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Article

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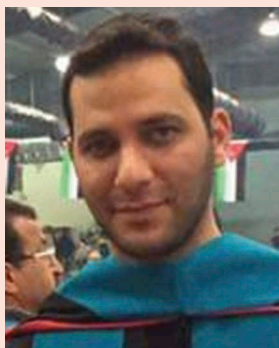
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BANKING & FINANCE | RESEARCH ARTICLE

Analysis of the relationship between corporate social responsibility (CSR) spending and market stock price among Jordanian service firms

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Abstract: In this study, the relationship of corporate social responsibility (CSR) spending and Market Stock Price was analyzed. The study sample comprised of 102 services firms listed on the Amman Stock Exchange (ASE) for the years 2010 to 2017. In particular, CSR spending reflects the actual CSR activities monetary contributions that are mandated to be disclosed in the firm's income statement. This study adopted the Generalized Method of Moment (GMM) to analyze the CSR spending—Market Stock Price relationship. The control variables included firm size, leverage and ownership. Based on the findings, no significant relationship exists between CSR spending and market stock price (MSP) in any direction. Added to this, control variables had no effect on MSP. However, the findings showed a significant positive effect of firm size on CSR spending and a negative effect of leverage on CSR spending, with no significant effect of ownership on the same. This study has several implications for the enhancement of the information and understanding of the firms' Market Stock Price as it shed light on the CSR spending—Market Stock Price relationship. Moreover, the study findings contribute to literature concerning CSR practices in the context of developing nations.



Bilal Eneizan

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PUBLIC INTEREST STATEMENT

Corporate Social Responsibility (CSR) considered as a hot topic among the researchers. Nowadays, the application of CSR required by firms to enhance their relationship with society. This study adopted the extensively utilized theories namely, Slack Resource Theory and Good Management Theory to explore the relationship between CSR spending and Market Stock Price. The main aim of this paper is to analysis the relationship between CSR Spending and Market Stock Price among Jordanian Service Firms. This study adopted the Generalized Method of Moment (GMM) to analyze the CSR spending—Market Stock Price relationship. The control variables included firm size, leverage and ownership. The main findings indicated that no significant relationship exists between CSR spending and market stock price (MSP) in any direction. Added to this, control variables had no effect on MSP. However, the findings showed a significant positive effect of firm size on CSR spending and a negative effect of leverage on CSR spending, with no significant effect of ownership on the same.

Subjects: Economics; Finance; Business, Management and Accounting

Keywords: corporate social responsibility spending; market-based performance; market stock price; amman stock exchange

1. Introduction

In the present times, corporate social responsibility (CSR) has transformed into a top significant issue among companies in various countries (Alshannag et al., 2016). This is compounded by the fact that in present businesses, activities are inseparable from issues of ethical and social responsibilities (Aymen et al., 2019). In this regard, CSR has devolved in importance and it is deemed to be more relevant to firms in all countries more than ever before. Added to this, CSR is related to factors including employees, ethics, natural surroundings, and society in the formation and composition of the responsible behavior of the firm that can enhance its reputation and along with it, improve the investors, customers, shareholders and stakeholders' confidence, and promote the ability, effort and dedication of the employees (Jitaree, 2015).

Notably, CSR has garnered a considerable controversial debate in academic studies, with the debates underlying the importance of CSR in both country types (developing and developed). Nevertheless, several doubts remain concerning the level of the firms' contribution in developing nations to their social responsibilities. Also, developed nations governments play a key part in motivating the companies' exercise of CSR activities by facilitating their goal achievement and mandating their adherence to CSR activities through legislated laws. Evidently, these procedures encourage the firms to take part and adopt different CSR activities like community investment, philanthropy and employee relationships, and motivated the employees to provide good services to the customers and society (Abdelqader Alsakarneh et al., 2018; AL-Abrow et al., 2019; Alsakarneh et al., 2019). However, in the context of developing nations, civil community and stakeholders are the ones that boost the execution of CSR activities among firms, as a result of which, majority of the firms refuse to react to their urging because of low awareness. The belief is such that CSR activities are costly and as such, it goes against their aim of maximizing the wealth of shareholders (Odeh et al., 2019). Low CSR activities participation may also be attributed to the weak and ineffective application of the existing societal laws (Aras et al., 2010; Guthrie & Parker, 1989; Koo, 2016).

A great proportion of literature in this field focused on the CSR spending-financial performance relationship including Alshannag et al. (2017), Al-Shwiyat and ALRjoub (2013), Aras et al. (2010), Bagh et al. (2017), Fernandez (2016), Fernita et al. (2014), Fiori et al. (2007), Jitaree (2015), Karlsson et al. (2015), Koo (2016), Lins et al. (2017), Pava and Krausz (1996), and Weshah et al. (2012)—all of which reported mixed results. In other words, researchers have yet to reach a consensus on the relationship between CSR and financial performance, with some studies reporting a positive relationship, others a negative one, and some others reporting the lack of significant relationship between them.

To begin with, in Ehsan and Kaleem (2012) study, the authors investigated the CSR-CFP relationship among Pakistani manufacturing companies for the years 2006 to 2009. They adopted the CSR expenditure dimensions of donations and employee welfare funds (dependent variables) for CSR practices and four financial indicators (independent variables) for CFP (e.g., ROA, EPS, firm growth and ROE). The authors also made use of control variables including size, leverage, age and firms risk measured by beta (β), after which they adopted the generalized least square random effect regression to examine the variables relationship. They found ROA, ROE and EPS to have a positive influence over CSR expenditure, and firm growth to have a negative influence over the same. Moreover, the control variables effects on CSR varied—risk had a positive effect on CSR, leverage had a negative effect on CSR, whereas firm size had no significant effect on the same.

Moving on to another study, Koo (2016) explored the effect of CSR performance on corporate financial performance involving 3000 US public traded companies for the years from 1991 to 2014. The author measured CSR performance by CSR rating, using data obtained from KLD database, while CFP was measured using five financial indicators (ROA, ROS, debt ratio, Tobin's Q and market book ratio). The authors considered three control variables, namely size of assets, size of sales and industry and the findings showed ROA and Tobin's Q to positive affect CSR performance. As a control variable total assets affected CSR and the author highlighted the heightened relationship of service and manufacturing industries with CSR performance.

Prior results indicated findings of CSR-financial performance relationship that are inconsistent and such inconsistency may be attributed to small sample size, short study period and varying methods utilized for the measurement of CSR.

Added to the above, majority of CSR-related studies mainly concerned themselves with developed nations, with the developing ones left behind, particularly Jordan. The findings are also inconsistent, shrouding the relationship between CSR and financial performance in total ambiguity and coupled with the relationship's complexity, controversy, it is no surprise that inconclusive findings were found. This necessitates further studies to be conducted in the area as recommended by Weshah et al. (2012), Jitaree (2015) and Alshannag et al. (2017). Moreover, the rationale to choose service sector is the intangibility of output, relationships with customer and other stakeholders (Lee et al., 2013). Thus, in the present study, the author conducts an analysis of the CSR spending-financial performance relationship among service firms in Jordan listed on ASE for the period from 2010 to 2017. The study adopted stock prices for the financial performance measurement. The upcoming sections include hypotheses development on the basis of existing literature. Then, the methodology section is presented that includes study population and data source, model development, variable measurement, GMM estimation. The results section provides the descriptive and inferential statistics. The discussion section discusses the finding of the study and then the conclusion part concludes the findings of the study.

2. Literature review and hypotheses development

This study adopted the extensively utilized theories, namely Slack Resource Theory and Good Management Theory to explore the relationship between CSR spending and financial performance. In particular, Good Management Theory posits that firms should engage in CSR to maximize their financial performance levels, with CSR being emphasized. The theory further posits that CSR possesses many advantages such as enhancement of different stakeholders' satisfaction, enhancement of firms' reputation, enhancement of motivations among employees, mitigation of advertising costs and enhancement of trust among investors. In other words, CSR can assist in the development of resources, management and capabilities as reflected in the firm structure, human resource and technology. The spread of mobile and Internet-based technologies has led to fundamental changes in how firms interact with their customers and providing fast service for them (Eneizan et al., 2019; Rawwasha et al., 2020). The CSR practices benefits can bring about efficient assets and resource management, as a result of which, better corporate financial performance is achieved (Koo, 2016). On the other hand, Slack Resource Theory posits that CFP takes first priority and that a firm should have a good level of financial performance in order to engage successfully in CSR because CSR calls for the investment of funds (Dean, 1999; Waddock & Graves, 1997).

Additionally, there is a total of 127 studies reviewed by Margolis and Walsh (2003) that were dedicated to the exploration of the CSR-CFP relationship, from which 22 used CSR as a dependent variable that is affected by CFP, while the rest of the studies considered CSR as an independent variable that affects CFP. From the total studies, only four examined the bi-directional relationship but the empirical findings remained inconclusive (some found a positive relationship, others a negative relationship, while some others no relationship).

Firms use several methods for CSR practices measurement with the four major ones highlighted by Alshannag et al. (2017) and Pradhan and Nibedita (2019) as reputation indices and databases, content analysis, actual CSR activities spending and survey. In particular, reputation indices and databases categorize firms based on the direction of CSR achievement (e.g., Fortune Reputation Index, Kinder, Lydenberg Domini (KLD)). Meanwhile, content analysis is suitable for corporate publications, actual spending is reflected as the paid amount by the firm on CSR activities in the income statement and finally, survey is conducted using questionnaire.

The CSR-financial performance was examined by Preston and O'Bannon (1997) and Waddock and Graves (1997) in terms of both directions and they found a positive relationship. In the former study, the authors aimed to understand the CSR-financial performance relationship in both directions and the directions of causality, which they found to be from financial performance to CSR, supporting the Slack Resource Theory.

Other studies in literature measured CSR by adopting reputation index and database (KLD) (e.g., Fernandez, 2016; Koo, 2016; Lins et al., 2017), while some others made use of content analysis for CSR measurement and these included Ahamed et al. (2014). Aras et al. (2010), Bayoud (2012) and Hassan et al. (2012). Also, the survey questionnaire was adopted by Al-Moumany et al. (2014) and Edmans (2012) for the measurement of CSR's environmental, social and economic dimensions. Actual spending on CSR activities was used by Alshannag et al. (2017) and Weshah et al. (2012) for the same purpose.

Moving on to financial performance, studies in this caliber also used different measurements; to begin with McPeak and Bi (2012), Fernandez (2016), Koo (2016), and Alshannag et al. (2017) employed accounting indicators and market indicators. Other authors like Choi et al. (2010), Weshah et al. (2012), Al-Shwiyat and ALRjoub (2013) and Ahamed et al. (2014) only used accounting indicators, while some others made use of only market indicators in their estimation of financial performance (e.g., Alexander & Buchholz, 1978; Edmans, 2012; Vance, 1975).

With regards to the results of studies concerning the relationship between CSR and financial performance, some studies reported a positive relationship and these included Aras et al. (2010), Weshah et al. (2012), Al-Shwiyat and ALRjoub (2013), Ducassy (2013), Ahamed et al. (2014), Jitaree (2015), Fernandez (2016), Koo (2016), Bagh et al. (2017) and Lins et al. (2017), from which financial performance was deemed as an independent variable (e.g., Al-Shwiyat & ALRjoub, 2013; Aras et al., 2010; Koo, 2016). Contrastingly, other studies considered CSR as the independent variable, while financial performance was the dependent one (e.g., Ahamed et al., 2014; Karlsson et al., 2015; Lins et al., 2017; McPeak & Bi, 2012; Weshah et al., 2012). As for the direction of causality, some studies examined the relationship on both directions like Waddock and Graves (1997), Palmer (2012), Santoso and Feliana (2014), Jitaree (2015) and Fernandez (2016), with mixed results.

Saleh et al. (2011), Palmer (2012), Ahamed et al. (2014) and Lins et al. (2017) supported a positive CSR-CFP relationship, Lopez et al. (2007), Iqbal et al. (2012) and Karlsson et al. (2015), supported a negative relationship, whereas McWilliams and Siegel (2000), Fauzi et al. (2007) and Fernita et al. (2014) found no significant relationship between the two variables. A detailed review of studies is carried out in the next paragraphs.

To begin with, Karlsson et al. (2015) and Gras-Gil et al. (2016) revealed a negative CSR-financial performance relationship. The former adopted ROA and market stock price for financial performance measurement, and firm size and industry as the moderating variables. The authors developed CSR index, using content analysis for the CSR disclosure measurement based on two dimensions, namely human rights and environmental dimensions. The latter made use of earnings management for financial performance measurement and the Spanish reputation index, listing

firms categorized based on their five CSR dimensions practices. The study also considered the control variables of firm size, leverage and return on assets.

For studies that found no relationship between the two variables (CSR and financial performance) (e.g., Ducassy, 2013; Fernita et al., 2014; Nelling & Webb, 2009), some used accounting and market indicators together (Ducassy, 2013; Fernita et al., 2014) for the financial performance estimation, while others only made use of accounting indicators (Fauzi et al., 2007).

In the same line of study, Mahbuba and Farzana (2013) conducted a study to shed light on the relationship between CSR and financial performance in the context of Dutch Bangla Bank Ltd. (DBBL) that had the highest number of CSR activities in the Bengali banking sector. The authors used annual reports of DBBL for the years from 2002 to 2011 and CSR expenditure for CSR activities measurement, with net profit as financial performance measurement. The authors performed the Ordinary Least Square (OLS) regression model of SPSS for the analysis of the relationship between the two constructs and found a positive and significant relationship, particularly between CSR expenditure and net profit. This is indicative of the fact that with increased CSR activities spending, companies' financial performance will also increase.

Meanwhile, the effect of CSR spending on financial performance in the Jordanian banking sector case was examined by Weshah et al. (2012), with CSR spending as the independent variable, which was measured using the ratio of the amount of donation disclosed to interest revenue and the ratio of training expenses to interest revenue. Financial performance was considered as the dependent variable measured using ROA, along which, control variables of firm size and firm risk were included, estimated by the ratio of total liabilities to total assets, along with advertising, estimated by the expense costs of advertising to interest revenue. Data were gathered from the annual reports of the banks listed on the Amman Stock Exchange for the year 2011. Data analysis was conducted using simple regression and the authors found CSR, size, risk and advertising to have a positive impact on CFP.

The CSR performance-financial performance relationship was also studied by Bagh et al. (2017), involving 30 Pakistani commercial banks listed in the Stock Exchange, and sampled on the basis of market capitalization from 2006 to 2015. The authors obtained data from the banks' annual reports and considered CSR spending on different related activities like donation, education and training and health social welfare for the measurement of CSR performance. The authors also used three financial indicators including ROE, ROA and EPS for the financial performance measurement. The study then conducted a pooled regression analysis to examine the CSR spending on financial performance and found a positive and significant effect of the former on the latter, specifically on ROA, ROE and EPS.

It is clear that the reviewed literature shows that prior studies conducted an analysis of the effect of CSR on financial performance or the other way around, with only a few studies analyzing both directions simultaneously. Majority of prior studies used accounting indicators like ROE and ROA for the financial performance measurement. In the present one, market indicators are used instead. While several prior studies used objective CSR disclosure for CSR activities measurement, the present one uses CSR spending.

On the basis of the Good Management Theory and Slack Resource Theory, this study analyzes the relationship between CSR spending and financial performance in both directions and as such, the following hypotheses are proposed for testing;

H1a: *There is a positive and significant impact of CSR spending on market stock price.*

H1b: *There is a positive and significant impact of market stock price on CSR spending.*

3. Research methodology

3.1. Population and data source

The present study conducts an analysis of the CSR spending–Market Stock Price relationship in both directions for firms in Jordan listed on ASE for the years from 2010–2017. Data are thus secondary data that were obtained from the firms' annual reports as annual reports are the most accessible source of information for firms listed in the stock exchange (Alshannag et al., 2017; Arif & Syed, 2015). Accordingly, the annual reports of firms were accessed from the ASE website because of their easy availability brought about by the Financial Securities Commission of Jordan's mandate of listed firms to apply for corporate governance requirements from the year 2010. This study found it suitable to gather data until 2014 because the annual reports from that year are the latest annual reports of the firms.

The study sample comprised of 102 listed service firms from a total of 253 firms listed on Amman Stock Exchange (ASE). Accordingly, 102 out of 114 listed service firms consisting of 816 annual reports were taken into consideration, constituting 41% of the total listed ASE firms. There are some reports missing because of halt in trading or delisting during the study period.

3.2. Model development

This study used the Generalized Method of Moment (GMM) to analyze the relationship between CSR spending and Market Stock Price.

Both hypotheses 1 and 2 were tested using model 1 and 2 in the following ways;

Where CSR spending is the independent variable and market stock price is the dependent variable (H1a), the model equation is;

$$SP_{it} = \alpha + \beta_1 SP_{it-1} + \beta_2 CSRS_{it} + \beta_3 SIZE_{it} + \beta_4 LEV_{it} + \beta_5 OWNERSHIP_{it} + \sum_{t=2011} YEAR_t + ui + \epsilon_{it} \quad (1)$$

where CSR spending is the dependent variable and the market stock price is the independent variable, the model equation is;

$$CSRS_{it} = \alpha + \beta_1 CSRS_{it-1} + \beta_2 SP_{it} + \beta_3 SIZE_{it} + \beta_4 LEV_{it} + \beta_5 OWNERSHIP_{it} + \sum_{t=2011} YEAR_t + ui + \epsilon_{it} \quad (2)$$

From the above regression models, MSP is the market stock prices for the financial performance measurement and CSR is the activities related to CSR.¹ The control variables include size, leverage and ownership, and intercept (β) represents the coefficient of variables, $it-1$ represents the value of the variable in the previous year, t represents time from 2010 to 2017, i is 102 firms (from 1 to 102), and (ϵ) represents error term.

3.3. Dependent and independent variables

In the first model (Model 1), CSR spending is considered as the independent variable and in the second one (Model 2), it is the dependent variable—in both models, it refers to the actual spending on CSR activities (e.g., donations, medical health expense, social security expense and training courses for workers). Conversely, market stock prices are considered as the dependent variable in the first model (Model 1) and the independent one in the second model (Model 2) and it represents the top market indicators for measuring financial performance. Average stock market price was using during the year for the entire sample firms.

3.4. Control variables

According to Waddock and Graves (1997) and Aras et al. (2010), other variables may have an impact on CSR spending and financial performance relationship and they are the control variables, in which case, this study includes firm size, leverage and ownership. The variables are detailed in the next sub-sections.

3.4.1. Firm size

Firm size is a control variable that may have an effect on the activities of the company as it reflects the growth of the firm (Matar et al., 2018; Matar & Eneizan, 2018). In this regard, a company that possesses more assets is more able to adopt CSR activities, compared to smaller firms that do not possess the same amount of assets. In other words, smaller-sized firms have a lower likelihood to take part in CSR initiatives (Udayasankar, 2008).

$$\text{Firm size} = \text{Log}(\text{Total Assets}) \quad (3)$$

3.4.2. Leverage

Financial leverage refers to the firm risks and in this study, long-term debt ratio, an instrument extensively utilized for the measurement of financial leverage of a firm was used. In relation to this, firms having low debt level are superior to those having a high debt level as the latter have to pay extra interest expenses. It is thus possible that this may affect the profitability level. This may also lead to increased pressure from the company's stakeholders (Brammer et al., 2006). Stated clearly, low-leverage firms are more likely to obtain funds to use in CSR activities.

$$\text{Leverage} = \frac{\text{total long term debt}}{\text{total assets}} \quad (4)$$

3.4.3. Ownership

Ownership is another control variable considered in the present study and it is proposed to have an impact on CSR spending and Market Stock Price relationship. It is calculated by using the equation;

$$\text{Ownership} = \frac{\text{number of share owned by local investors}}{\text{total outstanding share}} \quad (5)$$

3.5. Dynamic panel Generalized Method of Moment (GMM)

The Generalized Method of Moment (GMM), a statistical analysis method, was used in this study to analyze the CSR spending-Market Stock Price relationship. The method is deemed to be a dynamic panel approach proposed and developed by Blundell and Bond (1998) and Arellano and Bover (1995) (Albawwat et al., 2015). The method focuses on the effect of the dependent variable value in the previous year on the value of the same variable in the present year. The method uses the short period but with significant numbers of sample. GMM has to level equations; first difference—where each equation uses instrumental variables to remove correlation among explanatory variables and error (Albawwat et al., 2015).

GMM analysis offers several benefits when treating a short study period, heterogeneity, auto-correlation, different variation and explanatory variables (endogenous and pre-determined). This includes the enhanced efficiency of estimates through the method's use. Nevertheless, a good instrument is needed to guarantee that GMM analysis successfully generates consistent, efficient and unbiased outcomes. Therefore, the Hansen/Sargan test identifies the restrictions, AR(2), along with the added benefit of three appropriate diagnostic tests.

More specifically, the Hansen/Sargan test identifies the restrictions and conducts a thorough scrutiny of the overall validity of the instrument by examining the moment condition sample analogue utilized in the process of estimation. The instrument is deemed to be valid and the model has correct specifications if the moment condition holds. AR(2) is used to conduct residuals test to make sure that the transformed error terms have no serial correlation. The final test is the Hansen test difference which is used to examine the extra moment condition validity on the GMM system. The test measures the difference between the Hansen statistics generated by the GMM

and the GMM difference. With the failure of rejection of the null hypothesis, the estimated model is said to be supported (Albawwat et al., 2015).

4. Results of analysis

Under this section, the descriptive analysis and the GMM analysis results of this study are presented.

4.1. Results of descriptive analysis

The descriptive statistical analysis results of all the variables (CSRS, SP, firm size, leverage and ownership) in the regression models for service listed firms on ASE for the years from 2010–2017 are presented in Table 1.

On the basis of the data tabulated in the above table, the overall mean obtained for CSR spending among service listed companies in ASE for the eight examined years was 763,818, and the standard deviation is 3,560,188. Generally, the CSR spending of Jordanian service firms for the period examined is low and thus, this may have had a significant role in affecting different stakeholders. Table 1 also shows that the service listed companies differ significant in their financial performance that is evidenced by the standard deviation of MSP.

From the table, it is evident that the total assets for listed service proxy for the firm size in ASE in the examined period was 92,693,515 JD which was taken as log, the log value was 7.96 with a standard deviation of 60,400,000 JD, the log value was 7.7810 with the latter explaining the differences between the size of the listed firms. The mean of leverage obtained was 0.34, which indicates that 34% of the total assets of the Jordanian listed services firms are financed through long-term debt. Ownership, on the other hand, obtained a mean of 0.81, which shows that most of the Jordanian listed service firms were listed on ASE by Jordanian citizens.

4.2. Unit root test (Stationarity)

Eviews provides convenient tools for computing panel unit root tests. It may be computed by one or more of the following tests: Levin et al. (2002), Breitung and Das (2005) and Im et al. (2003), Fisher-type tests using ADF and PP tests, Maddala and Wu (1999), Choi (2001) and Hadri (2000). In the current analysis, Levin et al. (2002) test was applied and the results are present in the table above. The above results for unit root show that all the series of the variables are stationary and there is no unit root in the series. Hence, it can be said that the issue of non-stationarity does not exist in any of the variable and all the variables are stationary at the level as we can see the p-values are significant. Hence, rejecting the null hypothesis of unit root.

4.3. Results of GMM Analysis

The GMM test results are tabulated in Table 2, which primarily shows the analysis results of the CSRS-SP relationship, where the former is the independent variable and the latter is the dependent one. The results showed no significant effects from CSRS and control variables on the market stock price.

Table 1. Descriptive Statistics Analysis (All values are in Jordanian Dinar)

Category	Mean	Median	St. Deviation	Skewness	Kurtosis	p-value for Jarque-bera
CSRS	763,818	88,350	3,560,188	3.12	7.22	0.000
MSP (JD)	3.62	1.9	6.72	2.12	5.37	0.000
Size log (JD)	7.9670	7.4195	7.7810	3.19	6.82	0.000
Leverage %	0.34	0.30	0.19	4.15	5.89	0.000
Ownership %	0.81	0.85	0.34	4.71	11.54	0.000

Sources: Jordanian Firms Listed on Amman Stock Exchange ASE (N = 102).

Table 2. Unit Root Test (Stationarity)

Variables	At Level	
	Statistic	Prob.
CSRS	-23.1339	0.00
MSP	-24.1039	0.00
Size (log of Assets)	-22.9071	0.00
Leverage	-23.5131	0.00
Ownership	-24.2202	0.00

Both specification tests, AR(2) that tested the serial correlation and Hansen test that tested the instrument validity were valid. Table 3 indicates that the p-values for AR(2) and Hansen test exceeded 0.10, which supports a significant statistical analysis. In other words, the empirical model is correctly specified with no serial correlation (autocorrelation) among the residuals and the instruments (moments conditions) utilized in the models were deemed as valid.

According to the estimated results of one-step system GMM in Table 3, the factor of time positively affects the MSP trend at the significant level of 1%, which indicates that the current MSP value is expected to rise by 94% in comparison to that of the previous year. In addition, the results illustrate no significant effect of CSR on market MSP. Also, there is no significant impact of control variables (firm size, leverage and ownership) on MSP.

More specifically, CSR has no effect on spending of market MSP, which shows that any CSR spending change will not impact MSP and thus, the alternative hypothesis stating that “there is a positive effect of CSR spending on MSP is rejected.

Furthermore, the system GMM test was performed to analyze the relationship between CSRS and MSP, with the former as the dependent and the latter as the independent variable. Table 4 shows that the variables rejected different significance levels of 1% and 5%, indicating no significant effects.

On the whole, both specification tests AR(2) and Hansen test results are valid in that the p-values of the former and the result of the latter test exceeded 0.10, indicating statistical significance. The

Table 3. Dynamic Panel-Data Estimation: One-Step System GMM for MSP

Variables	Model 1		
	Coefficients	Standard Error	P-Value
MSP	0.9401935***	0.0647576	0.000
CSRS	0.0204822	0.0977935	0.834
Control Variables			
Size	0.1547125	0.3870404	0.834
Lev	-0.2994086	0.3463428	0.387
Ownership	0.7591105	0.9347929	0.417
Number of instruments	22		
Number of observations	408		
Number of groups	102		
AR(2)-p value	0.236		
Hansen/Sargan test—p value	0.667		

Note (1): *, **, *** denote 10%, 5% and 1% significance levels, respectively.

Table 4. Dynamic Panel-Data Estimation: One-Step System GMM for CSR

	Model 2		
Variables	Coefficients	Standard Error	P-Value
CSRS	0.0343035***	0.0105094	0.000
MSP	0.0102132	0.0170591	0.549
Control Variables			
Size	0.752289	0.1701609	0.000
Lev	-0.7993556**	0.3588403	0.026
Ownership	0.0523793	0.5254807	0.921
Number of instruments	22		
Number of observations	408		
Number of groups	102		
AR(2)-p value	0.378		
Hansen/Sargan test—p value	0.378		

Note (1): *, **, *** denote 10%, 5% and 1% significance levels, respectively.

empirical model is thus correctly specified with no serial correlation in the transformed residuals, and there is validity of the instrument used.

Furthermore, results in Table 4 also show that the estimated results of the one-step GMM system where the factor of time positively impacts the CSR spending trend at the significant level of 1%. In other words, the actual spending value on CSR activities in the present year is expected to increase by 3.4% to that of the previous year. No relationship is supported between market SP and CSRS, indicating that any SP change will not impact the actual spending on CR activities among the Jordanian listed service firms. The results show a significant impact of total assets (size) on CSR spending at the level of significance of 1%, a negative significant impact of leverage on CSR spending at the level of significance of 5%, and no effect of ownership on the CSR spending as a level of insignificance is 92.1%. Thus, the results reject the alternative hypotheses proposing the effect of market SP on CSRS.

5. Discussion

The investigation of CSR impact on financial perspective provides in-depth understand of constituents of firms' financial performance. The study provides new insight into the CSR practices and their impact in Jordanian market. Moreover, the study provides how market price is affected by implementing CSR in firm as the investors rely on CSR disclosures and tend to invest in a particular stock. Based on the results, there is no significant relationship between actual CSR spending and market SP, which reject both hypotheses H1a and H1b. This indicates that any change in the value of market SP will have no effect on CSRS and this holds true for the other way around. These results are aligned with those reported by Alshannag et al. (2017), which revealed no relationship between the two variables, but contradict with those reported by Yin (2012), which supported a positive relationship between the two. The difference in results may be attributed to the financial market efficiency. In the Jordanian case, the financial market is still inefficient as the related information to the listed firms is not organized and systematic, and as such, shareholders and stakeholders cannot easily access them.

6. Conclusion

In this study, the relationship between CSR spending and Market Stock Price among Jordanian listed firms for the period from 2010 to 2017 is examined. The study measured CSR spending by the actual spending on related activities that are disclosed in the income statement of the firms. With regards to financial performance, it was measured using market indicator represented by market stock price. In addition to the above variables, three control variables were included in the

analysis, namely firm size, leverage and ownership. The examination of CSR and financial performance provides a value added knowledge determining firms' financial performance. The current article adds in the current body of knowledge regarding the CSR practices and their impact in Jordanian market. Furthermore, the study provides how market price is related to CSR disclosure by a particular firm. According to the obtained findings, there is no significant CSRS-MSP relationship, which indicates that increase in CSR spending of the Jordanian listed service firms will not affect market stock price. The control variables also had no effect on the market price, but firm size was found to significantly affect CSR spending, and leverage was found to significantly and negatively affect CSR spending. These results show that with the increased size of the firm, CSR spending will increase, but with increased financial leverage of the firm, CSR spending will decrease. The results of this study are not consistent with the Good Management Theory and Slack Resource Theory.

This study has limitations, the first of which is that the study is based on annual reports for data gathering on the relationship between CSR spending and financial performance for 8 years and thus, future studies are recommended to obtain data from another source like CSR reporting and newspaper report. The second limitation pertains to the adoption of a single indicator for the financial performance measurement. Future studies can make use of other financial indicators (ROA, ROE and Tobin's Q) when examining the CSRS—Market Stock Price relationship in both directions.

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Note

1. The value of stock price and CSR are low so we do not use the log for these values.

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