The Impact on Corporate Financial Performance Vs Market Performance: Why Does This Matter in CSR Practices Disclosure?

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Abstract
CSR practices disclosure in public listed companies in Malaysia was made compulsory recently. Consequently, its contribution to the firm performance based on financial and market indicators has often been questioned. This study explores using partial least square – structural equation modelling, the predictive accuracy and relevancy of CSR practices disclosure on corporate financial performance given by ROA and market performance given by Tobin’s Q. Using a sample size of 200 randomly selected public listed firms in Malaysia, the effect of CSR practices on corporate financial performance based on an accounting and market measures was determined. Findings of this study showed that CSR practices have a significant and positive impact on ROA and Tobin’s Q. Reputation mediates the relationship between CSR practices and ROA but not with Tobin’s Q. CSR practices and reputation could explain 52.9% of variance in ROA but only 6.3% of variance in Tobin’s Q. CSR practices have a large effect size on reputation and ROA but negligible effect size on Tobin’s Q. Thus, these findings imply that CSR practices can relate significantly to accounting-based but not market-based financial performance. Further studies to explore internal and external factors such as third-party assurance, industry type and other environmental factors as well as extending the timeline might provide more insights to understand how CSR practices can influence financial performance.

Keywords: corporate social responsibility, ROA, Tobin’s Q, financial performance, market performance, firm reputation

1. Introduction
Corporate social responsibility (CSR) has become a slogan in the business world of today, due to the pressing impact of globalization that demanded business organizations to
contribute more meaningfully to all its stakeholders rather than solely to shareholder (Lu, Chau, Wang & Pan, 2014; Whalen, 2013). CSR which initially focused on environment and community has now expanded to two other dimensions, marketplace and workplace to cater for all the stakeholders of the organization (Bursa, 2006; Wissink, 2012). The significance of CSR performance to the business organization is indicated by the rising trend of CSR disclosure as 93% of largest companies globally are now reporting on CSR practices formally (KPMG, 2013).

The prime motivation of a company to implement CSR is to gain profitability (Ahamed et al., 2014). Empirical studies have shown that CSR and financial performance are positively associated (Ahamed et al., 2014; Ehsan & Kaleem, 2012; Hirigoyen & Poulain-Rehm, 2015). Nevertheless, in the assessment of the relationship and impact of CSR performance on corporate financial performance (CFP), there are several issues which need to be taken into consideration. Firstly, previous studies were implemented using various methodologies, approaches and variables (Girerd-Potinet et al., 2013). This has resulted in a variety of findings, although most studies conclusively indicated a positive and significant link between CSR and CFP (Almshammari, 2015; Peng & Yang, 2014; Surroca et al., 2010). However, these studies also pointed out that there are other intervening variables which need to be considered in explaining the relationship between CSR and CFP. One such variable is firm reputation. Good CSR performance will normally lead to the building up of a positive reputation of the firm, and subsequently results in better financial performance (Dickinson-Delaporte, Beverland, & Lindgreen, 2010; Othman, 2012; Hond, Rehbein, Bakker, & Lankveld, 2014; Sur & Sirsly, 2013). The contribution of reputation is in the role of a mediating variable and supported by the stakeholder theory which argued that CSR disclosure causes more positive reputation and leading to greater financial performance (Beheshtifar & Korouki, 2013; Hull & Tang, 2012; Razak & Mustapha, 2013; Saeidi, et al., 2015; Sur & Sirsly, 2013). Thus, the inclusion of reputation in the CSR and CFP equation provides a clearer picture of how CSR affects financial performance.

Secondly, the use of a variety of methodologies in past studies has also resulted in diverse findings about the CSR and CFP connection. One of the common methods of measuring CSR disclosure and reputation disclosure is by using an index scoring (Esa & Mohd Ghazali, 2012; Khan, 2010; Othman, 2012; Saleh et al., 2010; Yao, Wang & Song, 2011; Zainal, et al., 2013). The CSR index and Reputation index can be computed by using a dichotomous ‘yes’ and ‘no’ response and the index calculated as the ratio of the number of ‘yes’ answers over total representative items. By using an index scoring to represent CSR disclosure and reputation in this study, this could pave the way for a common measure in future studies.

Thirdly, the use of different methodologies and variables in past studies also pointed to the measurement of financial performance. There are various measures of financial performance such as accounting-based measures (accounting return), market-based measures (investors return) and perceptual measures (survey). Accounting-based measure of financial performance relates to profitability and assets utilization (Scholten, 2008) while market-based measure used price per share, stock performance and market value to book value ratio (Lu et al., 2014). Meanwhile, perceptual measures are exclusively based on subjective assumptions based on survey to indicate robustness of financial position (Jitaree, 2015). For this study, an accounting-based measure and a market-based measure are compared to determine how CSR affects financial performance from two different measures of CFP. Perceptual measure was not included as it is largely subjective while both accounting-based and market-based measures are objective (Kargiorgos, 2010). Accounting-based
measures normally used return on assets (ROA), return on equity (ROE), return on sales (ROS) and net profit margin (NPM) (Dkhili & Ans, 2012). ROA is considered as the most valid indicator as it has the capability of informing how firm increases their profit by using total assets in a defined time period (Raza et al., 2012). Past studies have used ROA as a measure of financial performance and related to CSR (Ahamed et al., 2014; Ahmed, Islam & Hasan, 2012; Flammer, 2013; Iqbal et al., 2012; Kamatra & Kartikaningdyah, 2015; Kang et al., 2010; Mwangi & Jerotich, 2013; Yusoff & Adamu, 2016).

In comparison, market-based measures of CFP are also often used to assess the CSR and CFP linkage (Jitaree, 2015; Lu et al., 2014). A market-based measure of CFP relates to the investor’s assessment of a firm’s ability to produce future profits (Innoue & Lee, 2011). Measurement using this method includes market value added (MVA), market-to-book value (MTBV), price per earnings (PE) ratio and Tobin’s Q (Ghelli, 2013). For this study, Tobin’s Q is considered to represent a market-based performance measure as it is considered as the best indicator (Jitaree, 2015). Tobin’s Q is the ratio of the market value of assets in a firm to the replacement cost of these assets (Ghelli, 2013). Therefore, it portrays the effectiveness from an investment perspective (Jitaree, 2015). A high Tobin’s Q value indicates that the firm can invest more in capital because they are ‘worth’ more than the cost of their assets (Karagiorgos, 2010). The use of Tobin’s Q in the assessment of CSR and CFP association is also common in many studies (Ghelli, 2013; Jitaree 2015; Saleh et al., 2011).

Therefore, this study has focused on assessing the relationship between CSR and financial performance based on two measuring tools for CFP which are ROA as the accounting-based measure and Tobin’s Q as the market-based measure. This study also identifies the mediating effect of firm reputation on the relationship between CSR practices with the two financial performance measures. For the purpose of this study, seven research hypotheses were tested.

H1: CSR significantly and positively affect reputation
H2: CSR significantly and positively affect ROA
H3: CSR significantly and positively affect Tobin’s Q
H4: Reputation significantly and positively affect ROA
H5: Reputation significantly and positively affect Tobin’s Q
H6: Reputation mediates the relationship between CSR and ROA
H7: Reputation mediates the relationship between CSR and Tobin’s Q

2. Methodology

The study used a content analysis method to gather secondary data from the annual reports of the participating firms. A total of 200 public listed companies (PLCs) on the main board of Bursa Malaysia was randomly selected. Data pertaining to CSR disclosures were extracted using a CSR checklist from the corresponding annual reports of the firms. Data on reputation disclosure and financial performance in ROA and Tobin’s Q were extracted from the annual report of the firms. The IBM SPSS 23.0 statistical tool was used to create a database which was then transformed into a comma delimited (.csv) format. SmartPLS3.0 runs the inferential analysis using the database in .csv format based on a partial least square – structural equation modelling (PLS-SEM) approach. Two levels of assessment were carried out: the assessment of the measurement models and the assessment of the structural model. Seven hypotheses were tested using bootstrapping method in SmartPLS3.0. The predictive accuracy and relevancy of CSR on ROA and Tobin’s Q were also determined.
3. Results

Before the structural model of this study was assessed, the measurement models for each and between constructs were assessed. In the research model, four latent variables were inter-related to one another. However, three of the constructs, namely reputation, ROA and Tobin’s Q are represented by a single indicator. Only CSR is represented by four indicators for each of the dimensions of CSR with their respective index scoring. Table 1 presents the indicator reliability, and the construct reliability and validity of the measurement model for CSR variable. Hair et al. (2017) stated that outer loading must be 0.708 or more to show indicator reliability. As illustrated below, the indicator, ENV3 has an outer loading of 0.615. However, this indicator was retained as the average variance extracted (AVE) has exceeded 0.50. Wong (2013) stated that an indicator with an outer loading between 0.4 and 0.7 can be retained if AVE has reached its threshold. The internal consistency of the construct, CSR is also acceptable, given that the Cronbach’s alpha is more than 0.708. Composite reliability is also acceptable as the value exceeded 0.708 (Hair et al., 2017).

Table 1. Indicator Reliability, Internal Consistency, Construct Reliability and Validity

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Outer Loading</th>
<th>Cronbach’s Alpha</th>
<th>Composite Reliability</th>
<th>AVE</th>
<th>Conclusion</th>
</tr>
</thead>
<tbody>
<tr>
<td>ENV3</td>
<td>0.615</td>
<td>0.718</td>
<td>0.836</td>
<td>0.545</td>
<td>Acceptable</td>
</tr>
<tr>
<td>COM3</td>
<td>0.781</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MP3</td>
<td>0.821</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WP3</td>
<td>0.720</td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

The discriminant validity of the construct is determined using Fornell-Larcker criterion and Heterotrait-Monotrait (HTMT) ratio. As shown in Table 2, the Fornell-Larcker criterion is indicated by the square root of AVE of the construct which must be greater than the correlation of the latent variables (Hair et al., 2017). Thus, this means that the number on the top of the column and to the right should be greater than the number below or to the left. Thus, by using Fornell-Larcker criterion, the discriminant validity of the measurement models has been ascertained.

Table 2. Discriminant Validity with Fornell-Larcker Criterion

<table>
<thead>
<tr>
<th></th>
<th>CSR</th>
<th>REPUTATION</th>
<th>ROA</th>
<th>TOBIN’S Q</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSR</td>
<td>0.738</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>REPUTATION</td>
<td>0.613</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROA</td>
<td>0.724</td>
<td>0.496</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>TOBIN’S Q</td>
<td>0.246</td>
<td>0.115</td>
<td>0.344</td>
<td>1</td>
</tr>
</tbody>
</table>

The discriminant validity was also assessed with HTMT ratio. As shown in Table 3, all the values shown for the latent constructs are less than 0.850 which is the cut-off value for acceptance (Hair et al., 2017). Thus, discriminant validity of the measurement models is further confirmed with HTMT ratio.
Table 3. Discriminant Validity with HTMT Ratio

<table>
<thead>
<tr>
<th></th>
<th>CSR</th>
<th>REPUTATION</th>
<th>ROA</th>
<th>TOBIN'S Q</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSR</td>
<td>0.725</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>REPUTATION</td>
<td>0.841</td>
<td>0.496</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROA</td>
<td>0.284</td>
<td>0.115</td>
<td>0.344</td>
<td></td>
</tr>
</tbody>
</table>

The collinearity issue was assessed with variance inflation factor (VIF). According to Wong (2013), the value of VIF must not exceed five. Hence, the result shown in Table 5 implied that there is no collinearity issue in the measurement models.

Table 4. Collinearity Issues with VIF

<table>
<thead>
<tr>
<th></th>
<th>CSR</th>
<th>REPUTATION</th>
<th>ROA</th>
<th>TOBIN'S Q</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSR</td>
<td>1</td>
<td>1.604</td>
<td>1.604</td>
<td></td>
</tr>
<tr>
<td>REPUTATION</td>
<td>1.604</td>
<td>1.604</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ROA</td>
<td>1.604</td>
<td>1.604</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOBIN'S Q</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Figure 1 shows the result of the bootstrapping analysis. The paths from the exogenous latent constructs to the endogenous latent constructs are shown. The result shows that there is a significant relationship between CSR and reputation ($\beta = 0.613$, $P = 0.000$). The result also indicated that CSR is significantly and positively related to ROA ($\beta = 0.673$, $P = 0.000$) and Tobin’s Q ($\beta = 0.281$, $P = 0.000$). Reputation is significantly and positively related to ROA ($\beta = 0.084$, $P = 0.021$) but the relationship with Tobin’s Q is negative and not significant ($\beta = -0.057$, $P = 0.422$).
Figure 1. Bootstrapping Analysis Result

As shown in Table 5, CSR has positive and significant relationships with ROA and Tobin’s Q, and reputation has a significant and positive relationship with ROA but not with Tobin’s Q. The indirect path between CSR and ROA via reputation as a mediator to the relationship is positive and significant ($\beta = 0.051$, $P = 0.021$). However, the indirect path between CSR and Tobin’s Q via reputation is negative and not significant ($\beta = -0.035$, $P = 0.430$). Thus, reputation mediates the relationship between CSR and ROA but not between CSR and Tobin’s Q.

Table 5. Path Significance and Direction of Relationship

<table>
<thead>
<tr>
<th>Path</th>
<th>$\beta$</th>
<th>T</th>
<th>P</th>
<th>Decision</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSR $\rightarrow$ Reputation</td>
<td>0.613</td>
<td>11.647</td>
<td>0.000</td>
<td>Significant</td>
</tr>
<tr>
<td>CSR $\rightarrow$ ROA</td>
<td>0.673</td>
<td>19.05</td>
<td>0.000</td>
<td>Significant</td>
</tr>
<tr>
<td>CSR $\rightarrow$ Tobin’s Q</td>
<td>0.281</td>
<td>4.002</td>
<td>0.000</td>
<td>Significant</td>
</tr>
<tr>
<td>Reputation $\rightarrow$ ROA</td>
<td>0.084</td>
<td>2.307</td>
<td>0.021</td>
<td>Significant</td>
</tr>
<tr>
<td>Reputation $\rightarrow$ Tobin’s Q</td>
<td>-0.057</td>
<td>0.804</td>
<td>0.422</td>
<td>Not significant</td>
</tr>
<tr>
<td>CSR $\rightarrow$ Reputation $\rightarrow$ ROA</td>
<td>0.051</td>
<td>2.319</td>
<td>0.021</td>
<td>Significant</td>
</tr>
<tr>
<td>CSR $\rightarrow$ Reputation $\rightarrow$ Tobin’s Q</td>
<td>-0.035</td>
<td>0.790</td>
<td>0.430</td>
<td>Not significant</td>
</tr>
</tbody>
</table>

Figure 2 shows the PLS algorithm result whereby the predictive accuracy, $R^2$ of reputation, ROA and Tobin’s Q are presented. It shows that CSR can predict an accuracy of 37.6% in reputation and 52.9% in ROA but only 6.3% in Tobin’s Q. Hence, this shows that CSR performance is more capable of predicting outcome in reputation and financial performance based on ROA but not the financial performance based on Tobin’s Q.

Figure 2. PLS Algorithm Analysis Result
Table 6 presents the effect size, $f^2$ of the predictive accuracy for reputation, ROA and Tobin’s Q by CSR. Hair et al. (2017) stated that effect size can be categorized as small if $f^2$ is 0.02, moderate if $f^2$ is 0.15 and large if $f^2$ is 0.35. Hence, the result shows that CSR has a large effect on reputation ($f^2 = 0.604$) and ROA ($f^2 = 0.599$) but a small effect on Tobin’s Q ($f^2 = 0.053$). The effect of reputation on ROA is small and on Tobin’s Q is negligible.

Table 6. The Effect Size, $f^2$

<table>
<thead>
<tr>
<th></th>
<th>CSR</th>
<th>REPUTATION</th>
<th>ROA</th>
<th>TOBIN’S Q</th>
</tr>
</thead>
<tbody>
<tr>
<td>CSR</td>
<td>0.604</td>
<td>0.599</td>
<td>0.053</td>
<td></td>
</tr>
<tr>
<td>REPUTATION</td>
<td></td>
<td>0.009</td>
<td>0.002</td>
<td></td>
</tr>
<tr>
<td>ROA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOBIN’S Q</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

From the blindfolding analysis result in Figure 3, it is shown that CSR contributed to a larger predictive relevance for reputation ($Q^2 = 0.359$) and ROA ($Q^2 = 0.517$). The predictive relevance for Tobin’s Q is small ($Q^2 = 0.061$). However, according to Hair et al. (2017), a value above zero indicates that there is predictive relevancy. Thus, CSR has predictive relevancy to explain reputation, ROA and Tobin’s Q.

Figure 3. The Blindfolding Analysis Result

4. Discussion

This study shows that capitalizing in CSR will lead to financial performance in terms of profitability and investment. This is in alignment with findings from past studies (Ahamed et al., 2014; Chen, Feldmann & Tang, 2015; Fauzi & Idris, 2010; Innoue & Lee, 2011; Jitaree, 2015; Trang & Yekini, 2014; Waddock & Graves, 1998; Yusoff & Adamu, 2016). Additionally, this study confirms that CSR performance drives reputation of the firm. Thus, this finding also agrees
with past studies’ findings (Beheshtifar & Korouki, 2013; Bertels & Peloza, 2008; Othman, 2012; Saeidi et al., 2015). In comparison, CSR has a greater relevance with ROA compared to Tobin’s Q. Thus, this implies that CSR has a greater impact on profitability, which is one of the central focuses of business firms. Reputation also has a significant relationship with ROA but not with Tobin’s Q. Therefore, it indicates that CSR and reputation has more immediate effects on profitability but may require more time to provide significant and larger impact on investment effectiveness. This study shows that reputation mediates the relationship between CSR and ROA but not with Tobin’s Q. The theory of stakeholder is able to justify this situation whereby this theory explains that CSR performance is driven by the need to fulfill demands from the stakeholders, including the shareholders. From CSR performance, good reputation is created and from good reputation, this will encourage more product and firm loyalty among the firm’s consumers. A larger number of consumers yields greater sales volume which in turn, drives profitability. From an investment perspective, the relationship between CSR and Tobin’s Q is not mediated by reputation and reputation and Tobin’s Q are not significantly related. One of the possible reasons to understand this finding is in the choice of timeline adopted in this study. The short one-year period might not be adequate enough for reputation to develop a strong effect in terms of investment. A longer time period might be necessary to demonstrate a significant impact.

5. Implications and Recommendation for Future Studies

This study strengthens notions from past studies on the importance of CSR disclosures to build not only reputation, but more importantly, driving profitability of the firm. Therefore, this study provides evidences to motivate firms for more disclosure of their CSR activities so that their reputation is enhanced, and financial performance is improved. The use of index scores to measure CSR and reputation in this study also showed its applicability in research. Therefore, this could also contribute towards a more synchronous method of CSR and reputation measurement in future studies. Although this study has provided valuable insights on the relationship between CSR and financial performance, there is a need to explore the relationship between CSR and reputation with a market-based financial performance indicator like Tobin’s Q using a longer timeline or using a different indicator. Further to that, it might also lead to more insights and better understanding of the CSR relationship with financial performance if other variables such as third-party assurance and industry type are included in the research framework. The inclusion of these variables would provide a richer model and with a greater capability of understanding the effect of CSR in the business world.

6. Conclusion

This study concludes that good performance in CSR will directly impact on firm reputation and financial performance. This study also shows that reputation mediates the relationship between CSR and financial performance, particularly the firm’s profitability. In comparison, CSR relates more towards ROA compared to Tobin’s Q. The effect size of CSR on ROA is large, and therefore, stressing on the need for firms to disclose more of their CSR practices.

7. References


