CORPORATE SOCIAL RESPONSIBILITY AS A SOURCE OF FINANCIAL PERFORMANCE: EVIDENCE FROM PAKISTAN

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Abstract: Corporate Social Responsibility Disclosure (CSRD) Guidelines (2012) constituted by the Security and Exchange Commission of Pakistan for all listed companies in Pakistan. The purpose of this study is to explore post guidelines effects over firms' CSRD level as well as CSRD association with financial performance of Pakistan’s automobile sector from 2013-2019. CSRD has been measured by developing CSRD index (CSRDJ) of 45 items from six CSR dimensions (employee, customer, community, environment, energy and investor). Financial performance has been measured by return on assets, return on equity and Tobin’s Q. Study considered firm age, firm size and financial leverage as control variables. After applying panel data regression, findings of the study show an increasing trend in the CSRD level during the study time period except 2019. Study also provides an evidence of significant positive association of CSRD with financial performance with all financial performance measures.

Keywords: Corporate Social Responsibility Disclosure Index (CSRDJ), Financial Performance (FP), Content Analysis, ROA, ROE, Tobin’s Q

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Introduction
Corporate Social Responsibility (CSR) recognized as a debatable area of business research in the developing and under developed countries especially from last decade. CSR refers to the assurance of giving back certain amount of money to community by the companies for taking advantage of the naturally available resources. It also involves the activities and practices undertaken by the businesses to protect the interest of stakeholders which may be directly or indirectly influenced by the business operations. Although most of the business organizations ultimately make attempt to maximize wealth of their investors but it becomes obligatory for these to be involved in the practices which leads to welfare of the community, society, employee and other stakeholders as a whole. Several empirical studies suggested that companies’ CSR activities have a great impact on their profitability and top level management of Indian listed companies have strong faith in that more investment towards CSR activities enhances firms’ financial performance (Shanmugam & DS, 2019).

Extensive business activities have greatly affected environment and stakeholders of business. Institutional regulations and legal constraints have enforced businesses to be accountable to stakeholders which are influenced by the business activities. Regulations and legal constraints are frequently revised by the regulatory bodies in order to protect and ensure rights of the stakeholders. (Ioannou & Serafeim, 2011).

Corporate Social Responsibility Disclosure (CSRD) Guidelines 2012, promulgate by the Security and Exchange Commission of Pakistan (SECP), which enforced public listed companies in Pakistan to publish their CSR related activities in the annual report. These guidelines also widen the CSR dimensions as most of the business organizations in order to show their CSR related activities are enforced to be indulged in CSR activities which lead to more research work in this area. Many researchers have attempted to examine relationship between CSR activities and profitability of the firms. There are different empirical finding about association between these. Some of the studies suggested positive association between CSR and firm performance. CSR activities have strong positive association with firm’s performance (Nyeadi, Ibrahim, & Sare, 2018). Customers of the renowned companies tend to pay more prices for the products because of their quality. Moreover labor employed in these companies have desire to work in reputed organization even at low wages which reduce the business operating cost (Roberts & Dowling, 2002). The expectations of the stakeholders from business organization to be socially and environmentally responsible increased tremendously from last decade or so especially in the developing countries. It may be because of more awareness of stakeholders through social media and more involvement of the regulatory bodies as they realized the potential benefits which might be attained through CSR activities. These regulatory institutions are constantly reviewing and refurbishing rules and guidelines for the CSR practices of the business organization. In most of the countries now, disclosure of financial information along with the investment in CSR activities in the annual audited reports become compulsory. Corporations have to disclose their accurate
and authentic CSR information to fulfill the needs and expectations of all the stakeholders. However, elements, dimensions and magnitude of information vary from company to company. Firm size and type of the industry have strong impact over the social and environmental disclosure information of the business (Jenkins & Yakovleva, 2006). Pakistan is a developing country having numerous social, environmental and economic challenges. Most of the firms in the country ignoring the relative importance of human resource development and do not provide proper training, working conditions, remuneration, health and safety measures. These are also blamed to be involved in the child labor practices. Customers of the corporations are also generally exploited and abused by the malpractices of the businesses, as they use poor quality and substandard products even after paying the reasonable price against the business products. General community as a whole is also affected adversely by the activities of the companies causing air, water and environmental pollution which ultimately decreasing the living standard of the people and increasing the health and medical costs. That is reason why various institutions in Pakistan especially the SECP is paying more attention and involvement in the policy making regarding the CSR related activities of the companies and their disclosure. The SECP launched Corporate Social Responsibility Disclosure (CSRD) guidelines 2012 for the listed companies in Pakistan which enforce these to disclose their CSR information in the annual reports to the shareholders. In developed countries there have been numerous empirical studies indicating association of CSR with firms’ financial performance. In developing countries however, more empirical studies to examine the association of these two have been found in the last decade or so. Ehasan & Kaleem (2012) examined the relationship between corporate social responsibility and financial performance of Pakistani manufacturing firms. Association between CSR and firm performance by considering firms from Pakistan textile sector has also been investigated by (Nadeem, et al, 2012). Study considers automobile sector of Pakistan which is one the fastest growing industries of the country. Firstly, study investigated the impact of CSRD guidelines over CSRD level of firms and then association of CSRD with financial performance has been examined. As recent studies have not been analyzed the post CSRD guidelines effects over CSRD level and its association with firm performance in this sector. This study intended to contribute in existing literature by considering post CSRD guidelines effect over CSRD level of firms from Pakistan automobile sector. In addition, study inquired relationship between CSRD and firms’ financial performance, as recent literature lacks studies considering this important sector. Furthermore, study has methodological contribution to measure CSRD through construction of CSR disclosure index by considering six important dimensions of the CSR.

There have been two basic questions of this study. Which are: What is the CSRD level in Pakistan automobile sector after the CSRD guidelines 2012? Is there any empirical association between CSRD and firms’ financial performance? Study main objectives
are to explore the level or extent of CSRD and association of CSR disclosure with financial performance and to develop managerial awareness to invest in CSR related activities. After the introduction section, literature review and tested hypotheses are given in section II, followed by research methodology in section III. Analysis and discussion on the relationship between variables are pondered in section IV

**Literature Review**

Several studies in the literature contributed to encounter association between CSR and firms’ financial performance in developed countries. Significance and importance of CSR in developing countries has gained popularity especially from last decade which induced most of the researchers to examine association between these two variables. This study also conducted to find association between these variables in the context of Pakistan automobile sector. Study is supported by two theories which are legitimacy theory and stakeholder theory. Legitimacy theory explains various reasons which induce the corporation to disclose their CSR related information. This theory mainly relies on subjectivity of the society about the operations of corporation. In response to the society’s judgments, companies involve in CSR practices in order to legitimate their practices to gain justification and sympathy from the society. Stakeholder theory describes various parties and stakeholders which might be directly or indirectly affected by the practices of the corporations. There have been various studies in the literature which used these theories to find association between CSR and firms’ financial performance.

Cuganesan et al. (2007) to investigate CSRD level applied legitimacy theory in the context of Australian food industry. There study suggested that the more famous corporations tend to disclose more CSR related activities in their annual reports in order to divert the social image and attention.

Dube & Maroun (2017) inquired CSR disclosure level to explain legitimacy theory after the strike events in South Africa. They concluded that firms which are facing more strikes tend to disclose more information related to CSR.

Theodoulidis et al. (2017) applied stakeholder theory to find out the association between CSR, strategy of the firms and financial performance in the context of tourism industry. Study provides a theoretical link and transition through which CSR is associated with firm performance and strategy.

Hamid & Ruhaya (2011) found that most of the Malaysian telecommunication companies focus on CSR activities related to the community as it is regarded as one of the most significant stakeholders. They concluded that in their time period of study, firms CSR disclosure practices are increased with the passage of time.

Aras, Aybars, & Kutlu (2010) by considering firms from Turkey for the period of 2005 to 2007 investigated association of CSR and financial performance by controlling firm size, risk, intensity and research and development. Their findings concluded a positive association between CSR and firm size while they found no relationship between CSR and firm performance.

Bnouni (2011) in the context of small and medium enterprises from France conducted a questionnaire based study by considering societal, environmental and social dimensions of the CSR by controlling firms age, firm size
and internationalization. He concluded a positive association between environmental and social dimensions of CSR and firm performance.


Ehsan et al. (2018) by developing CSR index and five sub indices, and by considering multi financial approach to measure CSR conducted the study by taking 170 Pakistani listed firms from various sectors. They concluded that firms disclosed more about CSR customer and CSR practices which are related to the stakeholders and less about health and education.

Khan, Khan & Senturk (2019) inquired relationship between CSR disclosure and board diversity. They considered a sample of 57 firms for the period of 2010 to 2017. Study concluded gender and diversities dimensions of the board diversity increases CSR disclosure level while age diversity indicated a negative association with CSR disclosure.

Ahmad & Khan (2019) by considering SME’s conducted an empirical study to disclose association of CSR with firm performance. Interviews form the managers were conducted to gather data. Findings of study indicated that firms are involved in CSR practices informally. CSR has not been considered as much significant to make strategic decisions. Results indicated that most of the firms generally pay attentions on issues related to employees health and safety, community welfare. Manufacturing firms are not paying any attention in making environmental policies and employees training. The reasons behind the success of these is to provide better products to the customers at reasonable prices.

Lin, Ho & Sambasivan (2019) by considering corporate political activities as moderator made an attempt to find out association of CSR and firm performance. The results of study concluded an insignificant association between CSR and performance. Corporate political activities moderated negatively in the rea lationship between CSR and firm performance.

Javeed & Lefen (2019) investigated association of CSR and firms’ financial performance in Pakistan’s context. They considered chief executive officer power and ownership structure as moderator. Results of study indicate significant positive relationship between CSR and financial performance.

Mohd Sofian & Muhamad (2019) reviewed articles which provide information regarding CSR dimensions (e.g., Abu Bakar & Md Yusof, 2016; Franzoni & Allali, 2018), CSR indexes (e.g., Hidayat & Alhur, 2016), CSR dimensions and elements (Tarique, Ahmed, Hossain, & Momen, 2018), CSR dimensions and indices (Platonova, Asutay, Dixon, & Mohammad, 2018) and CSR dimensions, elements and indices (Alamer, Salamon, Qureshi, & Rasli, 2015).

Firms and enterprises all around the globe have been battling hard to increase and show their Corporate Social Responsibility (CSR) performances. From becoming a sponsor or involving in charities, taking part in the community empowerment or environmental care, to paying more attention in health and education improvement of the surroundings and so on are the various typical forms of CSR performances. Hogan, Olson, & Sharma
(2014) highlighted Freeman’s (1984) idea in which CSR is developed from the stakeholder theory. Based on the theory, firms are required to ensure the welfare of their stakeholders as one of their obligations. Kanwal, Khanam, Nasreen, & Hameed (2013) showed evidence where CSR activities enhance both reputation and profitability. Based on the literature, following are the hypotheses of study:

H1: “There is significant positive relationship between CSRD and return on assets”.

H2: “There is significant positive relationship between CSRD and return on equity”.

H3: “There is significant positive relationship between CSRD and Tobin’s Q”.

**Research Methodology**

This study is based on quantitative method applying secondary source of data for the period of 2013 to 2019. Firms in automobile sector of Pakistan are sampled for analysis. Source of data is firms’ annual reports. CSRD is measured using content analysis index. Three steps are taken to develop CSRD index. Firstly, CSR dimensions have been constructed using the guideline from Haniffa and Cooke (2005), Aras and Kutlu (2010), Khan (2010) and Ehsan et al. (2018). Location, theme and type of CSR reporting have been used to classify the information taken from these studies. The place which provide placement of data like directors report, CEO report, corporate governance section and CSR section is termed as location. Employee, customer/product, community, environment, energy and investor are the extents of the CSRD. Secondly, operationalization of CSR in the form of checklist is prepared given in Appendix A. Kinder, Lydenberg and Domini (KLD) database provides guideline for the checklist. KLD covers US listed firms and their related CSR themes. Therefore, the themes related to the both developed such as Abbott & Monsen (1979) and developing countries like Xu, Liu & Huang (2014), Malik & Kanwal (2018) and Ehsan et al. (2018) fulfilling the requirements of Pakistani business conditions are considered. A CSR list of forty-five items is tabled based in the comprehensive review of locations of annual reports of two large scale and two small scale firms. Detail of operationalized items for employee, customer/product, community, environment, energy and investor is given in Appendix A. Lastly, CSRD index is measured using un weighted index methodology employed by Haniffa and Cooke (2005) and Ehsan et al. (2018) in the form of dichotomous scale i.e. “1” is assigned if item is disclosed and “0” if that item is not disclosed. CSR index is measured adopting the following calculation after aggregating CSR score for all its dimensions.

\[ CSRD_{i} = \sum_{i=1}^{n} V_{it} / N_{i} \]

Where,

- \( CSRD_{i} \) = CSR Disclosure Index of \( i^{th} \) firm
- \( N_{i} \) = sum of CSR objects
- \( V_{it} \) = dichotomous value given to CSR object

Equations given below explains the descriptions of the concepts of the study where financial performance indicators like Return on Assets (ROA), Return on Equity (ROE) and Tobin’s Q (TBQ) are taken as explained variables and CSRD index along with age, size and leverage is explaining the possible causal relation. ROA is measured as scaling the net income to total resources of the firm; ROE is calculated as scaling net income
to total equity; TBQ is scale of total market value of equity to replacement value of resources of the firm; CSRDI is explained above; Size is taken as log of total assets; Age is number of the years since firm exists; LEV explains the financial leverage of the firm. Panel regression models are applied to measure the impact association between the given concepts.

Model 1: CSRD index and ROA

\[ \text{ROA}_{it} = \beta_0 + \beta_1 \text{CSRDI}_{it} + \beta_2 \text{SIZE}_{it} + \beta_3 \text{AGE}_{it} + \beta_4 \text{LEV}_{it} + \varepsilon_{it} \] .................(1)

Model 2: CSRD index and ROE

\[ \text{ROE}_{it} = \beta_0 + \beta_1 \text{CSRDI}_{it} + \beta_2 \text{SIZE}_{it} + \beta_3 \text{AGE}_{it} + \beta_4 \text{LEV}_{it} + \varepsilon_{it} \] .................(2)

Model 3: CSRD index and TBQ

\[ \text{TBQ}_{it} = \beta_0 + \beta_1 \text{CSRDI}_{it} + \beta_2 \text{SIZE}_{it} + \beta_3 \text{AGE}_{it} + \beta_4 \text{LEV}_{it} + \varepsilon_{it} \] .................(3)

Data Analysis and Discussion

All variables of statistically summarized in table 2. With the given number of observations from automobile sector of Pakistan, firms on average are generating positive return with respect to ROA and ROE over the period. However, minimum and maximum values of ROA and ROE depict a negative and positive return which is indication of volatility between the returns. Tobin Q ratio explains the performance of the firm with respect stock market. Average value of tobin q is greater than one which means firms on average have more market worth than replacement cost. CSRDI demonstrate that every firm of the automobile sector is disclosing CSR activities

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Standard Deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROA</td>
<td>126</td>
<td>0.107</td>
<td>0.105</td>
<td>-0.21</td>
<td>0.531</td>
</tr>
<tr>
<td>ROE</td>
<td>126</td>
<td>0.205</td>
<td>0.276</td>
<td>-0.596</td>
<td>1.791</td>
</tr>
<tr>
<td>TBQ</td>
<td>126</td>
<td>1.413</td>
<td>1.211</td>
<td>0.07</td>
<td>7.052</td>
</tr>
<tr>
<td>CSRDI</td>
<td>126</td>
<td>0.584</td>
<td>0.225</td>
<td>0.133</td>
<td>0.933</td>
</tr>
<tr>
<td>LEV</td>
<td>126</td>
<td>0.936</td>
<td>1.58</td>
<td>-2.869</td>
<td>10.099</td>
</tr>
<tr>
<td>SIZE</td>
<td>126</td>
<td>6.84</td>
<td>5.55</td>
<td>5.464</td>
<td>7.913</td>
</tr>
<tr>
<td>AGE</td>
<td>126</td>
<td>37.944</td>
<td>14.326</td>
<td>9</td>
<td>66</td>
</tr>
</tbody>
</table>

Table 3 indicates descriptive statistics results of CSRD level during 2013 to 2019. The total number of observations is 18 indicating the total sample size each year is equal. The mean value of the CSRD index with the exception of 1 point, in 2013 is 0.543. It’s the lowest score of this season. In 2014 there is a 2.40% increase in the mean value of the CSRD index. Similarly the highest increase of 5.21% in the used CSRD was achieved in 2015. This increase was followed by a gradual increase of 1.20% and 0.84% and 2.34% in subsequent years 2016, 2017 and 2018 respectively. There is a complete increase of 10.86% on the CSR disclosure index from 2013 to 2019. SECP CSRD guidelines for SECP could be a potential cause for this increase. Descriptive statistical results reveal an increasing trend in the CSRD index throughout 2013 to 2018. However, it has been reduced by 1.49% in
2019 from a value of 0.6111 to 0.602, but still greater than the total CSR value of 0.584.

Table 3: Descriptive Statistics (CSR D Level) 2013-2019

<table>
<thead>
<tr>
<th>Year</th>
<th>N</th>
<th>CSRD Mean</th>
<th>Standard Deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>18</td>
<td>.543</td>
<td>.233</td>
<td>.133</td>
<td>.866</td>
</tr>
<tr>
<td>2014</td>
<td>18</td>
<td>.556</td>
<td>.233</td>
<td>.133</td>
<td>.911</td>
</tr>
<tr>
<td>2015</td>
<td>18</td>
<td>.585</td>
<td>.228</td>
<td>.155</td>
<td>.888</td>
</tr>
<tr>
<td>2016</td>
<td>18</td>
<td>.592</td>
<td>.23</td>
<td>.155</td>
<td>.933</td>
</tr>
<tr>
<td>2017</td>
<td>18</td>
<td>.597</td>
<td>.227</td>
<td>.177</td>
<td>.888</td>
</tr>
<tr>
<td>2018</td>
<td>18</td>
<td>.611</td>
<td>.228</td>
<td>.177</td>
<td>.911</td>
</tr>
<tr>
<td>2019</td>
<td>18</td>
<td>.602</td>
<td>.222</td>
<td>.177</td>
<td>.933</td>
</tr>
</tbody>
</table>

Table 4 reveals the intelligent combination of study variables. The results show that there is a strong positive correlation between CSR. Explained variables of the study have strong relationship with each other which depict the robust measure. CSR DI has positive significant relation with all the performing indicators of the firm. The CSR has a durable association with the ROA, ROE and Tobin's Q which indicate the possible influence of the CSR on all financial instruments of the firm. ROA and size have a optimistic relationship with a mutual value of 0.376. CSR and size have a respectable 0.70 correlation between each other. There is a likelihood that multicollinearity may exist between independent variants. Size and age have a good 0.37 relationship with each other.

There are many theories to consider in order to make the most of the retrospective analysis. One of these conventions is that there is no high correlation between descriptive variables. If there is a significant correlation between independent variance this problem may exist causing retardation reducing the accuracy of the measurements which ultimately weakens the results of the regression model. Multicollinearity was tested to indicate that the descriptive variables (CSRI, size, scale and solid age) were not very consistent.

Table 4: Correlation Matrix

<table>
<thead>
<tr>
<th>Variable</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
<th>(7)</th>
</tr>
</thead>
<tbody>
<tr>
<td>(1) ROA</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(2) ROE</td>
<td>0.856*</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(3) TBQ</td>
<td>0.727*</td>
<td>0.650*</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(4) CSRDI</td>
<td>0.543*</td>
<td>0.469*</td>
<td>0.353*</td>
<td>1.000</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(5) SIZE</td>
<td>0.376*</td>
<td>0.366*</td>
<td>0.103</td>
<td>0.704*</td>
<td>1.000</td>
<td></td>
<td></td>
</tr>
<tr>
<td>(6) LEV</td>
<td>-0.010</td>
<td>0.109</td>
<td>0.035</td>
<td>0.188*</td>
<td>-0.028</td>
<td>1.000</td>
<td></td>
</tr>
<tr>
<td>(7) AGE</td>
<td>0.248*</td>
<td>0.190*</td>
<td>0.061</td>
<td>0.194*</td>
<td>0.370*</td>
<td>-0.023</td>
<td>1.000</td>
</tr>
</tbody>
</table>

* at 5% Significance level
Researchers have suggested inflation and tolerance to avoid this problem. There is possibility of multi-collinearity among the predictors which may cause problem in the regression analysis. Variance Inflation Factor (VIF) analysis is conducted and summarized in Table 5. The higher the value of VIF, the higher chance will be co-linearity among the predictors. It is suggested that VIF having value greater than 10 assert high collinearity in Table 5 shows the VIF values and the tolerance for descriptive variables. The results revealed that VIF ranged from 1.09 to 2.35 and tolerance was higher than 0.42. So many interactions are not found between independent variables.

<table>
<thead>
<tr>
<th></th>
<th>VIF</th>
<th>1/VIF</th>
</tr>
</thead>
<tbody>
<tr>
<td>SIZE</td>
<td>2.346</td>
<td>.426</td>
</tr>
<tr>
<td>CSRI</td>
<td>2.189</td>
<td>.457</td>
</tr>
<tr>
<td>AGE</td>
<td>1.17</td>
<td>.855</td>
</tr>
<tr>
<td>LEV</td>
<td>1.095</td>
<td>.914</td>
</tr>
</tbody>
</table>

The Hausman trial of a static outcome model (FEM) or a random outcome model (REM) was used to determine the suitability of FEM or REM retrospective models. The null hypothesis shows that there are no differences in individual outcomes. Another hypothesis suggests that there are differences in individual outcomes. The results of this study showed that the randomized modeling model was suitable interpretation of the results in case of ROA and ROE models while fixed effect is suggested for Tobin Q model. The regression results presented in Table 6 show a positive correlation between the CSR indicator and financial performance measured by the ROA at a key level of 1% (model 1). The findings of the trial supported hypothesis H1 which means positive interactions between CSR and ROA. It means that the ROA of the automotive sector in Pakistan has been increased by more involvement in CSR activities. The model shows a total value of R- square 31.9% indicating the variance defined in the ROA due to the independent variance variance. The F values of the model are chi ($\chi^2$) = 19.19 which is more important than the value of 0.001 indicates the absolute accuracy of the model. These findings are based on findings managed by Kooskora, Juottonen, & Cundiff (2019).

The results of the retrospective model 2 (Table 6) are produced using randomized model after controlling the heteroscedasticity problem. The outcome proclaims that CSR effect the ROE performance of the firm having significant value at 5%. The outcomes are consistent with the Choi et al (2010). Hypothesis H2 is also supported by these results. A total of 20.8% of the ROE was defined as the mean variance in the description. The F values of the model are chi ($\chi^2$) = 10.58 important to P value = 0.03 less than 0.05 indicating that the model is
正确。CSR实践建议增加汽车行业的ROE。汽车工业是巴基斯坦的关键行业之一。聚焦于CSR活动，该行业期望能够增加其对国家财政的贡献。

结果表明，模型3是在考虑FEM并且避免异方差性的影响后得出的。回归结果（表6）显示CSR与股市表现（即Tobin's Q）之间存在正相关。这与先前的研究结果一致。CSR也正且显著影响汽车行业在巴基斯坦的股市表现。这与Ghelli（2013）的研究结果一致。参与度与TBMQ的联系基本没有意义。有不理智的规模与TBMQ的联系意味着不理智的规模增加会带来负面的性能变化。这可能是由于过度的价格或者股东在业务中的有限参与。年龄更老则具有相对更显著的相关性，P值为0.052略低于0.05。理想模型条件下的正向平衡也适用于此模型，F值为6.023，P值为0.005。解释的全部方差为27.3%归因于独立变量的变异性。

结论
此研究旨在调查2013-2019年期间巴基斯坦汽车行业的CSR披露水平和财务表现。此研究使用描述性统计学方法来获得CSR披露（2012）指南所提出的标准。研究的主要目标是确定这些指南后面的CSR质量。结果表明，CSR实践有助于汽车行业的ROE。汽车是巴基斯坦的关键产业之一。聚焦于CSR活动，该行业期望能够增加其对国家财政的贡献。结果表明，当考虑FEM并避免异方差性影响时，模型3能够产生结果。回归结果显示，CSR与股市表现（即Tobin's Q）之间存在正相关。这与先前的研究结果一致。CSR也正且显著影响汽车行业在巴基斯坦的股市表现。这与Ghelli（2013）的研究结果一致。参与度与TBMQ的联系基本没有意义。这可能是由于过度的价格或者股东在业务中的有限参与。年龄更老则具有相对更显著的相关性，P值为0.052略低于0.05。理想模型条件下的正向平衡也适用于此模型，F值为6.023，P值为0.005。解释的全部方差为27.3%归因于独立变量的变异性。

表6: 多元回归结果

<table>
<thead>
<tr>
<th>变量</th>
<th>模型1</th>
<th>模型2</th>
<th>模型3</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>随机效应模型</td>
<td>随机效应模型</td>
<td>固定效应模型</td>
</tr>
<tr>
<td>CSRDI</td>
<td>0.371***</td>
<td>0.776**</td>
<td>6.555**</td>
</tr>
<tr>
<td></td>
<td>(2.76)</td>
<td>(1.96)</td>
<td>(2.42)</td>
</tr>
<tr>
<td>AGE</td>
<td>0.002</td>
<td>0.003</td>
<td>0.123*</td>
</tr>
<tr>
<td></td>
<td>(1.32)</td>
<td>(0.79)</td>
<td>(2.09)</td>
</tr>
<tr>
<td>LEV</td>
<td>-0.006</td>
<td>0.029</td>
<td>-0.125</td>
</tr>
<tr>
<td></td>
<td>(0.720)</td>
<td>(0.69)</td>
<td>(1.46)</td>
</tr>
<tr>
<td>SIZE</td>
<td>-0.061</td>
<td>-0.075</td>
<td>-3.615***</td>
</tr>
<tr>
<td></td>
<td>(1.17)</td>
<td>(0.51)</td>
<td>(3.46)</td>
</tr>
<tr>
<td>Constant</td>
<td>0.254</td>
<td>0.134</td>
<td>17.765***</td>
</tr>
<tr>
<td></td>
<td>(0.91)</td>
<td>(0.18)</td>
<td>(3.77)</td>
</tr>
<tr>
<td>N</td>
<td>126</td>
<td>126</td>
<td>126</td>
</tr>
<tr>
<td>R-square</td>
<td>0.319</td>
<td>0.208</td>
<td>0.273</td>
</tr>
<tr>
<td>F-test value</td>
<td>19.19</td>
<td>10.58</td>
<td>6.023</td>
</tr>
<tr>
<td>P</td>
<td>0.001</td>
<td>0.032</td>
<td>0.005</td>
</tr>
</tbody>
</table>

*** p<0.01, ** p<0.05, * p<0.1

Conclusions
此研究旨在调查2013-2019年期间巴基斯坦汽车行业的CSR披露水平和财务表现。此研究使用描述性统计学方法来获得CSR披露（2012）指南所提出的标准。研究的主要目标是确定这些指南后面的CSR质量。结果表明，CSR实践有助于汽车行业的ROE。
showed a growing trend throughout the CSRD level. The second objective of the study was to find a link between CSRD and financial performance. The results of the CSRD index integration and firm performance assert strongly that CSR practices of the firms listed in automobile sector of Pakistan have been influencing all the performing areas desirably and positively which push the firms to proactively indulge in CSR acts to increase profitability of the firms.

Content analysis index method is used in the study which prepared a checklist of forty-five items to make reference from six dimensions of CSR lists. This method may involve submitting code. In addition, the study focused on only one field. Continuing to learn another CSR measurement method can also be used. Volumetric content analysis such as word count, sentences or paragraph counts may be used to obtain different results. Increasing the sample size and other CSR sizes as CSR providers, correct business methods and additional value can also be considered in further studies.

References
Interdisciplinary Research in Accounting (APIRA) Conference (pp. 8-10).


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