 1 corresponding to cement businesses and model 2 for textile businesses) to see the accord among profitability and SP and accordingly indulge in a comparison. Hausman test had been carried out to make a selection among fixed or random effect model, in both the models hausman test came out to be insignificant as the p value to be greater than 0.05, hence suggesting that random effect model is more appropriate. As for both models the significance of random effect model was gauge out to be less than 0.05 (0.000), thus suggesting overall both the models came out to be significant. Moreover, in model 1 relating to cement about 77.04% of the variation on the SP is explained by profitability indicators and the rest by other. Likewise in model 2 for textile overall 64.85% of the variation in the SP is explained by the profitability indicators while the rest by some other indicators.

Table 4: Results

Model		Coefficients	P Value	R-squ (overall)	(Prob> chi2)	HausmanTest [Prob>chi2]
1 Cement	Constant	17.53601	0.005	0.7704	0.0000	0.4305
	EPS	8.867572	0.000			
	ROE	-81.48245	0.005			
	ROA	-16.99984	0.800			
2 Textile	Constant	56.1147	0.000	0.6485	0.0000	0.0555
	EPS	9.849935	0.000			
	ROA	123.9753	0.125			
	ROE	-59.11197	0.026			

Furthermore, considering the coefficients in case of model 1 for textile sector, it can be assessed that EPS is significant which is evident from the P-value of 0.000 (less than 0.005).This suffices that keeping all others variables unchanged, a one rupee rise in EPS would cause the SP to raise by Rs.8.8675, meaning a rise in the EPS of the cement companies would lead to an improvement in the SP of the cement companies, thus accepting H3. Similarly ROE also proved to be significant in model 1, with a p value of 0.005 also the coefficient of ROE suffices that a one percent increase in ROE would cause the SP of cement firms to abate by Rs.81.482, hence accepting H2. However, ROA proved to be insignificant which can be gauged out from the table as the significance value came out to be 0.800 which is greater than 0.05 and thus rejecting H1. Furthermore, the coefficient of ROA for model 1 shows that a one percent increase in ROA would abate the SP of cement firms about Rs 16.9994.

In case of model 2 for the cement sector, it was again found that both EPS and ROE came out to be the significant variable, which is evident from the P-value of both less than 0.005. This suffices that keeping all others variables unchanged, a one rupee rise in EPS would cause the SP to raise by Rs.9.849935, the rise in EPS of the textile firms would lead to an improvement in the SP of the cement businesses, while again both ROA being insignificant for which there significance value came out to greater than 0.05.

Furthermore, the results relating to EPS have a statistically compelling or significant effect on the SP. This shows that

EPS compelling elucidate the variation in SP as shareholders concern more about the level of profits which is further transferred to them as dividends, thus as to whether the amount is being paid from the current or last year earnings. The significant relationship explains that an increase in EPS would further increase the SP. Moreover, ROE which is also found to be significant in the research explains, that management is efficiently utilizing the shareholders' funds to earn revenue. On the contrary, ROA was found to be insignificant in both models.

As per the discussion, the following models have been established as follows:

$SP = 17.53601 - 16.9994ROA - 81.482ROE + 8.8675EPS$
(Model 1 Cement)

$SP = 56.1147 + 123.9753ROA - 59.11197ROE + 9.849935EPS$
(Model 2 Cement)

Where;
ROA = Return on Asset
ROE = Return on Equity
EPS = Earnings per Share

5.   CONCLUSION AND FUTURE RESEARCH

When an investor takes interest in investing in a company, they at first analyze the company's financials as to whether the company is performing well or not. Along with many other ratios, the study concerned to investigate the impact of profitability measures with the SP and on such basis to make a comparison of two crucial manufacturing sectors of Pakistan, textile and cement sector. Hence, for this purpose, a sample of 30 companies has been taken for a period of 2009-2017. Panel data approach has been employed to assess the impact of profitability indicators with SP. Overall the results proved profitability to have a compelling accord on SP, individually in the sectors as well as comparatively. The empirical estimation showed that comparatively EPS proved to be significant in both the models/sectors. EPS has been considered a crucial variable for annual statements by explaining that "stock value is a function of two financial statement variables being earnings and book value", [26].

Thus, on the basis of the results acquired, our study concludes that EPS has a significant or compelling accord or effect on the SP. Similarly, the results relating to EPS are also consistent with the previous findings of [17, 3]. The results are also in line with the proposal presented by [27] that EPS has a positive impact on the SP, where a rise in EPS would lead to a rise in the SP as well. A high EPS can be explained by the business providing better return to the investors. On the other hand, ROA was found to be insignificant. ROE was also found to be significant in both the models, however having a negative impact on the SP as a high ROE does not suffice a company has large debt and is raising fund by taking loans rather than issuing shares, also it is seen that ROE has a weak relation with stock returns [28]. In the same domain, [28] highlighted that ROE actually explains as to how much a business would be able to earn revenue with its net assets, but ROE would work much better as a measure of risk [29, 30].

Although EPS has an impact on the price in emerging economy like Pakistan but still these results cannot be generalized to other developing countries. This research considered 30 companies pertaining to textile and cement

companies of Pakistan listed at Pakistan Stock Exchange (PSX). Future researchers can include other independent variables i.e. dividend per share, dividend payout ratio, size, book value and leverage and a comparative study can be conducted. Moreover, further research can be done as a comparison of one sector of two countries for instance; textile sector or cement sector of emerging economies can be compared.

6.   REFERENCES

[1] Y. Leitner, "Stock prices and business investment," *Business Review,* no. 4, pp. 12-18, 2007.

[2] M. U. Javaid, "Determinants of equity prices in the stock market," *Paradigms,* vol. 4, no. 1, pp. 98-144, 2010.

[3] S. M. Avdalović and I. Milenković, "Impact of company performances on the stock price:An emperical analysis on selected companies in Serbia," *Ekonomika Poljoprivrede,* vol. 64, no. 2, pp. 561-569, 2017.

[4] M. Asad, "Working capital management and corporate performance of textile sector in Pakistan," *Paradigms,* vol. 6, no. 1, pp. 100-114, 2012.

[5] N. Ali, "The role of cement industry in the economic development of Pakistan," *International Journal of Physical and Social Sciences,* vol. 5, no. 3, pp. 75-86, 2015.

[6] M. Nishat and C. M. Irfan, "Dividend policy and stock price volatility in Pakistan," in *Pide-19th annual general meeting and conference*, 2004.

[7] M. S. Nazir, M. M. Nawaz, W. Anwar and F. Ahmed, "Determinants of stock price volatility in Karachi Stock Exchange: The mediating role of corporate dividend policy," *International Research Journal of Finance and Economics,* no. 55, pp. 100-107, 2010.

[8] Y. Habib, Z. I. Kiani and M. A. Khan, "Dividend policy and share price volatility: Evidence from Pakistan," *Global Journal of Management and Business Research,* vol. 12, no. 5, pp. 78-84, 2012.

[9] S. Ichsani and R. S. Agatha, "The effect of return on equity (ROE) and return on investments (ROI) on trading volume," *Procedia - Social and Behavioral Sciences,* vol. 211, pp. 896-902, 2015.

[10] Achim and M. Violeta, "Business performances: Between profitability, return and growth," *Economic Sciences Series,* vol. 2, pp. 1-12, 2010.

[11] F. Wood and A. Sangster, Frank Wood Business Accounting 1, Prentice Hall, 2012.

[12] Halpern, Weston, Brighmal, Llie and Dragusin, Finate manageriale: Modelul Canadian, Editura Economica, 1998.

[13] D. Vogel, The market for virtue: The potential and limits of corporate social responsibility, Brookings Institution Press, 2007.

[14] M. N. Khan and Amanullah, "Determinants of share price at Karachi Stock Exchange," *International Journal of Business and Management Studies,* vol. 4, no. 1, pp. 111-120, 2012.

[15] k. Iqbal, "Effect of dividends on stock prices: A case of chemical and pharmaceutical industry of Pakistan," *Management,* vol. 2, no. 5, pp. 141-148, 2012.

[16] N. Malhotra and K. Tandon, "Determinants of stock prices: Empirical evidence from NSE 100 companies,"

Marc

International Journal of Research in Management &

[17] M. A. Almumani, "Determinants of equity share prices of the listed banks in Amman stock exchange: Quantitative approach," *International Journal of Business and Social Science,* vol. 5, no. 1, pp. 91-104, 2014.

[18] K. Challa and G. Chalam, "Financial determinants of equity share prices: An empirical analysis study with reference to selected companies listed on Bombay Stock Exchange," *International Journal of Applied Financial Management Perspectives,* vol. 4, no. 2, pp. 1761-1769, 2015.

[19] T. Sharif, H. Purohit and R. Pillai, "Analysis of factors affecting share prices: The case of Bahrain stock exchange," *International Journal of Economics and Finance,* vol. 7, no. 3, pp. 207-216, 2015.

[20] M. Davies, R. Paterson and A. Wilson, "Earnings per share," in *Earnings per share*, London, UK GAAP, 1997, pp. 1321-1375.

[21] Khoda and Uddin, "An empirical examination of random walk hypothesis for Dhaka stock exchange: Evidence from pharmaceutical sector of Bangladesh," *International Research Journal of Finance and Economics,* vol. 33, pp. 87-100, 2009.

[22] S. Sharma, "Determinants of equity share prices in India," *Journal of Arts, Science & Commerce,* vol. 2, no. 4, pp. 51-60, 2011.

[23] Sen, Subir and Ray, "Key determinants of stock prices in India," *The ICFAI Journal of Applied Finance,* vol. 9, no. 7, pp. 35-40, 2003.

[24] M. A. M. Kabajeh, S. M. A. A. Nu'aimat and F. N. Dahmash, "The relationship between the ROA, ROE and ROI ratios with Jordanian insurance public companies market share prices," *International Journal of Humanities and Social Science,* vol. 2, no. 11, pp. 115-120, 2012.

Technology, vol. 3, no. 3, pp. 86-95, 2013.

[25] K. I. Khan, M. Aamir, A. Qayyum, A. Nasir and M. I. Khan, "Can dividend decisions affect the stock prices:A case of dividend paying companies of KSE," *International Research Journal of Finance and Economics,* vol. 76, no. 68, pp. 69-74, 2011.

[26] J. A. Ohlson, "Earnings, book values, and dividends in equity valuation: An empirical perspective," *Contemporary accounting research,* vol. 18, no. 1, pp. 107-120, 2001.

[27] J. Baskin, "Dividend policy and the volatility of common stock," *Journal of Portfolio Management,* vol. 15, no. 3, pp. 19-25, 1989.

[28] C. Rotblut, "Beware: Weak link between return on equity and high stock price returns," 18 Jan 2013. [Online]. Available: https://www.forbes.com/sites/investor/2013/01/18/beware-weak-link-between-return-on-equity-and-high-stock-price-returns/#5553acdc6954. [Accessed 29 jan 2018].

[29] J. O'Shaughnessy, What works on Wall Street: The classic guide to the best-performing investment strategies of all time, McGraw Hill Professional, 2011.

[30] R. Tortoriello, Quantitative strategies for achieving alpha: The standard and poor's approach to testing your investment choices, McGraw-Hill Finance & Investing, 2008.