

RESEARCH ARTICLE

Does Stock Market Explain the CSR Announcements to Investors? Or is it Just an Absurd Relation?

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Abstract: The purpose of this study is to investigate the impact of Corporate Social Responsibility (CSR) announcements on shareholder and investors' perceptions in Pakistan. 46 press releases regarding CSR announcements are taken as a sample from the banking sector of Pakistan. Event study methodology with a maximum of 21 days window and 272 daily observations. Different event windows are taken to check the model for both the short and long term impact of CSR. This study is primary in nature as CSR growth and disclosure procedures are not mature yet in Pakistan. This study may post some points for the policymakers, companies, and officials to look after and promote corporate social responsibility in the corporate sector and give awareness to all the stakeholders about the importance and significance of Corporate Social Responsibility. The results indicated that investors are affected by CSR announcements but this effect persists for short time. There are insignificant results when we increase the period of analysis. There is less awareness of CSR activities among firms, investors, and shareholders because of the less regulatory support and promotion for these activities in Pakistan.

Keywords: Corporate Social Responsibility, CSR, Share Prices, Stock Market, Event Study Methodology

JEL Classification Codes: F65, G30, O16, M10

1 Introduction

Corporate social responsibility (CSR) refers to the volunteer engagement of the firm in those activities, which can be beneficial for its stakeholders i.e. shareholders, employees,

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creditors, debtors, customers, and society, etc. This idea of CSR diverts the attention of researchers from shareholders' benefits to managerial benefits because CSR activities are arranged and funded by the firms' managers, whereas managers' discretion of funding CSR activities out of the firm's profits can raise some principal-agent conflicts. On the other side, these activities can be viewed as the struggle to achieve the goal of maximization of shareholders' wealth, because initiating the CSR activities can enhance the firm's value by increasing its stock price. Therefore, researchers have been given a lot of attention to this emerging issue of CSR. Several studies have suggested different relationships between CSR and a firm's performance, while different empirical shreds of evidence have suggested inconsistent results.

Some studies argued that firms can obtain better resources (Cochran & Wood, 1984; Waddock & Graves, 1997), employees with improved qualities (Greening & Turban, 2000; Turban & Greening, 1997), the abilities to market their products and services in an efficient manner (C. Fombrun, 1996; Moskowitz, 1972) and the competencies to create the unforeseen opportunities (C. J. Fombrun et al., 2000) by improving their social performance. Neo-classical economists suggested that participating in CSR activities can increase the firm's cost and negatively impacts its competitive advantage (Aupperle et al., 1985; Friedman, 2007; Jensen, 2002; McWilliams & Siegel, 1997). Brammer & Millington (2008) argued that the utilization of a firm's resources for funding the CSR activities can raise the managerial benefits instead of shareholders' wealth.

CSR has become internationally famous and is increasingly being researched by different academicians. But in the case of Pakistan, it is at its initial stages and gaining maturity as companies in Pakistan have started to focus on their social performance along with firm performance. Credit rating agencies are frequently paying attention to surveying the Pakistani companies concerning their stakeholder management. But the concept of social performance is still not famous in its true sense in the Pakistani scenario. Only a few firms are considering the CSR strategy and most of them are multinationals that follow their own CSR limits and standards. A big question here is why Pakistani firms are not considering social responsibility as an important corporate responsibility? The answer is clear that they might be unfamiliar with the benefits of initiating the CSR activities or they might consider that even though they do not initiate such activities, they will not be facing any kind of risk regarding their survival in the future. Waheed (2005) used the Pakistani firms' data to develop the CSR compliance report for RBI (Responsible Business Initiative). The continuous development of CSR is getting more popularity among researchers and they have started to focus their empirical work on determining the benefits of CSR initiatives to the financial performance of the firms and on exploring the CSR role in the performance of the debt and equity market. Spending on ethical issues is supposed to lead the market indices to perform well which will ultimately enhance the managers' reputation by increasing the shareholders' wealth.

The non-financial sector has frequently been researched internationally and in the Pakistani scenario, there are also some studies focused on CSR by considering this sector. Research in CSR is yet to be made in banking sector of Pakistan. Pakistani banks are increasingly responding to the ethical issues concerning the stakeholders. CSR activities are becoming famous in the Pakistani banking sector due to the business nature, the banking industry is service-oriented and customers are the key factors of success for these types of industries. While in Pakistan, approximately all the banks are offering the same type of services at almost the same costs, therefore, cut-throat competition among banks can be wit-

nessed. The economic condition of Pakistan reflects on the unhealthy lifestyle of Pakistani people. Pakistani banks have better option to be engaged in corporate social responsibility activities to provide the people with an improved lifestyle and this initiative will not only increase the market share but also positively impact the stock returns. This study also focuses on the banking sector of Pakistan as it would be a contribution to the existing body of knowledge concerning corporate social responsibility issues. The main objective of this study is to explore the impact of CSR activities on stock returns of Pakistani banks.

The study will help both the banking sector and investors of Pakistan. First, it elaborates that CSR has the potential to increase market share and there is an increase in market reputation. From an investor's point of view, this study contributes by indicating how the market is going to react to the news of CSR activities. An investor can manage to gain above-average returns from the news.

The second part of the remaining of this study consists of a review of related literature, the third part covers the research methodology, the fourth part empirically reports results and discussions and the fifth part provides a holistic conclusion of the study.

2 Literature Review

Various research studies are available that examine the relationship between corporate social responsibility and a firm's performance but the empirical results of them suggested mixed relationships. There is a brief history of studies related to the relationship between CSR activities of the firms and firm performance. CSR has contributed to the fundamentals of the firms just like [Bragdon & Marlin \(1972\)](#) who observed the positive impact of CSR on firm earning per share (EPS) growth, return of equity, and return of capital. [Bowman & Haire \(1975\)](#) and [Spicer \(1978\)](#) also observe the positive impact of CSR activities on firm performance. [Pérez et al. \(2020\)](#) found that there is an effect of both negative and positive CSR news on the stock market. They suggested that negative CSR news has a strong negative impact on banking, energy, goods, and services industries while positive CSR news derived basic, finance, and banking industries positively. [Odeh et al. \(2020\)](#) found no significant relationship between CSR and stock prices of 102 service sector firms listed on the Amman Stock Exchange. They also suggested that there is no significant direction for the stated relationship. [Escamilla-Solano et al. \(2019\)](#) used the PLS-SEM model to analyze the impact of CSR on firm profitability. They reported that disclosure of CSR measures significantly and positively improved the stock profitability in economic and social dimensions.

[Hao et al. \(2018\)](#) reported the significant negative relationship between CSR and stock returns of the Chinese stock market. They also indicated the strong moderating role of internal control procedures between CSR and abnormal returns of stocks. CSR activities reduced the stock price crises with strong internal control. [Katsikides et al. \(2016\)](#) examined the relationship between stock market performances and stock returns. They used event study methodology to analyze five events, three CSR events from the banking industry, and two from the oil industry. They reported significant negative impact following the event. [Flammer \(2013\)](#) conducted the event study for the environmental news of US publicly traded companies. He found that companies with high level of CSR activities on environments are less prone to positive or negative market reaction to eco-friendly or eco-harmful events. For other companies, he indicated that eco-harmful events increase the negative market reaction.

Wang et al. (2011) analyzed the investment behavior concerning corporate social responsibility. They indicated that there is no change in the behavior of investors before the event but after the CSR event, there is a significant change in firm performance and investors' behavior. Lev et. al. (2008) in their study indicated the firm enhances its firm sales with the reputation created by CSR activities. Some of the researchers also observe the negative relationship between firm performance and CSR announcements. Aupperle et al. (1985) observe the negative impact of CSR activities on firm return on assets. Fogler & Nutt (1975); C. Fombrun & Shanley (1990); McGuire et al. (1988); McWilliams & Siegel (2000), and Orlitzky (2013) elaborated mixed and neutral results regarding the relationship of CSR activities and firms performance which indicate that the relationship between CSR activities and firms performance is a fallacy or absurd. CSR represents a different dimension in a firm and carries significance, suggesting it has no role in firm growth and performance.

There is very limited literature available on stock market performance and firm CSR activities. Alexander & Buchholz (1978) used reputation rating as a proxy to CSR while observing that CSR activities of a firm provide better market returns. Cochran & Wood (1984) used the Moskowitz reputation index as the proxy to measure corporate social responsibility and observe positive abnormal returns in the market with firm CSR activities. Blackburn et al. (1994) observe the positive impact of CSR activities on return on assets of the firm and abnormal returns of the firm. Akpinar et al. (2008) and McWilliams et al. (1999) also indicated the positive relationship between CSR activities and firm market returns. This positive relationship of firms' CSR with stock market performance indicates that CSR matters when it comes to the stock market performance of the firm. Investors considered CSR announcements important while investing in the stock market.

This paper aims to investigate the impact of CSR announcements on stock market returns. Stock market returns are taken as the proxy for market performance, which entails the perception of investors and stakeholder of the company. The hypothesis which needs to be analyzed.

H_1 : There is a significant impact of CSR announcements on the market performance of banks.

3 Research Methodology

The objective of this paper is to analyze how firms react to the announcements regarding CSR in Pakistan banking sector. Press releases regarding the social activities in the field of education, health, sports, and economic well being are taken as a proxy for CSR announcement. Firm's performance is measured by cumulative abnormal returns (CAR) which are calculated by using the market model (Wong et al., 2010). 10 banks are used in the sample with 46 press releases regarding CSR activities. The study covers all the press releases, which are officially uploaded or mentioned on the bank's website or financial report with proper date. All data with incomplete information is dropped from the sample. For the calculation of abnormal return, the market model is used with daily stock returns for CSR announcements for the period 2010-2013. Stock return data has been collected from Pakistan Stock Exchange (PSX).

The first step is to conduct the linear relationship between the return of securities and the return of the market index.

$$R_{it} = \alpha_i + \beta_i R_{mt} + \varepsilon \quad (1)$$

Where,

Rit: Daily returns of ith security

Rmt: Market index (KSE 100) daily rate of return

α_i : Expected value of $(R_i - \beta_i R_m)$

β_i : Slope coefficient of market return

ε : Error term

The daily rate of returns of securities and market index is calculated by the following equation.

$$R_{it}/R_{mt} = (P_t - P_{t-1})/P_{t-1} \quad (2)$$

Where,

P_t = Closing price of the security on day t

P_{t-1} = Closing price of the security on day t-1

The main concern of our study is to capture the abnormal return on security and to analyze the expected return on security should be known.

$$ER_{it} = \alpha_i + \beta_i R_{mt} \quad (3)$$

Where $E[R]_{it}$ is the expected return for the period of observation. The methodology resembles [Huang & Walkling \(1987\)](#) with slight change in the observation period because the dynamics of Pakistani companies are different from other countries where the volatility of the stock market is concerned. Maximum 293 daily prices are used as the period around the event day, which is denoted as t. The period starts at t-272 and ends at t+20. The period of t-272 to t-20 is treated as the estimation period and through t-20 (pre-announcement) to t+20 (post-announcement) is taken as the event window for analysis.

The deviation from the expected return is the abnormal return on a security, which helps us to understand the change that a particular event can bring on to the firm value. Abnormal return is calculated from the following equation.

$$AR_{it} = R_{it} - E[R]_{it} \quad (4)$$

Where,

ARit : Abnormal returns

Rit : Daily return on ith security

$E[R]_{it}$: Expected return from ith security

Then from abnormal returns, we calculated the average abnormal return by aggregating abnormal returns of the entire selected sample on day t and then divide it with the total number of firms with returns on that day.

$$AAR_t = \Sigma AR_{jt}/N_t \quad (5)$$

From equation number 5, cumulative abnormal returns (CAAR) are calculated for different event windows. CAAR used to estimate whether there is a significant impact on the stock market with the announcement of CSR by banks in Pakistan.

4 Results and Discussions

The study period of three years (2010-2013) is used in which CSR announcements in the shape of press releases at a different time in the year. A total of 46 announcements are collected from the website of the bank because there are no rules defined by the securities and exchange commission of Pakistan (SECP) to promote and disclose the CSR activities.

Table 1 shows the segregation of the CSR announcement of banks in Pakistan. There is a total of 46 announcements, indicating all press releases from 2010 to 2013 with actual dates. These press releases possess the information regarding all the social welfare activities i.e. health, security, education, sports, etc., these activities are not for profit, and expenses for these activities are taken out of the retained earnings of the business for the social well being and long term goodwill for the business. As discussed above, there is a very limited trend in Pakistan regarding CSR activities. SECP has just started taking notice of these activities.

The table shows that the National Bank of Pakistan (NBP) has most of the press releases regarding CSR activities. It is healthy for a bank considering its stakeholders are always aware of the fact that banks are doing some work for social well being of society. NBP possesses the ownership of government, their objectives are not fully maintained to earn a profit. There are certain requirements of government bodies, which require these state-owned enterprises (SOEs) to give something back to society in the form of social work and invest in socially compromised fields for restructuring and regain. The bank contributing to the CSR on the second number is JS bank with 8 announcements throughout the period, these banks want to maintain their long term position in the market by giving something back to the people in the shape of education, health, or security.

Table 1: Number of CSR Announcement by Banks

CSR Announcements	2010-2013
Bank Alfalah	4
National Bank of Pakistan	20
Bank Islami	1
Faisal Bank	1
JS Bank	8
MCB Bank	4
NIB bank	1
Stand. Chart. Bank	1
Meezan Bank	5
Silk Bank	1
Total	46

Table 2 tests the main hypothesis of this study, first column indicates the overall result of all banks with 46 announcements and the results are quite clear, indicating that there is a strong significant but negative impact of CSR announcement on investor perception of the company, in other words, banks' investors and stakeholders do care about the CSR activities. Further, understandably, investors consider CSR announcements for a rather shorter period. As indicated by the t-test, CAAR with the smaller windows i.e. CAAR (-2, 2), (-1, 1), (0,1), and (0,2) has negative significant values, which indicates that CSR announcements

have 2 to 3 days impact on investors perception and the negative sign shows that investor is earning below their expectations. There may be a possibility of agency costs because there might be a conflict between managers and shareholders. After all, managers have to increase the wealth of the shareholders. Taking funds from retaining earnings for CSR activities, which can also be given as dividends to shareholders but not giving may create a conflict between major shareholders. The company is using retained earnings for CSR, which apparently does not increase firm value with an investment in positive NPV projects and also not given as dividends to shareholders have a negative impact on the market value of the firm. Although this negative impact does not last for the long term because of the nature of the activity performed by the firm. CSR announcements have a significant impact on stock returns. The impact started to vanish as the event window started to expand.

From column two to column eleven the results are presents for each bank separately. Results are almost similar to overall results, for larger event windows all banks show insignificant results as stated by the t-test this indicates that banks' investors are not affected by CSR announcements for more than two days. But for shorter event windows most of the securities have significant results. National banks and bank Alfalfa also post insignificant results for a shorter period as well. These large size banks are not derived by the investor perceptions but they are fundamentally strong. The last row provides the CAAR (0,1), which indicates the event day and after the event day. The last row shows a significant sign for all banks. Only bank Islami and Silk bank gained more than expected returns, all others have shown a negative sign, which means that these firms earn lower than expected. Negative returns of stocks with CSR announcements are in line with the findings of [Alexander & Buchholz \(1978\)](#); [Aupperle et al. \(1985\)](#); [Blackburn et al. \(1994\)](#); [Katsikides et al. \(2016\)](#) and [Pérez et al. \(2020\)](#). In long run, such as CAAR (-20, 20) and CAAR (0, 20), there is insignificant market reactions which are in line with [Fogler & Nutt \(1975\)](#); [C. Fombrun & Shanley \(1990\)](#); [McGuire et al. \(1988\)](#); [McWilliams & Siegel \(2000\)](#) and [Orlitzky \(2013\)](#).

Table 2: Cumulative Average Abnormal Returns (CAAR)

	Overall	BAFL	NBP	BIPL	FABL	JSBL	MCB	NIB	SCBPL	MEBL	Silk
CAAR (-2,2)	-0.013	-0.001	-0.002	0.047	-0.013	-0.026	-0.013	0.002	-0.038	-0.036	-0.126
S.E	0.004	0.01	0.003	0.074	0.015	0.012	0.003	0.029	0.012	0.007	0.045
t-test	-3.468	-0.059	-0.63	0.629	-0.851	-2.279	-4.964	0.053	-3.227	-5.08	-2.807
CAAR (-20,+20)	-0.001	-0.005	-0.004	0.085	0.006	0.01	-0.009	-0.024	-0.031	-0.012	0.033
S.E	0.032	0.077	0.024	0.358	0.089	0.102	0.044	0.206	0.177	0.052	0.306
t-test	-0.03	-0.065	-0.169	0.237	0.068	0.103	-0.202	-0.114	-0.176	-0.226	0.108
CAAR (-5,5)	-0.011	-0.02	0	-0.009	-0.041	-0.027	-0.011	0.008	-0.05	-0.021	0.025
S.E	0.008	0.018	0.005	0.107	0.022	0.024	0.01	0.073	0.039	0.021	0.1
t-test	-1.408	-1.066	-0.015	-0.086	-1.842	-1.161	-1.083	0.117	-1.283	-0.99	0.247
CAAR(-1,1)	-0.005	0.001	-0.003	0.057	0.025	-0.015	-0.01	0.035	-0.029	-0.019	-0.017
S.E	0.002	0.007	0.002	0.044	0.009	0.008	0.002	0.022	0.007	0.004	0.016
t-test	-2.772	0.21	-1.594	1.295	2.882	-1.943	-5.339	1.635	-4.012	-5.193	-1.033
CAAR (0,20)	0.009	-0.033	0.007	0.164	-0.059	0.044	-0.052	0.025	0.004	-0.028	0.247
S.E	0.015	0.036	0.012	0.212	0.05	0.04	0.028	0.121	0.099	0.019	0.158
t-test	0.577	-0.894	0.561	0.774	-1.19	1.109	-1.849	0.21	0.042	-1.438	1.571
CAAR (0,5)	-0.008	-0.011	-0.005	-0.012	-0.003	-0.026	-0.012	0.046	-0.001	-0.017	0.103
S.E	0.005	0.01	0.003	0.066	0.014	0.016	0.008	0.054	0.021	0.007	0.052
t-test	0.143	0.073	0.145	0.123	0.06	0.03	0.278	0.283	0.187	0.151	0.077
CAAR(0,2)	-0.01	-0.003	-0.008	0.018	0	-0.019	-0.013	0.037	-0.015	-0.019	-0.051
S.E	0.003	0.006	0.002	0.053	0.01	0.009	0.002	0.021	0.008	0.004	0.024
t-test	-3.453	-0.482	-3.682	0.332	0.034	-2.177	-5.608	1.744	-1.904	-5.188	-2.145
CAAR (0, 1)	-0.002	-0.008	-0.005	0.09	0.02	-0.005	-0.009	0.066	-0.021	-0.013	0.022
S.E	0.001	0.002	0.001	0.036	0.006	0.005	0.002	0.015	0.006	0.003	0.005
t-test	-1.918	-3.504	-3.603	2.496	3.059	-0.896	-5.481	4.47	-3.449	-5.142	4.228

5 Conclusion

As a result of the above discussion, it is clear that there is no long-term impact of CSR announcements and stock returns and that is why there is less importance given to corporate social responsibility in Pakistani banks. As the literature indicates that for a longer and shorter period of time investors are of two types one are risk-takers, who do not come to invest for the longer period and the other types are risk-averse people, who prefer fixed dividends. As for this paper, the hypothesis is accepted that there is a significant relationship between banks' market returns and banks' CSR activities. The impact of CSR activities is not long-lasting. Pakistani firms are different from other emerging economies. Most of the studies in other countries see the fundamental effects posted by corporate social responsibility as it has strong significance and regulatory importance. In Pakistan, the scenario is opposite it for the past decade or so. Now things are changing at the regulatory level and also there is awareness in the public, private, and family-owned business about CSR and its significance. In the contemporary scenario, the results indicate that for a shorter event window CSR has its significance for investors in the market but for the longer period CSR and stock market relationship is absurd.

5.1 Limitations of Research

Only firms with press releases with proper dates are selected considering need of the study. Rest of the firms with the incomplete CSR announcements are dropped from the study. Banking sector is taken for this research study. Generalization of results from this study onto other sectors would not be a rational approach. Moreover, non supporting regulatory structure and generalization of results onto other economies does not seem sensible either.

References

- Akpinar, A., Jiang, Y., Gómez-Mejía, L. R., Berrone, P., & Walls, J. L. (2008). Strategic use of csr as a signal for good management. *Available at SSRN 1134505*.
- Alexander, G. J., & Buchholz, R. A. (1978). Corporate social responsibility and stock market performance. *Academy of Management journal*, 21(3), 479–486.
- Aupperle, K. E., Carroll, A. B., & Hatfield, J. D. (1985). An empirical examination of the relationship between corporate social responsibility and profitability. *Academy of management Journal*, 28(2), 446–463.
- Blackburn, V. L., Doran, M., & Shrader, C. B. (1994). Investigating the dimensions of social responsibility and the consequences for corporate financial performance. *Journal of Managerial Issues*, 195–212.
- Bowman, E. H., & Haire, M. (1975). A strategic posture toward corporate social responsibility. *California management review*, 18(2), 49–58.
- Bragdon, J. H., & Marlin, J. (1972). Is pollution profitable. *Risk management*, 19(4), 9–18.
- Brammer, S., & Millington, A. (2008). Does it pay to be different? an analysis of the relationship between corporate social and financial performance. *Strategic management journal*, 29(12), 1325–1343.
- Cochran, P. L., & Wood, R. A. (1984). Corporate social responsibility and financial performance. *Academy of management Journal*, 27(1), 42–56.
- Escamilla-Solano, S., Fernández-Portillo, A., Paule-Vianez, J., & Plaza-Casado, P. (2019). Effect of the disclosure of corporate social responsibility on business profitability. a dimensional analysis in the spanish stock market. *Sustainability*, 11(23), 6732.
- Flammer, C. (2013). Corporate social responsibility and shareholder reaction: The environmental awareness of investors. *Academy of Management Journal*, 56(3), 758–781.
- Fogler, H. R., & Nutt, F. (1975). A note on social responsibility and stock valuation. *Academy of Management Journal*, 18(1), 155–160.
- Fombrun, C. (1996). Reputation: Realizing value from the corporate image. *Harvard Business School Press, Cambridge, MA*.
- Fombrun, C., & Shanley, M. (1990). What's in a name? reputation building and corporate strategy. *Academy of management Journal*, 33(2), 233–258.

- Fombrun, C. J., Gardberg, N. A., & Barnett, M. L. (2000). Opportunity platforms and safety nets: Corporate citizenship and reputational risk. *Business and society review*, 105(1), 85–106.
- Friedman, M. (2007). The social responsibility of business is to increase its profits. In *Corporate ethics and corporate governance* (pp. 173–178). Springer.
- Greening, D. W., & Turban, D. B. (2000). Corporate social performance as a competitive advantage in attracting a quality workforce. *Business & society*, 39(3), 254–280.
- Hao, D. Y., Qi, G. Y., & Wang, J. (2018). Corporate social responsibility, internal controls, and stock price crash risk: The chinese stock market. *Sustainability*, 10(5), 2–22.
- Huang, Y.-S., & Walkling, R. A. (1987). Target abnormal returns associated with acquisition announcements: Payment, acquisition form, and managerial resistance. *Journal of financial economics*, 19(2), 329–349.
- Jensen, M. C. (2002). Value maximization, stakeholder theory, and the corporate objective function. *Business ethics quarterly*, 235–256.
- Katsikides, S., Markoulis, S., & Papaminas, M. (2016). Corporate social responsibility and stock market performance: An event study approach. *International Journal of Engineering and Advanced Technology*, 6(2), 1–8.
- McGuire, J. B., Sundgren, A., & Schneeweis, T. (1988). Corporate social responsibility and firm financial performance. *Academy of management Journal*, 31(4), 854–872.
- McWilliams, A., & Siegel, D. (1997). The role of money managers in assessing corporate social responsibility research. *The Journal of Investing*, 6(4), 98–107.
- McWilliams, A., & Siegel, D. (2000). Corporate social responsibility and financial performance: correlation or misspecification? *Strategic management journal*, 21(5), 603–609.
- McWilliams, A., Siegel, D., & Teoh, S. H. (1999). Issues in the use of the event study methodology: A critical analysis of corporate social responsibility studies. *Organizational Research Methods*, 2(4), 340–365.
- Moskowitz, M. (1972). Choosing socially responsible stocks. *Business and Society Review*, 1(1), 71–75.
- Odeh, M. H., Alshannag, F. M., Eneizan, B., Alkhawaldeh, A. M., & Makhamreh, H. Z. (2020). Analysis of the relationship between corporate social responsibility (csr) spending and market stock price among jordanian service firms. *Cogent Business & Management*, 7(1), 1746732.
- Orlitzky, M. (2013). Corporate social responsibility, noise, and stock market volatility. *Academy of Management Perspectives*, 27(3), 238–254.
- Pérez, A., López-Gutiérrez, C., et al. (2020). Market reactions to csr news in different industries. *Corporate Communications: An International Journal*, 25(2), 243–261.
- Spicer, B. H. (1978). Investors, corporate social performance and information disclosure: An empirical study. *Accounting review*, 53(1), 94–111.

- Turban, D. B., & Greening, D. W. (1997). Corporate social performance and organizational attractiveness to prospective employees. *Academy of management journal*, 40(3), 658–672.
- Waddock, S. A., & Graves, S. B. (1997). The corporate social performance–financial performance link. *Strategic management journal*, 18(4), 303–319.
- Waheed, A. (2005). Corporate social responsibility in pakistan and a strategy for implementation. *Securities and Exchange Commission of Pakistan*.
- Wang, M., Qiu, C., & Kong, D. (2011). Corporate social responsibility, investor behaviors, and stock market returns: Evidence from a natural experiment in china. *Journal of Business Ethics*, 101(1), 127–141.
- Wong, A., Long, F., & Elankumaran, S. (2010). Business students' perception of corporate social responsibility: the united states, china, and india. *Corporate Social Responsibility and Environmental Management*, 17(5), 299–310.

Appendix-A

Table A: Average Abnormal Returns (AAR)

	BAHL	NBP	BIPL	FABL	JSBL	MCB	NIB	SCBPL	MEBL	Silk
-20	0.004	0.003	-0.011	-0.007	-0.015	0.003	0.005	0.001	-0.001	0.008
-19	0.001	0.003	0.012	-0.01	-0.005	0.004	-0.011	-0.005	0.018	0.076
-18	-0.003	-0.001	-0.049	-0.002	0.001	-0.002	-0.006	-0.003	0.002	-0.036
-17	0.003	0.006	0.032	0.002	0.002	0.005	0.031	-0.002	-0.007	0.089
-16	-0.005	-0.004	0.085	0.006	0.01	-0.009	-0.024	-0.031	-0.012	0.033
-15	0.003	0.001	-0.059	-0.017	0.039	0.012	0	-0.035	0.012	0.011
-14	0.002	-0.003	0.028	-0.007	0.048	0.002	0.01	0.002	-0.006	0.066
-13	-0.005	0.005	0.025	0	-0.003	-0.001	-0.01	-0.002	-0.004	-0.007
-12	0.011	0	-0.017	-0.012	-0.018	0.002	0.05	0.033	-0.005	-0.049
-11	-0.001	-0.007	-0.025	-0.02	-0.019	-0.004	-0.03	-0.036	0.001	0.034
-10	0.001	0.001	0.034	-0.036	-0.012	-0.004	-0.04	0.011	-0.01	0
-9	-0.003	-0.001	0.004	0.001	0.03	0	-0.007	0.013	-0.002	0.011
-8	-0.001	0.006	-0.052	-0.004	-0.025	-0.007	0.024	-0.065	0.004	-0.01
-7	-0.005	0	0.026	-0.02	-0.005	0.001	-0.014	0.021	-0.002	0.045
-6	0.003	0.005	0.024	0.014	-0.004	0.007	0.031	0.007	0.003	0
-5	-0.006	0.002	0.03	-0.01	-0.007	-0.001	0.006	-0.044	0.007	-0.009
-4	-0.006	-0.001	-0.032	-0.011	0	0.004	-0.026	0.012	-0.016	-0.049
-3	0.001	-0.001	-0.024	-0.003	0.013	-0.002	0.019	0.004	0.023	0.054
-2	-0.007	0.004	0.061	-0.018	0.003	0	-0.005	-0.015	-0.012	-0.036
-1	0.01	0.002	-0.032	0.005	-0.011	0	-0.031	-0.008	-0.005	-0.039
0	-0.002	-0.001	-0.035	0.017	-0.014	-0.003	0.025	0.003	-0.002	-0.001
1	-0.006	-0.004	0.125	0.003	0.009	-0.006	0.041	-0.024	-0.011	0.023
2	0.005	-0.003	-0.072	-0.019	-0.014	-0.003	-0.029	0.006	-0.006	-0.073
3	-0.006	0.001	0.011	-0.005	0.01	-0.013	0.041	0.016	0.003	0.093
4	0.004	0.003	-0.01	0.01	-0.021	0.004	0.036	0.02	0.004	0.034
5	-0.006	-0.002	-0.032	-0.008	0.004	0.01	-0.068	-0.021	-0.005	0.027
6	0.003	0.004	-0.031	0.012	0.013	-0.001	0.015	-0.012	0.001	0.008
7	-0.004	0.004	-0.057	0.003	0.009	-0.003	0.052	0.028	0.003	-0.015
8	0.003	0.001	-0.063	-0.001	-0.001	-0.008	-0.056	0.036	-0.002	-0.062
9	-0.004	-0.005	0.081	-0.028	0.01	-0.003	0.005	0.002	0.013	-0.05
10	0.001	0.003	0.048	-0.026	0.026	-0.002	0.017	-0.003	0	0.028
11	-0.004	0.003	0.034	-0.005	0.001	-0.008	-0.008	-0.047	0	0.014
12	-0.006	-0.005	-0.074	0.013	-0.002	-0.001	0.022	0.025	0	0.004
13	-0.001	0.002	0.051	-0.026	0.007	0.013	-0.03	-0.043	-0.007	0.106
14	0.001	0.003	0.01	-0.002	0.003	0.009	-0.027	0.036	0.001	0.027
15	0.004	0.005	-0.012	0.006	-0.003	-0.005	0.016	-0.033	-0.002	-0.006
16	-0.008	-0.001	-0.006	0.004	-0.016	-0.002	-0.008	-0.004	-0.007	-0.004
17	-0.004	0	0.028	-0.001	0.009	0.005	-0.014	-0.013	-0.007	0.016
18	0.004	-0.003	0.003	-0.002	-0.001	-0.028	0.004	-0.019	-0.001	0.011
19	-0.006	0	0.054	0.009	0.009	0	0.01	0.05	0.004	0.102
20	-0.001	0.003	0.111	-0.012	0.005	-0.005	-0.018	0.001	-0.006	-0.034