

Impact of Corporate Social Responsibility Disclosure on Organizational Performance of Metal Quarries in Colombo District

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Abstract

Rapid growth of infrastructure development of Sri Lanka increases the demand for the metal. Therefore even in the fast urbanizing Colombo district has to maintain and increase the production of metal from the quarries. It has led to community-quarry site conflicts. In this situation corporate social responsibility is used to keep moving smooth of organisational performance of the quarry sites. The aim of this research is to find the best way to utilize corporate social responsibility for Colombo district quarries to get their organisational performance high. Using 40 quarry site managers, survey was conducted to find their organisational performance level and involvement level of five independent corporate social responsibility criteria: economic, legal, environmental, ethical and philanthropic. It has shown that the philanthropic criterion of corporate social responsibility has the highest significance for positive impact for organisational performance, while next is economic criterion of corporate social responsibility. The corporate social responsibility activities, which are based on other three criteria, have no impact on organisational performance of Colombo district quarries. Present practice of corporate social responsibility activities are highly philanthropic basis and very less on economic criteria basis compared to all other four criteria. Therefore quarry industry of Colombo district has to focus on corporate social responsibility economic criteria while continuing corporate social responsibility philanthropic criteria on first place. It is expected that this study will contribute to the knowledge area of corporate social responsibility initiatives in quarry industry of Colombo district, Sri Lanka.

Keywords: Community conflicts, Economic criteria, Philanthropic criteria, Quarry management

1. Introduction

Infrastructure development of Sri Lanka is in a rapid growth. (eg: expressways, buildings and Port city). The requirement of the metal for the projects is high ever before. It has fulfilled by the metal supply by the local metal quarries. According to the data of Geological Survey and Mines

Bureau(GSMB), Sri Lanka there are 100+ "A" grade Industrial Mining Licence (IML) owned metal quarries in Sri Lanka. Whereas there are 1500+ and 1000+ IML B grade and IML C grade metal quarries, respectively.

The production rate increment and opening new quarries become the solution to meet the requirement. The smooth functioning of the quarries is

mainly disturbed by the commitment decrease of the bottom level employees and conflicts between the quarries owned companies and the community. Legal proceedings related to the opening and functioning of the metal quarries are not sufficient to maintain the community conflict free zone at metal quarries. The relationship with the community and proactive approaches for solving conflicts are must to sustain the mining business. There are no perfect solutions for most of the community issues such as air pollution, noise pollution, disturbances for the day today life ...etc, only those issues minimization. Keeping the community allowing the functioning of the metal quarries is totally winning the community people.

The bottom level employees commitment towards the production of the metal quarries is another facet of the same issue as majority of the bottom level employees are from the community around the metal quarry site. This situation directly affects the development activities of the country. When it comes to Colombo District, the situation is further worst. The initiatives of the Corporate Social Responsibility (CSR) in the metal quarry sector of Sri Lanka are not just to building their brand image in the society but more focussing employee attraction, employee continuity, employee commitment and neutralizing the community conflict.

Although there is a clear objective on practising CSR mentioned above, achieving those objectives in effective manner by the present practise of CSR in the metal quarry sector of Sri Lanka is questionable. The impact of the present CSR initiatives of the metal quarry sector on the community and the bottom level employees has to be

explored and redefine the strategic CSR initiatives to get increase employee commitment and neutralise the community conflicts.

This situation has positively answered by some of the developing countries such as Indonesia[1], Argentina [2] and India [3] by management and social research through screening their local contexts relevant to CSR practice. The main objectives of this research were to identify how CSR influences the Organizational Performance (OP) in the Metal Quarry sites in Colombo District, and to determine the extent to which CSR is used by the Metal Quarry Sector in Colombo District.

2. Methodology

2.1 Research Design

According to Okan T in 2015[4] the following criteria have been identified in measuring the CSR in the mining sector based on the CSR pyramid, which was presented by Carrol in 1991[5].

1. Economic Criteria
2. Legal Criteria
3. Environmental Criteria
4. Ethical Criteria
5. Philanthropic Criteria

In the researches done in developing countries related to the CSR impact on OP, mainly focused on financial Performance. Therefore in this research for metal quarries of Colombo district, measurements from questionnaire survey will be considered in terms of OP for testing the hypothesis.

The following hypothesis were tested in the empirical study for :

H1: CSR Economic Criteria has a positive Impact on OP of metal quarries of Colombo District

H2: CSR Legal Criteria has a positive Impact on OP of metal quarries of Colombo District

H3: CSR Environmental Criteria has a positive Impact on OP of metal quarries of Colombo District

H4: CSR Ethical Criteria has a positive Impact on OP of metal quarries of Colombo District

H5: CSR Philanthropic Criteria has a positive Impact on OP of metal quarries of Colombo District

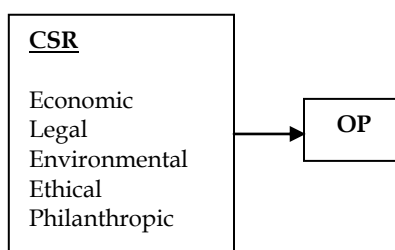


Figure 1 - Conceptual Model

2.2 Definitions of Variables

CSR is a management concept whereby companies integrate social and environmental concerns in their business operations and interactions with their stakeholders. CSR is generally understood as being the way through which a company achieves a balance of economic, environmental and social imperatives (Triple-Bottom-Line Approach), while at the same time addressing the expectations of shareholders and stakeholders. [3]

Yakovleva in 2010 [2] defines five components of CSR as follows;

1. Legal responsibilities: To do what is required by law
2. Philanthropic responsibilities: To do what is desirable for the society
3. Environmental responsibilities: To do what is safe for the environment
4. Ethical responsibilities: To do what is right, just and fair
5. Economic responsibilities: To do what is essential for economic survival of the company, including the contribution to economic development

OP encompasses three specific areas of firm outcomes: financial performance (profits, return on assets, return on investment, etc.); product market performance (sales, market share, etc.); and shareholder return (total shareholder return, economic value added, etc.) [6].

2.3 Data Collection

Two data collection methods were used to achieve the objectives and purposes of this study

1. interview questions
2. survey questionnaire

The sample of this study will consist of 40 quarry managers (one from each quarry) in Colombo District. The sample represents the quarries in Colombo District with Industrial Mining Licence (IML) A and B categories (based on the classification presented by GSMB). A three-year period from 2013 to 2015 was chosen for this study. In 2015 there were 108 quarries with either IML A or IML B in Colombo District.

This sample was yield around 40 responses from managers for questionnaires, while interviews with 5 managers (out of 40 selected quarries). Semi-structured interviews was conducted to gain a deeper understanding of the quantitative data to be gathered and analysed [7]. Interviews was conducted taking an estimated time of between 20 and 40 minutes. It was used to check the contexts with the previous studies which has to be utilized under survey questionnaires. The interviews were used to modify the criteria for the measurements of CSR and OP in the survey questioner based on the local context.

Simple random sampling of the population was considered an appropriate method for this study to

create an equal probability for the Colombo district each quarry.

Brett in 2000 [8] suggests several approaches, including economic return, survival and excellence concepts, can be used for research purposes to measure OP under given circumstances. He argues, however, the excellence concept to be the most appropriate in today's world. Excellence is a multi-dimensional concept, which assumes high intensity and balanced performance by leaders over time on a set of goals/criteria will yield excellent results. This approach is well suited for local quarry industry comparisons, as it does not include financial indicators to comparison. Therefore the measures of OP were adopted from Sharma[9] EXCEL scale and Tanner's [10] KEY OUTCOME Scale.

The measures of CSR criteria were adopted from Okan et al.'s CSR criteria framework for mining sector 2015 [4] In the questionnaire, 5-point Likert-type scale was used for the measurement of the constructs.

2.4 Data Analysis and Interpretation

Reliability test was carried from answers of the respondents and Cronbach's Alpha for all 6 scale variables were above 7.00. It shows the reliability and internal consistency of the measurement scales.

This study was used descriptive statistics in order to test collected data in terms of distribution and normality,

and to provide information about levels of CSR disclosure for these companies.

The correlation analysis was used to explore the relationship between variables that have been used in this study.

Chen in 2016 [13] has done regression analysis of CSR and organizational performance. This research was also employed the following regression model to examine the proposed hypothesis. To examine the link between CSR disclosure and OP, the study was utilised the following regression model.

$$OP = b_1 \text{Econ} + b_2 \text{Legal} + b_3 \text{Envir} + b_4 \text{Ethic} + b_5 \text{Phil} + b_0 \dots\dots\dots(1)$$

Where,

Econ=Economic,

Legal= Legal,

Envir=Environmental,

Ethic=Ethical and

Phil=Philanthropic Criteria.

3. Results

Table 1 - Cronbach's Alpha for scale variables

Variable	Cronbach's Alpha	Number of items
OP	0.710	13
Econ	0.826	4
Legal	0.799	4
Envir	0.776	4
Ethic	0.702	4
Phil	0.803	5

Table 2 - Descriptive Statistics - OP (mean M and Standard Deviation SD)

Measurement	M	SD.
1. The firm encourages employees to develop new ideas	2.13	0.939
2. The firm has a small staff that delegates authority efficiently	2.98	1.143
3. The firm's top management creates an atmosphere that encourages creativity and innovativeness.	1.80	0.791
4. The company's values are the driving force behind its operation	2.83	0.903
5. The firm is flexible and quick to respond to problems	1.83	0.874
6. The firm has a small, but effective management team	3.10	1.150
7. The firm truly believes in its people	2.65	1.051
8. The firm considers after-the sale service just as important as making the sale itself	2.48	0.847
9. The firm believes in experimenting with new products and ideas	2.93	1.118
10. The company believes that listening to what consumers have to say is a good skill to have	2.33	0.829
11. Has a strong financial performance	3.70	1.018
12. Achieves its goals	3.85	0.893
13. Has a high competitive position	3.00	0.961

Table 3 - Descriptive Statistics - Economic Criteria

Measurement	M	SD
To create employment and invest in human capital: To provide jobs, train, bring occupations for people by giving priority to local community	2.53	0.816
To contribute to the through payments to the state: Tax and usufruct payments to the state.	3.03	1.230
To stimulate the local market and to prevent migration: Multiplier effect, shopping from local shops, rent vehicles from local community. To prevent young population's migration to big cities by creating employment.	2.38	0.868
Profitability: The contribution of the company to the state economy and to itself by its operations.	2.88	0.791

Table 4 - Descriptive Statistics - Legal Criteria

Measurement	M	SD.
To comply with the EIA report and relevant legislation: To ensure compliance with the standards of EIA reports and regulations for waste water basins. To adapt to the premise legal conditions during the inspections of the agencies.	4.00	0.751
To comply with occupational safety law: To pay attention to the usage of necessary protective equipment (e.g. helmet, boot, waistcoat, mask). To show sensitivity about workplace safety rules.	3.30	0.992
Not to operate with uninsured workers: Not operate with uninsured workers.	2.55	0.959
To be in communication with government agency authorised in inspection: To be in communication with government agency officers. To provide mutual feedback. To take account criticisms from government agencies.	2.03	1.025

Table 5 - Descriptive Statistics - Environmental Criteria

Measurement	M	SD.
Not to adversely affect air, water, and soil components: Not to create air pollution. To pay attention to filtering and dust emission. To minimize environmental damages resulting from waste water, waste water basins, and purification plants. Not to damage water resources.	2.60	0.709
Not to impact negatively on the social aspects: Not to cause destruction of roads and infrastructure. Not to harm agriculture and animal husbandry. To care about recycling. Not to have a negative health effect on products of food production enterprises. Not to cause noise pollution	1.95	0.714
Not to negatively impact the ecosystem: Not to damage forest, vegetation, wildlife and endemic species. Not to cause climate change.	3.03	0.800
To minimize the possible impacts of chemicals and wastes on environment and public health: To minimize environmental damages from waste water, waste water basins, and purification plants. To care about recycling.	3.50	0.906

Table 6 - Descriptive Statistics - Ethical Criteria

Measurement	M	SD.
Transparency and continuous reporting: To prepare EIA reports and disclosure the results. To be open to stakeholders on activities. To arrange meeting in places accessible to stakeholders. Not to engage in corruption. To be able to monitor activities with cameras. To report activities continuously.	3.20	0.791
To be environmentally and socially conscious beyond the legal requirements in the layout of the mining site and making forestation and landscape maintenance activities. To create agricultural areas and facilitate cultivation of agricultural products by local community.	1.35	0.533
The presence of labour unions: To protect worker rights, unionization.	4.08	0.730
Corporate governance: Compliance with corporate governance principles, making necessary notifications to stakeholders continuously.	2.35	0.662

Table 7 - Descriptive Statistics - Philanthropic Criteria

Measurement	M	SD.
To support local social services: Services in areas education, health, arts etc.	2.18	1.174
Social benefits for employees: To provide housing and social facilities.	2.45	1.739
Charities for various segments of society: Scholarships, sponsorships etc.	3.00	1.617
Activities aimed to eliminate poverty and support local businesses: To enhance handicrafts, self employments.	3.70	1.418
To contribute to city identity: protect/ restor of historical/ religious places.	4.20	1.181

Table 8 - Descriptive Statistics - All Variables

Variable	Mean	Std. Deviation
Organizational Performance	2.7365	0.45853
CSR-Economic Criteria	2.7000	0.76418
CSR-Legal Criteria	2.9688	0.74073
CSR-Environmental Criteria	2.7688	0.60814
CSR-Ethical Criteria	2.7438	0.49835
CSR-Philanthropic Criteria	3.1050	1.07940

Table 9 - Correlations of all variables (PC= Pearson Correlation)

		OP	Econ	Legal	Envir	Ethic	Phil
Econ	PC	0.377(*)					
	Sig. (2-tailed)	0.017					
Legal	PC	0.280	0.184				
	Sig. (2-tailed)	0.080	0.256				
Envir	PC	0.252	0.009	-0.006			
	Sig. (2-tailed)	0.117	0.956	0.972			
Ethic	PC	0.323(*)	0.285	0.138	0.207		
	Sig. (2-tailed)	0.042	0.074	0.394	0.201		
Phil	PC	0.688(**)	0.080	0.177	0.231	0.192	
	Sig. (2-tailed)	0.000	0.625	0.274	0.151	0.235	

Correlation is significant at the * 0.05 level/ ** (2-tailed)

Table 10 - Model summary

R	R ²	Adj. R ²	Std. Error
0.779	0.607	0.549	0.30804

Table 11 - Coefficients of variables

Variables	Regression Coefficient	t-value	(p-value)
Constant	0.860	2.279	0.029
Econ	0.169	2.473	0.019
Legal	0.067	0.971	0.338
Envir	0.068	0.800	0.429
Ethic	0.085	0.794	0.432
Phil	0.258	5.357	0.000

Table 12 - Hypothesis summary

No.	Level of Significance	Status
H1	+vely Sig. at 0.05 level	Accepted
H2	Not Significant	Rejected
H3	Not Significant	Rejected
H4	Not Significant	Rejected
H5	+vely Sig. at 0.01 level	Accepted

The formulated model is as below,

$$OP=0.169Econ+0.067Legal+0.068Envir + 0.085Ethic + 0.258Phil + 0.860$$

4. Discussion

In Sri Lanka Colombo district context, CSR-Philanthropic criteria comes more focused dimension of the CSR disclosure with highest significance to the organisational performance. It is due to the quarry operation at urbanized district, need more focused on contribution to the city identity-protection and restoration of historical

and religious places. Next to the philanthropic criteria, economic criteria should be concerned in CSR practice as it has significant positive relationship. These result got positive backups by the many studies previously had done [4] by their analysis of importance levels of main and sub criteria of CSR by mining companies view point.

By rejecting of H2, it also gives an important factor on CSR practice as legal criterion is not important considering the organisational performance. Since the CSR legal criteria focuses work place safety, follow up of EIA reports as CSR activity has no influence on the OP of the quarry sites of Colombo district.

Even though the other global researches show a significant relationship between the CSR-environmental criteria and OP, this research which particularly address quarry sites of Colombo district reveals that there is no such significant relationship between them. The reason is urbanized area environment is already polluted by other means, so restoration is rare as it cannot make long term sign for the community in continuously polluting nature. A CSR-ethical criterion also has no significant relationship which shows that the

community/ employees are not concerning transparency of work, pre-notifications and top level labour rights. Finding the present practice of CSR activities of Colombo district is another objective of this research. It was found in this research that the quarries of Colombo district are highly philanthropic basis and, very less on economic criteria basis compared to all other four criteria.

5. Conclusions

Based on a questionnaire survey on Colombo district metal quarries, it was found that, there is a significant impact from philanthropic criteria and economic criteria focused CSR on their OP, and no significant impact from legal criteria, environmental criteria and ethical criteria focused CSR.

The results of the research reveal that next to the philanthropic criteria, economic criteria should be concerned in CSR practice as it has significant positive relationship. But the present practice of CSR activities of Colombo district quarries are very less on economic criteria basis compared to all other four criteria. Therefore quarry industry of Colombo district has to more focus on CSR economic criteria, while continuing CSR philanthropic criteria on first place. The key feature of the two criteria-philanthropic and economic is, they address the local community and the employees directly, in other words direct financial benefits for them. Literature shows that the results of this sort of researches are highly geographical location, time period and focused industry specific.

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