THE EFFECT OF CORPORATE SOCIAL RESPONSIBILITY PRACTICE ON CORPORATE FINANCIAL PERFORMANCE EVIDENCE FROM JORDAN

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Abstract
The objective of the current study is to examine the effect of corporate social responsibility (CSR) practice on corporate financial performance (CFP). The study tested 164 non-financial firms listed on Amman Stock Exchange (ASE) from 2011 to 2014. CSR activities are measured by corporate social responsibility disclosure index (CSRDI) based on content analysis. Meanwhile, corporate financial performance is measured by accounting-based performance and market-based performance. Generalized Method of Moment (GMM) analysis was used to analyze the effect of CSR disclosure on CFP. Firm size, Leverage, and Ownership are included as control variables. The results of current study indicated that there is positive and significant effect of CSR disclosure on accounting-based performance measured by Return on Assets (ROA). Conversely, there is no significant effect of CSR disclosure on market-based performance measured by market Stock Price (SP), and Price to Earnings Ratio (P/E). For control variables only Leverage has significant effect on financial performance measured by ROA. The Current study has implications in enhancing the understanding of financial performance for the firms through understanding the effect of CSR practices on CFP. Furthermore, the results of current study contribute to the previous studies on CSR practices in developing countries.

Keywords: Corporate Social Responsibility, Corporate Financial Performance, Amman Stock Exchange.

1. Introduction
Corporate social responsibility (CSR) has become a crucial issue and has grown effectively among companies in different countries. Furthermore, the appearance of business in these days cannot be separated from ethical and social responsibility issues. CSR appears to have become more important and is perceived as being relevant to firms all over the world (Aras et al., 2010). CSR has to do with certain factors; namely: employees, ethics, natural environment, and society to form and compose an important part of the company’s responsible behavior, which can change the company's reputation to a better level, improve the confidence of investors, customers, shareholder, and all stakeholder groups, aside from increasing the employees ability to work and exert more effort and dedication (Caroll, 1999; Mc Williams et al., 2006).

It is worth mentioning that CSR has gained huge controversy in academic studies in recent time. All of these debates show the importance of CSR in the developed and developing countries. However, there are many doubts about the level of the contribution of companies in the developing countries in their social responsibilities. Moreover, governments in the developed countries have a huge part in the increase of companies’ motivation to exercise CSR activities through giving many types of facilities to achieve that goal and there are legislations which force the companies to bind in
CSR activities. It is clear that these procedures help encourage corporation to engage in various types of CSR activities, such as community investment, philanthropy, employee relations, and environment protection. Conversely, in the developing countries, civil community and stakeholders help encourage companies to execute CSR activities, but most companies do not respond to that owing to a lack of awareness. It is also believed that CSR activities are not cheap and therefore, it will contradict with the goal of increasing shareholders wealth. Also there is weakness in the application of the existing laws toward society (Aras et al., 2010).

Huge bulk of recent studies is paying attention to the relationship between CSR and CFP (Griffin & Mahon, 1997; Roman et al., 1999; Fiori et al., 2007; Aras et al., 2010; Weshah et al., 2012; Ahamed et al., 2013; Adrian, 2014; Fernita et al., 2014), and the results of those studies differ. So far, researchers have not agreed upon unified results for the relationship between CSR and CFP. Some of these studies reached to positive relationship while other studies reached to negative and some studies reached to no relationship between two variables.

The study by Adrian, (2014) was conducted to study the relationship between CSR and CFP. It used CSR disclosure to measure CSR practice. Content analysis is employed to estimate CSR disclosure. The study takes into account two approaches to measure CFP; accounting-based approach which is represented in the following variables (ROA, ROE, and ROA) and market-based approach which is represented in stock price (SP) variable and it used control variables such as firm size, growth, and risk. The results of this study showed that there is a positive relationship between CSR disclosure and accounting-based approach, while there is no relationship between CSR disclosure and stock price. In addition, all control variables have a positive relationship with financial performance. Another study conducted by Fiori et al. (2007) found insignificant relationship between CSR with market stock price. It is worth mentioning that this study used 25 listed firms in Italy stock exchange from 2004 to 2006. Multiple regression analysis was employed to measure the relationship between CSR and CFP.

Therefore, the results of previous studies of the relationship between CSR and CFP are mixed. The difference in results is due to some possible reasons including: small size of samples and short periods of study may cause mixed in the results. Furthermore, different methods which are used to measure CSR may cause mixed results. Also, most studies used accounting-based performance and ignored market-based performance to measure CFP. Additionally, the numbers of financial indicators which represent the measurement of CFP are limited.

Most previous studies on CSR have focus on the developed countries and there is lack of studies conducted in the developing countries especially in Jordan on this topic. Moreover, the results of these studies are not the same and there is no clear relationship between CSR & CFP, as well as it is complex, controversial and inconclusive. So, there is a chance to conduct further studies in this scope of study (Mc William et al., 2006; Weshah et al., 2012; Adrian, 2014). Therefore, the objective of the current study is to investigate the effect of CSR disclosure on CFP for Jordanian companies in service and industrial sectors which are listed on ASE for the period of 2011-2014. This study used content analysis to measure CSR disclosure and used both accounting performance and market performance to measure CFP.

2. Literature Review and Hypotheses Development

Slack Resource Theory and Good Management Theory are the main theories to explain the relationship between CSR and CFP. Under Good Management Theory, firms should have good engagement in corporate social responsibility in order to increase the level of financial performance. On other words, CSR comes first. Based on this theory, CSR has several benefits namely; improve the satisfaction of different stakeholders, improve the reputation of the firms, increase employee’s motivations, reduce advertising expenses, and increase investor trust. Therefore, CSR can help firm in developing resources, managers, and capabilities that are shown in firm structure, human resource, and technology. Those benefits of CSR practices can bring efficiency in assets and resource management. Consequently, this leads to a better corporate financial performance (Orlitzky et al., 2003). Conversely, Slack Resource Theory suggests that CFP comes first. Based on this theory, a company should have a good financial performance to achieve good engagement in CSR. This is because exercising CSR needs a lot of funds (Waddock &Graves, 1997; Dean, 1999).
According to Margolis & Walsh (2001), mentioned that Bragdon and Marlin (1972) are the first researchers who tried to empirically investigate the relationship between CSR and CFP. CSR represented by environmental performance is measured as the level of pollution. Accounting-based performance such as return on equity and return on capital are used to measure financial performance. They found a significant positive relationship (Wagner, 2001).

According to Margolis and Walsh's review (2003), there are 127 studies conducted to investigate the relationship between CSR and CFP, and in 22 of the 127 studies the CSR was used a dependent variable affected by CFP. In contrast the majority of studies used CSR as independent variable and effect on CFP. Moreover there are 4 studies which examined the relationship in two directions. However, the results of these empirical studies have never been approved. Some studies found a positive relationship while some other studies have reached a negative relationship whereas other studies found no relationship between them.

There are several methods to measure CSR practices for the firms. According to Turker (2009) there are four main methods to measure CSR are: reputation indices and databases, content analysis, single or multiple issue indicators, and survey. Reputation indices and databases classify firms on the grounds of direction of CSR achievement. Examples of this method include the Fortune reputation index, and the Kinder, Lydenberg Domini (KLD) rating system. Content analysis is performed on corporate publications. Single or multiple issue indicators is another method to measure CSR includes pollution control performance and Toxic Release Inventory (TRI). The last method is Survey method by using questionnaire.

Preston and O'Bannon's (1994), Waddock and Graves (1997) studied the relationship between CSR and CFP in both directions and the results of their studies indicate a positive relationship. According to Preston and O'Bannon's (1994) conducted their study to understand both the relationship between CSR and CFP and the direction of causality. They found a positive sign of the relationship between CSR and CFP, and the causal relationship is from CFP to CSR, in this case they support the slack resource theory.

For measuring of CSR the previous studies used different strategies (e.g., Waddock & Graves, 1997; Berman et al., 1999; Tsoutsoura, 2004; Halomny, 2012) used reputation index and database such KLD to measure CSR. Other researchers used content analysis to measure CSR (e.g., Gray et al., 2001; Saleh et al., 2011; Aras et al., 2010; Bayoud, 2012; Hassan et al., 2012; Ahamed et al., 2014). Edmans (2012) and Al-Moumany et al. (2014) used survey questionnaire to measure environment dimension, social dimension, and economic dimension of CSR. Meanwhile, other studies use single issue indicators such as pollution control performance to measure CSR such as Spicer (1978). Some of researchers study the relationship between the actual spending for the companies on CSR activities and CFP such as Weshah et al. (2012).

For measuring of CFP some researchers used accounting-based performance and market-based performance to measure CFP (e.g., Saleh et al., 2011; Ducassy, 2013; Fernita et al., 2014). In contrast, there are researches that use only accounting-based measurement for CFP (e.g., Fauzi et al. 2007; Aras, et al. 2010; Weshah et al., 2012; Funda, 2014; Ahamed et al., 2014). Other researchers such as Edmans (2012) and Ducassy (2013) use only market-based performance to estimate CFP in their studies.

The results of many researchers indicated that there is a positive relationship between CSR and CFP (e.g., Preston & O’Bannon’s, 1994; Pava & Krausz, 1996; Waddock & Graves, 1997; Halomny, 2012; AL-Shwiyat & AL-Rjob 2013; Fernita et al., 2014). Some of these studies used CFP as independent variable such as AL-Shwiyat & AL-Rjob (2013) and Fernita et al. (2014). In contrast, studies conducted by Pava and Krausz (1996) and Halomny (2012) used CSR as dependent variable and CFP as dependent variable.

According to, Moore (2001), Lopez et al. (2007) and Iqbal et al. (2012) found a negative relationship between CSR and CFP. Based on the study by Lopez et al. (2007) used income before tax which represents accounting-based performance to measure CFP and control variables such as size, risk, and industry. They used the Dow Jones Sustainability Index (DJSI) to estimate CSR. On the other hand, Iqbal et al. (2012) used the accounting-based and market-based performance measurement for CFP. They consider many dimensions of CSR such as corporate governance, business ethical principles, environmental compliance, social compliance, product integrity, and
stakeholder's dialogue. They developed the stakeholder-weighted CSR index to measure CSR activities.

Some other studies such as McWilliams and Siegel (2000), Aras et al. (2010), Ducassy (2013), and Funda (2014) examined the relationship between CSR and CFP, and the results indicate no relationship between CSR and CFP. Aras et al. (2010) and Funda (2014) used CFP as an independent variable.

Based on good management theory, the current study will investigate the effect of CSR disclosure on CFP. So that the current study hypothesized that CSR disclosure is a predictor and consequence of CFP.

\[ H1a: \text{there is a positive and significant effect of CSR disclosure on ROA.} \]

\[ H1b: \text{there is a positive and significant effect of CSR disclosure on market SP.} \]

\[ H1c: \text{there is a positive and significant effect of CSR disclosure on P/E ratio.} \]

3. Research Methodology
This section shows the population and data source of the study, model development, independent variable and dependent variables, control variables, and GMM analysis.

3.1 Population and Data Source
This study will investigate the effect of CSR disclosure on CFP for Jordanian firms listed on ASE during the period from 2011 to 2014. All data used in this research are secondary data which were taken from annual reports issued by the firms. Annual report is the most accessible source of information for the listed firms (Wiseman, 1982). All annual reports for the firms are available and were gathered from the ASE website. In addition, this particular period is selected because there are a few studies conducted in Jordan which investigated the effect of CSR disclosure on CFP during this period.

For the purpose of this study, 164 listed non-financial firms had been chosen. The total number of all listed firms on ASE is 253 firms distributed on 4 main sectors which are: Banks and other financial firms sector which include 35 firms, insurance sector which includes 26 firms, service sector which includes 114 firms, and industry sector which includes 78 firms. This study takes into account all listed firms in the service and industry sectors which include 192 firms which covered 76% of the total listed firms on ASE. The net sample size is 164 firms comprising 656 annual reports because there are missing annual reports owing to firms that have stopped trading temporarily or delisted during the period of the study. However, the current study did not select the financial and insurance firms as the regulations for financial reporting for these sectors are different.

3.2 Model Development
The effect of CSR disclosure on CFP was investigated by dynamic panel approach which is Generalized Method of Moment (GMM). Hypothesis 1 was tested using model from 1 to 3 as follows.

**CSR disclosure index and ROA testing:** (H1a)

\[
\text{ROA}_i = \alpha + \beta_1 \text{ROA}_{i-1} + \beta_2 \text{CSRDI}_i + \beta_3 \text{SIZE}_i + \beta_4 \text{LEVERAGE}_i + \beta_5 \text{OWNERSHIP}_i + \sum_{t=2011} \text{YEAR}_t + \epsilon_i \quad (1)
\]

**CSR disclosure index and market SP testing:** (H1b)

\[
\text{SP}_i = \alpha + \beta_1 \text{SP}_{i-1} + \beta_2 \text{CSRDI}_i + \beta_3 \text{SIZE}_i + \beta_4 \text{LEVERAGE}_i + \beta_5 \text{OWNERSHIP}_i + \sum_{t=2011} \text{YEAR}_t + \epsilon_i \quad (2)
\]

**CSR disclosure index and P/E ratio testing:** (H1c)

\[
\frac{\text{P/E}_i}{\epsilon_i} = \alpha + \beta_1 \frac{\text{P/E}_{i-1}}{\epsilon_i} + \beta_2 \text{CSRDI}_i + \beta_3 \text{SIZE}_i + \beta_4 \text{LEVERAGE}_i + \beta_5 \text{OWNERSHIP}_i + \sum_{t=2011} \text{YEAR}_t + \epsilon_i \quad (3)
\]

In the above regression models, ROA, SP, and P/E represent financial variables that are used to measure Corporate Financial Performance (CFP). These financial variables represent dependent variables. CSRDI is Corporate Social Responsibility Index. Size, Leverage, and Ownership are control variables. \( a \) is Intercept, \( \beta \) is coefficient of variables, \( t-1 \) is the value of the variable in past year, \( t \) is the time from 2011 to 2013, \( i \) is 164 companies from 1 to 164, and \( \epsilon_i \) is error term.

3.3 Independent Variable
The current study developed the CSR disclosure index based on Global Reporting Initiative (GRI) framework to measure CSR activities for the firms. GRI framework was most widely used around the world (Nuryaman, 2013). GRI framework includes 79 activities under six main dimensions of CSR.
activities which are: Economic dimension with 9 activities, Environment dimension with 30 activities, Human Rights dimension with 9 activities, Labor Relation dimension with 14 activities, Product dimension with 9 activities, and Society dimension with 8 activities. There are many advantages of using GRI framework. First of all, the framework can be used to examine various activities of CSR practices. Moreover, it makes it easier for the researcher to conduct the content analysis in the same way for all firms based on a uniform standard in order to determine the level of CSR disclosure by firms. The framework also helps to avoid repetition process in the calculation of CSR activities, therefore the outcomes will be more objective (Hasan et al., 2012). The Current study used content analysis in order to identify whether firm has disclosed CSR activities under each GRI category. Content analysis was chosen because it is objective and enables the usage of larger samples. Conversely, this analysis has disadvantage in terms self-reporting bias, i.e. what companies report may not actually represent what they actually do (Aras et al., 2010).

The formula of CSRDI equation is as follow.

$$CSRDI_j = \frac{\sum x_{ij}}{n_j}$$  \hspace{1cm} (4)

$CSRDI_j$ is Corporate Social Responsibility Index from firm $j$. $x_{ij}$ will be valued 1 if the firm disclosed item $i$ or valued 0 if the firm didn't disclose item $i$. $n_j$ is the total number of activities that must be disclosed according to GRI framework (79 activities).

3.4 Dependent Variables

This study used accounting-based performance and market-based performance to measure CFP. One accounting-based measure which is Return on Assets (ROA) and two market-based measures which are Stock Price in the market (SP) and Price to Earnings Ratio (P/E) were used.

3.4.1 Return on Assets (ROA)

Return on assets is a main profitability measurement that is used to measure the ability of the company to utilize its assets to gain a net profit. In other meaning, it is about how much each dollar invested in assets can generate profit. It has been mainly used in several studies as a financial performance in order to investigate the relationship between ROA and CSR (e.g., Waddock & Graves, 1997; Weshah et al., 2012; Al-Shwiyat & AlRjoub, 2013; Ahamed et al., 2014). Weshah et al. (2012) and Ahamed et al. (2014) found a positive relationship between ROA and CSR. Conversely, the relationship between ROA and CSR has been found to be negative by Lopez et al. (2007) and Iqbal et al. (2012). On the other hand, Aras et al. (2010) and Funda (2014) reached to no relationship between CSR and ROA. This study used ROA as an accounting-based measurement. It is calculated by the equation below.

$$\text{ROA} = \frac{\text{Profit before Interest and Tax}}{\text{Average Total Assets}}$$  \hspace{1cm} (5)

3.4.2 Market Stock Price (SP)

Stock price in the market is one of the most important market indicators that measure financial performance. This study used the average stock market price during the year for the firms. Many previous studies adopted the stock market price as one of measurements of financial performance and its relationship with CSR (e.g., Ducassy, 2013; Adrian, 2014; Fernita et al., 2014). Ducassy (2013) reached to a significant positive relationship between stock market price and CSR for the period corresponding to the beginning of the financial crisis (second-half of 2007). However, in early 2007 and after the first six months of turmoil, there is no significant relationship between the two variables. Also the study by Fernita et al. (2014) indicated that there is a positive relationship between average stock price and CSR.

3.4.3 Price to Earnings Ratio (P/E)

Price to earnings ratio is one of market-based performance indicators that measure the financial performance for the firms. It shows what the investors are willing to pay for each stock based on its current earning. Few of previous studies employed this indicator to examine the relationship with CSR (e.g., Skare & Golja, 2012; Simionescu & Gherghina, 2012). Skare and Golja (2012) found the relationship between P/E ratio and CSR to be positive while the study conducted by Simionescu and Gherghina (2012) found that there is no relationship between CSR and P/E. This study used P/E ratio in order to investigate the relation between P/E and CSR. It's calculated by equation below.
3.5 Control Variables

Prior researches also show that there are other variables, which can affect corporate social responsibility and corporate financial performance (Waddock & Graves, 1997; Aras et al., 2010). This study employed three control variables which are Firm Size, Firm Risk, and Ownership. These variables could affect the relationship between CSR and CFP. These variables are discussed below.

3.5.1 Firm Size

Firm Size is an important control variable that might affect company activities because it represents a company's growth. Any company that has more assets has more ability to be concerned with CSR activities, than smaller firms. Smaller firms are less likely to participate in CSR programs (Udayasankar, 2008).

Previous studies (e.g., Waddock & Graves 1997; Aras et al., 2010; Funda, 2014) tested and controlled the impact of company size on CSR and CFP. Waddock & Graves (1997) noted that larger companies have the ability to practice more social activities rather than small companies because they have better resources. Further, Weshah et al. (2012) and Ahamed et al. (2014) reported a positive relationship between the size of the firm and CFP. This means that corporate financial performance is found to be positively related to the size of the firm because larger company has ability to manage their various resources better than small company. Hence, they achieve more profit. Conversely, the study by Chen and Wang (2011) reached to a conclusion that there is no relationship between the size of the firm and CFP. Firm size is measured by the equation as follows.

\[ \text{Firm size} = \log(\text{Total Assets}) \] (7)

3.5.2 Firm Risk

Financial leverage represents firm risk. This study used long-term debt ratio which is an instrument to measure the financial leverage of a firm. Companies that have low level of debt are better than companies that have high level of debt because they will pay extra interest expenses. Therefore, it is possible that affects the level of profits. At the same time, it can increase the pressure from stakeholders on the company (Brammer & Pavelin, 2006). Having low leverage level makes it easy for company to get funds. Therefore, it can use their funds to contribute in CSR activities. Some previous studies have been conducted to investigate the effect of proportion of debt to equity on the CSR and CFP (e.g., Iqbal et al., 2012; Weshah et al., 2012; Funda, 2014). According to Lopez et al. (2007) and Halomny (2012) there is a significant negative relationship between CFP and leverage. This study used long-term debt ratio to evaluate the financial risk of the firm. It is measured by the equation as follows.

\[ \text{Leverage} = \frac{\text{total long term debt}}{\text{total assets}} \] (8)

3.5.3 Ownership

The last control variable in this study is ownership. It is one of the variables can affect CSR and CFP. Some previous studies such as Funda (2014) employed the ownership as a control variable. The result mentioned that the ownership variable can affected CSR disclosure and CFP. Conversely, Aras et al. (2010) explained that there is no relationship between ownership and financial performance. Ownership in this study was calculated by the equation as follows.

\[ \text{Ownership} = \frac{\text{number of share owned by local investors}}{\text{total outstanding share}} \] (9)

3.6 Dynamic Panel Generalized Method of Moment

The current study used Generalized Method of Moment (GMM) as statistical analysis method to analyze the effect of CSR disclosure on CFP. According to Albawwat et al. (2015) mentioned that, this method is considered a dynamic panel approach developed by Blundell and Bond (1988) and Arellano and Bover (1995). GMM addresses the effect of the value for dependent variable in the past
year on the value for the same variable in the current year. Furthermore, this method utilizes the one whose period is short but with large number of the sample. There are two level equations in GMM, and in the first difference, each equation adopts Instrumental Variables (Independent Variables) for the removal of the correlation between explanatory variables and error (Albawwat et al., 2015).

When treating the short period of study, heterogeneity, autocorrelation, different variation, and explanatory variables that are endogenous and predetermined, there are significant benefits in using GMM analysis. For instance, the efficiency of the estimates would be improved dramatically with this analysis. However, the use of suitable instrument is necessary to ensure that GMM analysis will successfully produce results that are consistent, efficient, and unbiased. In response to this, the Hansen/Sargan test of over identifying restrictions, AR(2), and the difference in Hansen test are the three suitable diagnostic tests.

Hansen/Sargan test of over identifying restrictions scrutinizes the instrument overall validity. This is achieved by investigating the moment condition sample analogue used in the estimation process. Here, the instrument will be assumed as valid and the model is specified correctly if the moment condition holds. Meanwhile, AR(2) performs a test on residuals. This is to ensure that no serial correlation among the transformed error terms exists. The last test is the difference in Hansen test; it is applied to investigate the extra moment condition validity on the system of GMM. In this test, the difference between the Hansen statistics produced by the system of GMM and the difference GMM is measured. Then, if the null hypotheses failed to be rejected, the estimated model is supported (Albawwat et al., 2015).

4. The Results of analysis
This section shows the results from the descriptive analysis and the generalized method of moment analysis for the current study.

4.1 The results of Descriptive Analysis
Table 1 below shows the descriptive statistical analysis for all variables used in all regression models for the listed firms on ASE from 2011 to 2014 which are: CSRDI, ROA, SP, P/E, Firm Size, Leverage, and Ownership.

<table>
<thead>
<tr>
<th>Table 1</th>
<th>Descriptive Statistics Analysis of Overall Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category</td>
<td>Mean</td>
</tr>
<tr>
<td>CSRDI %</td>
<td>0.341</td>
</tr>
<tr>
<td>ROA %</td>
<td>-0.022</td>
</tr>
<tr>
<td>SP (JD)</td>
<td>1.81</td>
</tr>
<tr>
<td>P/E Times</td>
<td>73.92</td>
</tr>
<tr>
<td>Size (JD)</td>
<td>66,209,653</td>
</tr>
<tr>
<td>Leverage %</td>
<td>0.24</td>
</tr>
<tr>
<td>Ownership%</td>
<td>0.81</td>
</tr>
</tbody>
</table>

Sources: Jordanian Firms Listed on Amman Stock Exchange ASE (N=164)

Based on the data in Table 1, the overall mean of CSR disclosure index in six dimensions for companies listed on ASE through 4 years was 34.1% with standard deviation of 13.7%. This means that companies disclosed mostly 27 items out of 79 items of CSR activities based on GRI framework. Also, the overall max value was 74.4% which means that there are few companies disclosing 59 items out of 79 items and the overall min value was 10.4% which means that there are some companies disclosing 8 items out of 79 items. In general the level of disclosure for Jordanian firms during the selected period toward CSR activities is low and the practice of CSR is very weak in most dimensions. So it must have a significant role towards various stakeholders. Furthermore, the data in Table 1 indicate that the Jordanian companies listed on ASE varied dramatically in financial performance. This variation can be noticed by standard deviation values and the expanded range between the maximum and minimum values for all financial indicators. For instance, SP is spreading from 0.06 Jordanian Dinar (JD) to 46.51 JD, P/E ratio from 0.44 times to 5690 times for the whole period. In addition, the average for ROA, SP, and P/E are -2%, 1.81 JD, 73.92 times respectively.
Table 1 indicates that the mean of total assets for Jordanian companies listed in ASE from 2011 to 2014 was 66,209,653 JD while the standard deviation was 186,000,000 JD. The standard deviation value and the expanded range between maximum and minimum values explain the differences between the companies' size listed in ASE. The mean of leverage was 0.24. This means that 24% of total assets for Jordanian firms are financed by long-term debt. Meanwhile, the mean of ownership was 0.81. This means that the majority ownership of Jordanian companies is listed on ASE by the Jordanians.

4.2 The Results of GMM Analysis
Table 2 shows that the system GMM test was performed to investigate the relationship between CSRDI as independent variable, and ROA (accounting-based indicator to measure CFP) as dependent variable. The outcomes indicate that variables are rejected in 1% significance level.

The results of both specification tests namely AR (2) for testing the serial correlation and the Hansen test for testing the validity of instrument adopted are also valid. As shown in Table 2 the p-values for both the AR (2) and Hansen tests are higher than 10%. If the p-values for AR (2) and Hansen tests are equal to or less than 10% significance level, it means that the statistical analysis is insignificant. This implies that the empirical model has been correctly specified because there is no serial correlation (autocorrelation) in the transformed residuals, and the instruments (moments conditions) used in the model are valid.

**Table 2 Dynamic Panel-Data Estimation, One-Step System GMM for ROA**

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficients</th>
<th>Standard Error</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>0.0041066***</td>
<td>0.0010881</td>
<td>0.000</td>
</tr>
<tr>
<td>CSR disclosure index</td>
<td>0.0480481***</td>
<td>0.0138831</td>
<td>0.000</td>
</tr>
<tr>
<td>CSRDI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control Variables</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size</td>
<td>0.0665811</td>
<td>0.0572445</td>
<td>0.245</td>
</tr>
<tr>
<td>Lev</td>
<td>0.3040892***</td>
<td>0.0590563</td>
<td>0.000</td>
</tr>
<tr>
<td>Ownership</td>
<td>0.2242566</td>
<td>0.1950277</td>
<td>0.25</td>
</tr>
<tr>
<td>Number of instruments</td>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of observations</td>
<td>328</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of groups</td>
<td>164</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AR(2)-p value</td>
<td>0.239</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hansen/Sargan test –p value</td>
<td>0.716</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

Table 2 shows that the factor of time affects positively the trend of ROA at 1% significance level; the value of ROA for the previous year impacts positively on the current value of ROA because the p-value was 0.000. This means that the current value of ROA will increase by 0.0041 compared to its value in the previous year. Also, the outcomes demonstrate that there is significant relationship between ROA and CSRDI, with 1% significance level. Moreover, the significant impact of control variables appears only for leverage (LEV) and there is a positive significant relation with ROA at 1% significance level. The increase in long-term debts leads to increase in ROA. Meanwhile there is no significant relationship between firms size which is measured by total assets with ROA. That means, if the total assets change, the ROA does not effect by this change. Also there is no effect of ownership on ROA.

The effect of CSRDI on ROA was positive, which indicates that the increase in CSRDI by 1% will increase ROA by 5%. Hence, the alternative hypothesis was accepted, which states that "there is a positive effect of CSR disclosure on return on assets (ROA)."

As an additional analysis, Table 3 shows that the system GMM test was performed to investigate the relationship between CSRDI as independent variable, and SP (market-based indicator
to measure CFP) as dependent variable. The outcomes indicate that there are no significant effects for all variables except for past stock price.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficients</th>
<th>Standard Error</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP</td>
<td>0.9667394**</td>
<td>0.0650121</td>
<td>0.000</td>
</tr>
<tr>
<td>CSR disclosure index</td>
<td>0.6631007</td>
<td>0.9288379</td>
<td>0.475</td>
</tr>
<tr>
<td>Control Variables</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size</td>
<td>0.0332746</td>
<td>0.3193301</td>
<td>0.917</td>
</tr>
<tr>
<td>Lev</td>
<td>-0.1531528</td>
<td>0.3131478</td>
<td>0.625</td>
</tr>
<tr>
<td>Ownership</td>
<td>0.7996797</td>
<td>0.9599997</td>
<td>0.405</td>
</tr>
<tr>
<td>Number of instruments</td>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of observations</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Number of groups</td>
<td>164</td>
<td></td>
<td></td>
</tr>
<tr>
<td>AR(2)-p value</td>
<td>0.22</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hansen/Sargan test value</td>
<td>0.619</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

Table 3 shows that the results of both specification tests namely AR (2) for testing the serial correlation and the Hansen test for testing the validity of instrument adopted are valid. As shown in Table 3 the p-values for the AR (2) and Hansen tests are higher than 10% which indicates statistical insignificance at the ten percent significance level. This implies that the empirical model has been correctly specified because there is no serial correlation (autocorrelation) in the transformed residuals, while the instruments (moments conditions) used in the models are valid.

Table 3 above presents the estimated results of one-step system GMM. As indicated by the table, the factor of time affects positively the trend of SP at 1% significance level. The market SP for previous year impacts positively on the current market SP because the p-value was 0.000. This means that the current market SP will increase by 0.966 compared to its value in the previous year. Also, the outcomes demonstrate that there is no significant relationship between SP and CSRDI. Moreover, the significant impact of all control variables does not appear on SP.

There is no effect of CSRDI on SP, which indicates that any change in CSRDI whether increase or decrease will not effect on SP. Hence, the alternative hypothesis was rejected, which states "there is a positive effect of CSR disclosure on (SP)".

As an additional analysis, Table 4 shows that the system GMM test was performed to investigate the relationship between CSRDI as independent variable, and P/E (market-based indicator to measure CFP) as dependent variable. The outcomes indicate that there are no significant effects for all variables.

<table>
<thead>
<tr>
<th>Variables</th>
<th>Coefficients</th>
<th>Standard Error</th>
<th>P-Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>P/E</td>
<td>0.0078694</td>
<td>0.0290907</td>
<td>0.787</td>
</tr>
<tr>
<td>CSR disclosure index</td>
<td>302.6623</td>
<td>271.6504</td>
<td>0.265</td>
</tr>
<tr>
<td>Control Variables</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Size</td>
<td>7.84247</td>
<td>93.72334</td>
<td>0.926</td>
</tr>
<tr>
<td>Lev</td>
<td>-56.77823</td>
<td>150.8886</td>
<td>0.707</td>
</tr>
<tr>
<td>Ownership</td>
<td>-130.1118</td>
<td>631.5649</td>
<td>0.837</td>
</tr>
<tr>
<td>Number of instruments</td>
<td>11</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of observations</td>
<td>328</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The results of both specification tests namely AR (2) for testing the serial correlation and the Hansen test for testing the validity of instrument adopted are also valid. As shown in Table 4, the p-values for the AR (2) and Hansen tests are higher than 0.10 which means that they are statistically insignificant at the ten percent significance level. This implies that the empirical model has been correctly specified because there is no serial correlation (autocorrelation) in the transformed residuals, and the instruments (moments conditions) used in the models are valid.

Table 4 presents the estimate results of one-step system GMM. As indicated by the Table 4, the factor of time does not affect the trend of P/E; which indicates that past value of P/E does not impact the current value of P/E. Also, the outcomes demonstrate that there is no significant relationship between CSRD and P/E, because the p-value was 0.265. Moreover, there is negative insignificant effect of leverage and ownership as control variables on P/E. Also, there is no significant relationship between total assets and P/E.

There is no effect of CSRDI on P/E, which indicates that any change in CSRDI whether increase or decrease will not have effect on P/E. Hence, the alternative hypothesis was rejected, which states 'there is a positive effect of CSR disclosure on price to earnings ratio (P/E)’.

5. The Discussions
The results display that the extent of CSR disclosure was significantly related with ROA. Based on the results in Table 2 the current study leads to the acceptance of the hypotheses H1A and indicates that an addition of 1% of CSRDI resulted in an increase of 4.8% in ROA. This indicates that the level of CSR disclosure influences the profitability of Jordanian companies during the period from 2011 to 2014. The Current study provides results that support the result of many previous studies conducted on this field (e.g., Waddock & Graves, 1997; Tsoutsoura, 2004; Saleh et al., 2011; Ahamed et al., 2014; Mohammad et al., 2014), which indicate that there is positive relationship between CSR disclosure and ROA.

This study also found insignificant relationship between market SP and CSR disclosure. Based on the results in Table 3 the current study leads to the rejection of hypotheses H1b. This means that the increase in CSR disclosure level will not have effect on the market stock price because there is no relationship between the two variables. This indicates that the level of CSR disclosure does not influences on the profitability of Jordanian companies during the period from 2011 to 2014. Many previous studies have showed that there is no relationship between CSR disclosure and SP. The result of this study supports the result of previous studies on this topic (e.g., Ducassy, 2013; Adrian, 2014).

This study found insignificant effect of CSR disclosure on P/E. This means that, any change in CSRD level will not have effect on the P/E ratio. Based on the results in Table 4, the current study leads to the rejection of H1c hypothesis. Based on previous studies, some studies suggest that there is no effect of CSR on P/E ratio such as Simionescu and Gherghina (2012). Hence the result of the current study supports the finding of this study.

6. The Conclusions
This study has investigated the effect of CSR practice on CFP for Jordanian listed firms which cover the service and industry sectors for the period from 2011 to 2014. CSR practice is measured by CSR activities disclosure in annual reports based on GRI framework. CFP is measured by accounting-based performance which is represented by ROA and market-based performance which is represented by SP and P/E ratio. Three control variables were employed to measure their effect on CFP. They are: firm size, leverage, and ownership. The results of the current study indicate that there is a positive significant effect of CSR disclosure on accounting-based performance, while there is no significant effect of CSR disclosure on market-based performance. That means, the increase of the CSR disclosure by firm will lead to better CFP measured by ROA. This result is supported the good
management theory which encourages firms to practice more CSR activities in various dimensions and disclose these practices in order to face the pressure of stakeholders and shareholders. Moreover, one control variable has positive effect on accounting-based performance only which is the leverage, while the size of the firm and ownership didn’t have any effect on CFP.

The results indicate that CSR practice should be a part of main activity for firm where this study proved that the practice of CSR activities has positive effect on financial performance. However, there is a gap between what stakeholders need and what firms give to those stakeholders. So firms should have a clear CSR program to fill this gap and satisfy the wishes of stakeholders and thus to obtain the sustainability of the firms.

However, this study has some limitations. First, the study depends on CSR disclosure to measure CSR practice. Furthermore, the current study was based on annual reports for the firms to collect the data and study the effect of CSR on CFP for 4 years. Therefore, future research may study the relationship between CSR and CFP in both directions and use other method to measure CSR practice such as the expenditure of CSR activities. Additionally, future research may take another source of data such as separate CSR reporting, and newspaper report and take longer periods and larger samples to reflect a comprehensive picture about the relationship between CSR and CFP.

References


Fernita, C., Paramita, E.L., Restuti, M.D., & Nugroho, P.I. 2014. “Corporate social responsibility (CSR) disclosure in banking industry in Indonesia”. 


