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CONSTRUCTION INDUSTRY FOCUS TOWARDS SUSTAINABILITY THROUGH CORPORATE SOCIAL RESPONSIBILITY

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Abstract— Amidst the growing number of adverse impacts of construction industry, sustainability and sustainable development has become a ground-breaking challenge in the world in mitigating disasters related to build environment. Thus, Corporate Social Responsibility (CSR) will be an effective tool to introduce resilience in disaster management practices of construction stakeholders on their business decisions taken within the construction industry. Hence, this study has focused to assessing the contractors' contribution towards sustainability in relation to their CSR activities within their business environment and business process. The results revealed that there is a considerable gap in the prevailing practice and required practice in the areas of CSR related to business environment and CSR related to business process although CSR related to philanthropic activities in the industry was at a high level.

Keywords— Corporate Social Responsibility, Construction Industry, Sri Lanka

I. INTRODUCTION

In the present era of globalization; construction industry makes a noteworthy contribution to a country's economy with the industry encompassing a range of businesses including constructors, clients, material producers, professional services and construction enterprises, amongst others (Shen *et al*, 2010). Thus; through its processes from the design stage to occupying and demolishing stage, its impact towards the environment and society is significant (Fewings, 2009; Murray and Dainty, 2009). Construction is an interwoven industry in the sectors of economy, environment and society; in a broader sense sustainable development. Also it's a growing business entity with many stakeholders. Witt *et al* (2014) stated "The construction industry is central to the promotion of disaster resilience through

building procurement, design, construction, etc. It plays a key role in responding to disasters - dealing with collapsed and damaged buildings and infrastructure and providing temporary shelter and services to affected communities - and also in post-disaster reconstruction efforts". Thus, ensuring sustainable development in construction industry always ensure the disaster resilience and disaster mitigation.

In broad-spectrum, the construction industry has a poor ethical status due to corrupt practices, health and safety catastrophes and being careless towards the environment (Moodely *et al* 2008). Rise of Corporate Social Responsibility (CSR) concept has reflected with the growing societal interest in the ethical conduct of business organizations (Murray and Dainty, 2009). Corporate Social Responsibility (CSR) is the responsibility of organizations for the impacts of

its decisions and activities on society and the environment, through transparent and ethical behaviour (ISO, 2010).

Examining the reason why organizations adopting CSR or socially responsible attitude is important since some organizations have adopted it as a defensive measure; for instance, some businesses have adopted CSR after exposed their supply chain activities for the public like; unfair trading practices or use of child labour (Randles and Price, 2009). Further to that if these CSR principles fully incorporated to the businesses, ultimate effect could be far wider than purely financial returns. Thus, incorporating CSR for the businesses' core activities has identified as the best way of adopting CSR to a particular organization (Kanter, 2003; Randles and Price, 2009).

Hence, this study has focused to determine the prevailing practice of CSR within four contractor organizations in Sri Lankan construction industry. It has come in to light that there is a sound gap between the prevailing practice and required practice.

II LITERATURE REVIEW

WCED (1987), defines Sustainability, as meeting our own needs without compromising the ability of future generations to meet their own needs. It is focusing on the proper balance between the aspirations of mankind and limitations imposed by nature. It assure the intergenerational equity (Bansal, 2014). Sustainability implies the protection of the environment and natural resources as well as to impart social and economic welfare to the present and to next generations (WCED, 1987). It depicts the long term ethical relationship of intergeneration of present and future. Sustainable development is also concluded as the development which is socially just and ethically accepted (Laws et al. 2004; Scholz 2011). Sustainability implies the protection of the environment and natural resources as well as to impart social and economic welfare to the present and to next generations (WCED, 1987). It depicts the long term ethical relationship of intergeneration of present and future. Sustainable development is also concluded

as the development which is socially just and ethically accepted (Laws et al. 2004; Scholz 2011).

Solitary economic sustainability is insufficient to achieve the overall sustainability in a corporation (Gladwin et al., 1995a). According to Bansal, 2005; Corporate Sustainable Development is based on three principles namely Economic Integrity, Social Equity, and Environmental Integrity. On the path to achieve corporate sustainability the concept of Corporate Social Responsibility (CSR) was universally identified as an emerging component which encompasses corporate sustainability expression with business operations (Elkington, 1998).

CSR has defined in the ISO26000 as:

“the responsibility of an organization for the impacts of its decisions and activities on society and the environment, through transparent and ethical behaviour” (ISO, 2010).

The World Bank (2004) defines CSR as:

“... the commitment of businesses to contribute to sustainable economic development-working with employees, their families, the local community, and society at large to improve the quality of life, in ways that are good for business and good for development.”

Presently several forms of CSR concepts evolved, such as, corporate social performance, corporate social responsiveness, corporate citizenship, corporate governance, corporate accountability, sustainability, and corporate social entrepreneurship. In common, all these concepts focus in social obligation beyond the economic considerations.

CSR express the corporate sustainability in terms of business case. Hence it has universally recognized as an essential component to achieve corporate sustainability from business perspective. CSR initiatives of businesses are mostly balancing the competing needs of shareholders and stakeholders. Through that businesses are “Sustaining” over the short run. Thus, short term success should never risk the long term survival (Bansal and DesJardine, 2014).

Corporate Responsibility involves the ‘fit’ businesses develop with the societies in which they operate. The function of business in society is to yield adequate returns to owners of capital by

identifying and developing promising investment opportunities and, in the process, to provide jobs and to produce goods and services that consumers want to buy. However, corporate responsibility goes beyond this core function. Businesses are expected to obey the various laws, which are applicable to them and often have to respond to societal expectations that are not written down as formal law (OECD, 2003 cited Kakabadse et al 2005). Further to that, CSR Europe (2003) cited Kakabadse et al 2005; stated that Corporate Social Responsibility is the way in which a company manages and improves its social and environmental impact to generate value for both its shareholders and its stakeholders by innovating its strategy, organization and operations.

According to Balabanis *et al* (1998); economic performance connected to CSR performance and disclose it, offer some weight to the business case to adopt CSR policies in an organization. CSR policies has provided an emergent proof that it could help to reduce staff turnover, increase loyalty and raise brand awareness through minimising the exposure to risks, legal and otherwise. But, this could achieve only if CSR exemplified entirely within the business and not merely employed as a risk minimisation technique (Randles and Price, 2009). Thus, ethics correspond to real life complexities in Construction Industry, but having just a code of ethics document is not a panacea to develop an ethically bounded organization. The code must be a living document which has subjected to regular updates creating ethical sensitivity and consensus. In order to address complex issues in a complex site environment, having a codes of practice, policy document or value statement would be a good starting point (Randles and Price, 2009).

Varney, (2003) stated the government's contribution towards developing CSR in the industry should be a "*Motivate, do not legislate*" approach, since compulsory corporate responsibility direct organizations to enforce their least contribution not the best possible practice. For example UK government published a draft regulation on Operating and Financial review (Ernst and Young, 2005). According to that publicly quoted companies in UK needs to provide a narrative report on company's business objectives, its strategy for achieving them and risks and uncertainties that involve with that

achievement. Thus, through that it requires companies to understand and report on the employee, environmental, social and community issues that could arise due to the business activities.

Looking at the core business activities in an organization and determining on the way of doing it in an ethical manner would be the best method to perform the business in with an ethical background. Thereby, ethical decision making is a must. It is obvious that, for long term survival in the competitive market being profitable is a requisite. Thus, if ethical trading costing money, then the organization should determine that value and market that added value to customers as better quality or feel-good factor of ethical purchasing. Many opportunities are there to inclement profit while engaging in social responsibility. This could be done to the best weight by aligning a business's core values with its brand (Randles and Price, 2009). Thus, CSR should not be an 'add-on' to the core business, but it should be a part of the business.

Skill shortage in the construction industry is becoming a more serious concern at present (Randles and Price, 2009). Remuneration is important but it is not the only factor that which motivates employees (Randles et al, 2005). Further there are many factors that an employee looking at to take the decision of stay with the organization including flexible hours and degree to which his or her opinions were listened or not. Human capital of an organisation could be improve by providing education, training and medical provisions but to improve the social capital organization needs to maintain the human capital. Thus, in order to be sharing and caring for an organization; they needs to invest on business's core strengths.

Moreover, summing up the strategies of the organization and strategic management to pursuit sustainable competition would be an evident for CSR implementation (Brooks and Thomas, 2005). Thereby, organizations could consider on their health and safety strategy, purchasing strategy, recruitment strategy etc. as an evident to maintain the CSR within the organization.

III METHODOLOGY

A qualitative study was used to perform this research study. Comprehensive literature review was carried out for the purpose of having an overall understanding about the concepts of CSR and sustainable development and to identify their relationship. An in-depth interview survey was carried out to investigate the current CSR practices in Sri Lanka in order to identify the gaps in CSR practices to focus their responsibility towards sustainable development. The qualitative study was based on a judgmental sample with interviews selecting four construction companies from each category of CS-2, C1, C4 and C7 contact list of Construction Industry Development Authority (CIDA). Transcribing, coding and categorizing the qualitative data were done to build and finalize the conclusions of the study, the gap between prevailing practices and necessary CSR practices for sustainable development.

IV DISCUSSION

During the qualitative data analysis carried out; based on transcribing, coding and categorisation the CSR activities in the contractor organizations could be categorised under: CSR through philanthropic activities, CSR related to business environment and CSR related to business process. It was found that there is a significant gap in CSR related to CSR related to business environment and CSR related to business process.

Almost all the contractor organizations that has interviewed were operating their business under construction based diversified nature. Their business activities included constructing roads, bridges, flyovers, airports, harbours, buildings (low rise to high rise), telecommunication (cabling), refurbishments, plants (asphalt, concrete, crusher, and queries), dam rehabilitation, real estate etc.

This chapter presents information on the general awareness of the concept of CSR in the construction companies of Sri Lanka, their budgetary allocations and the general nature of conduct of CSR. Thereafter, the categories of CSR revealed through the study is discussed with their gaps related to expected level of performance.

A. Industry awareness on CSR

When assessing the general understanding on CSR of the respondents, it has revealed that around 60% of respondents' idea on CSR was that it is totally based on charitable donations. Thus, it has revealed that there is a very limited awareness among Contractor organizations on the implications and obligations of CSR on business. According to the respondent RI_CON_01:

.....well, we are doing so many things under CSR. Now last year we have constructed a (wewa) tank. Also we need to plant minimum two times of cut trees. That's a policy in our organization.say for example if we had to cut 100 trees we plant 200 trees... Other than that there are requirements in the project areas know... like prepare a playground in the school, construct shrine rooms, construct toilets, carpet byroads, carpet basketball courts in schools, dig agricultural wells...

B. General nature of conduct of CSR

It has come into light that, disclosing CSR information adequately and reasonably (Hou and Reber 2011) to maintain a transparent relationship has not taken place. In CS-2 category organization, there were project wise contribution and organization wise contribution for CSR. Most of locally funded projects had not any allocation for CSR by the funding organization or the client. In those kind of projects, contractor allocate some portion from the internally prepared BOQ but this will not revealed to the funding body or to the client. As stated by RI_CON_01 ".....local funded bodies like Road Development Authority, Water board or local clients... they do not have an allocation for CSR. In such instances we allocate a component call CSR from the internally prepared BOQ..... No. Usually internally prepared BOQ will not reveal to the client..." Thus, disclosure of allocation for CSR activities in locally funded projects to the client has not practiced.

However in foreign funded projects this CSR allocation will be done by the client or the funding body like World Bank, JAICA etc. Further, RI_CON_01 stated ".....specially foreign funded projects like JAICA, world bank; they have an allocation for CSR since their concern on environmental related things is high..."

C. Budgetary allocation for CSR

Further to that there were no any clearly stated allocation or percentage from the annual budget in any of the organizations in the sample. Thus, the organizational allocation has always depend on the amount of profitability of that organization. According to RI_CON_01 "...There is no any hard and fast rule in the company regarding budgetary allocation, according to the requirements raised, we are concerning on that..." Meantime, RI_CON_02 stated that "...actually frankly telling you, we don't have this specific budget on that...normally we are not initially allocating ok 5% or 10% or like that. But they have given every project pre hand opportunity for them to decide".

D. CSR through philanthropic activities

Moving towards to the activities currently performing under CSR, it has noted that most of CSR activities performing in Contractor organizations are directed towards philanthropic activities. Thus, their engagement in such philanthropic activities like; fulfilling requirements in the project area; prepare the playgrounds in schools, construct shrine rooms, toilets, carpet basketball courts in schools, carpet/concrete the byroads, dig farming wells, refurbish common places like "praja shala", refurbish tanks, built water tanks for rural areas, donate books and stationeries for schools, blood donation campaigns, donating money to complete the halfway completed houses of the under privileged employees, donating money for surgeries of the employees, construct houses for disable army officers took place. All the organizations in the sample had involved in charitable donations. These charitable donations are aimed for under privileged employees, neighbours of the project, citizens who met with disasters like tsunami, flooding, land sliding and drought conditions, infrastructure development of the project area and donations to the public entities like schools and religious places were mainly took place. According to Carroll (1991); "Philanthropy" (or charity) does not necessarily mean that a firm develop a broader plan of actions to effectively monitor and measure its impacts on society, design policies, procedures and tools to improve the firms' performance towards society.

Moreover, he described that CSR includes philanthropic contribution but not limited to them.

E. CSR related to business environment

Concerning on CSR related to business environment, directed to develop human capital of the organization, every unit in the sample has focused on at least basic requirements. Direct employee retention rate has laid in a high rate in all the organizations within the sample due to benefits gain like bonus, medical facilities, insurance and training. However, it has noted that most of all direct employees are in above supervisory grades. Thus, mostly the direct employee category consist with white collar job roles. None of the other organizations of the sample had direct labour opportunities. They had hired labours through labour sub-contractors and labour suppliers as stated RI_CON_02 "... normally what we do is we subcontract labours...so then lesser trouble..". Presently there is a new trend to get foreign labours from countries like China and India. RI_CON_03 further stated;

...nowadays most of multi-national investors prefer to hire Indian and China labours.. They are very much productive and since they come for two years contract, there is no hassel in leave requesting and things like that.. Because here some labours will not return after they went on leave.. Their attitude on working is very poor. Always trying to be idle and so achieving productivity is an issue...

Their main concern was to improve the productivity but there were no any evaluation done on the social impact of such decisions.

Moreover organizations in the sample, above C1 grade were provided training opportunities for employees as stated RI_CON_01;

... many many training opportunities we offer like CIDA, IESL, NAITA training opportunities, CPD sessions organized by the organization with industry experts, direct labours will be sent for Health Safety and Welfare, First aid training, Traffic Management, and Lab training. Engineer level and above has sent for "Corporate Etiquettes" programs and many more.. Also

design unit of the company has allocated for engineers to complete their chartership....

Further to that they had provided on the job training for the employees, training sessions conducted by hiring a training officer from NAITA.

Moreover, they have involved in addressing the burning issue of labour shortage in the industry. According to RI_CON_04;

...other than that there is a scarcity in industry for skilled labour. So we have formed a separate subsidiary called skill training and management. There we provide training. We have short courses like three months, six months. Through that we train carpenters, masons, bar benders..

Some organizations provided their equipment and skilled operators for the demonstrations and training sessions conducted by the government. Also almost all organizations has provided opportunities for internship programs of university students.

F. CSR related to business process

When contemplate on CSR related to business process, it has noted that, every entity has taken at least some efforts to improve the environmental management system, energy management system, and health and safety management system in every organization, use of advancements in technology for to improve the productivity and minimise the material consumption. However, very poor and socially irresponsible behaviour has noted regarding material purchasing process.

Evaluating environmental performance of the sample, it has noted that CS-2 category organization had a sound top management commitment for environmental concerns. As detailed by RI_CON_02;

...very concern.. which means from vision and mission concern for environment has given. Importantly we allocate budget for these environmental activities. The problem in most companies are vision and mission is there..but no budget at all.. (laughing).. even beyond the budget we are allocating.. say for example that you are taking an environmental project.. if you can justify well you can get

approval for that...we are very flexible in that...

During the interview the respondent revealed that from the vision and mission through every activity, environmental concern is there in the organization. Environmental Management System, ISO 14001:2004 certification was there for the organization. Awards like 'Best corporate citizen sustainability award' were won from this organization. Environmental Management Action Plan was there for every project RI_CON_02 stated "...it is a must to develop an environmental management action plan.. specially it should be there for foreign funded projects.. but now it is required for the RDA and water board projects as well..".

As stated RI_CON_04 "...anyway we have to minimise the environmental impact know.. so to minimise the environmental impact we have EMS. There we have a certificate for our company plus all our subsidiaries..."

In addition to that; in project sites of Colombo urban area, disposing food waste has become a heavy issue with the Meethotamulla disaster. Some organizations has taken very much innovative solutions as stated RI_CON_02;

....then.... we implemented kind of new technology for our food waste. We used.. you know.. pigs.. actually I implemented that. Because that matter.. Meethotamulla case you can't dispose any kind of food items.. so there was a huge problem.. so I used those pigs and they eat anything (laughing)...

Thus, this organization has utilized an innovative solution to manage food waste collecting in site during the construction period. They had reared four pigs on site and through that they have get rid of the food waste burden. Further to that, segregating waste has taken place and through selling cardboard packages and paper items they have earned a considerable amount. Solid waste particles like cement, bricks, blocks and timber; they have used for backfilling and also they sent for road construction sites for filling purposes. Every possible effort has taken to minimise the polythene usage. The other three organizations also utilised environmental management systems like dust monitoring, chemical impacts minimisation, vibration impact monitoring, compensation payment for vibration cracks in neighbouring buildings, using a

sedimentation tank and purify the construction waste water before divert into a public waterway and waste segregation since it is a legal requirement. Nevertheless as stated RI_CON_03 "...we carry out the process according to the general regulation.". Some organizations had not utilised any innovative approaches in their environmental management scope beyond the legal requirement. However, according to Kakabadse *et al* 2005, CSR differ from the obedience to the law instead, it is about the moral obligation.

Concerning on energy management approaches of these organizations; it was totally the consultant's responsibility to design the facility to enhance the energy efficiency. Thus, there is no any involvement from contractors in energy efficient designing. In order to minimise the energy consumption in the project of CS-2 organization as stated RI_CON_02;

....the electricity bill for one month in this site is around one million. So first we categorised from which part of the site having high consumption. We installed sub meters for site offices, accommodation, temporary lighting and equipment. Thereby, we had analysed the electricity consumption of each unit and provided awareness for employees. Rather than using water pumps for accommodations, we used a large overhead tank and placed all the showers next to that tank. Through that, we could use the gravity pressure instead electricity. For lighting we used CFL and LED bulbs only. Through these methods we could save nearly 20% of the monthly electricity consumption...

All the other organizations in the sample also carried out activities like make aware employees through notices and meetings, use of energy efficient lighting, solar power usage for site office lighting system, fuel consumption controlled through optimum vehicle usage, selection of energy efficient equipment and plants.

Every organization has taken arrangements in providing healthy and safe work place for employees. RI_CON_01 revealed "... Of course we have a very high concern on health and safety. We have many certifications like and awards like OSHAS and NIOSH. Organizational level there is a H&S policy, procedure and manual...". Further to that they had safety officers for their projects.

Awareness has done through safety meetings, toolbox meetings, weekly meetings, notices and posters. Personal Protective Equipment has been provided and fine system has implemented to make sure the safe environment within the site.

Further to that, some organizations practised lean construction methodologies to improve the productivity while minimising the material usage; according to RI_CON_02 "...we use some new technologies like post tensioning to minimise the concrete usage for beams and we use mywan formwork to reuse the same set of formwork for all the floors..." As stated by RI_CON_03 "... We use of low weight modular panels instead of using blocks for internal partition walls. Through that we could enhance the construction speed ...".

Moving towards the material purchasing and usage; choice of materials always depends on the site requirements and architect's requirement. Thus, material related decisions always need to on par with the given specification. When purchasing materials; the contractor organization has to provide minimum three samples with related testing reports and quality parameters along with quotations. However, it has revealed during the interview of RI_CON_02 "...the total project cost is 5.8 billion and out of that, imported materials cost is 2.3 billion...". Thus, around 39.6% from the project budget has spent for the imported materials. Local material usage was around 17.24% from the total project cost. Due to the duty free benefits they got for the projects, it is pretty profitable to go for imports. On the other hand some varieties of materials are not available in the local market for example laminated glass etc. Sometimes, even though they have alternative material in local market they preferred to go for imported materials due to the vast cost benefit that they could earn. According to RI_CON_02 "...there is a huge benefit in cost wise when purchase tiles from Indonesia, China or Malaysia. This is same for the timber doors from Indonesia or Malaysia. You can't even think of purchasing that quality door for that price..". Also there was no any concentration paid for the health and environmental impacts of those imported materials. RI_CON_02 further stated "...No usually we are not considering health and safety factor of imported materials. What I think is in present market manufacturers do adhere to the environmental and health parameters. If not they

cannot withstand with the competition. Usually we always purchase from leading suppliers in the market...". Behaviour of all the other organizations in the sample related to material purchasing is again laid in the same level. Some organizations involved in road projects used imported synthetic materials like Geo cells, Geo composite and Geo drifts. Their argument was that it is hard to use sustainable materials for road projects. Also according to RI_CON_04 "... if there is no any significance price variation, then only we take the decision to purchase environmental friendly materials...". Thus, all the organizations in sample were conscious on the price regardless the environmental or safety performance when purchasing materials. Therefore, applying green supply chain management system (Jones et al. 2006) has not seen among these contractor organizations.

IV CONCLUSION

The study revealed that, most of the contractor organizations in Sri Lankan construction industry are not having a fixed budgetary allocation for CSR. Even though they are allocating some project wise budget for CSR from the BOQ which they prepare for internal usage, they are not disclosing it to the relevant clients. General awareness is 60% of the contractor organizations use CSR allocation on philanthropic activities. It was observed that they do not have any awareness on business environment and process CSR.

In considering the categories of CSR revealed from the study, CSR related to philanthropic activities was at a high level. Almost all organizations were involved in some particular charitable donations. But, both business environment related and business process related CSR were not well focused in the industry.

In considering business environment CSR practices, recruitment of direct labour from local environment was at a very low level. Instead they preferred to hire most of China and Indian labours for internationally funded projects due to their high productivity and low absenteeism. However, the social impact of these business decisions were not evaluated. Most of the organizations (mostly C4 and below C4 graded) were merely in line with the legal requirements in terms of waste management, health and safety requirements,

welfare of employees, providing training opportunities, and impact assessment of the project. Very few organizations, around 20%, from the sample had taken innovative approaches to maintain health, safety, welfare, and waste management approaches. Some organizations provided internship opportunities. Through these internship programmes they contributed for knowledge and skill on technology transition for the next generation which could be identified under CSR related to business environment.

According to the information gathered, Business process CSR too was at a low level. Organizations' focus on material purchasing was oriented towards cost of the material and there was no evidence to show that they pay attention to environmental performance of materials or any effects on health of occupants. Around 60% from the sample had utilised improved technologies like lean construction techniques to add a value for the organization and the project.

When considering the outcomes from the study it has revealed that there is a considerable gap between the required practice of CSR and the prevailing practice of CSR in contractor organizations of Sri Lanka in CSR related to business environment and business process. Focus towards a morally obliged business process practice was lacking in the industry. Thus, there is an emerging need of a proper framework for CSR in Sri Lankan construction industry for the improvement of a company's social level from "profit only" to a multi criteria aspect involving three Ps: people, planet, profit. A guideline for CSR leading for sustainable development for the construction companies in Sri Lanka will be of vital importance since construction is one of the booming industries in Sri Lanka. Focusing the construction industry towards sustainable development will result in disaster mitigation triggered by manmade built environment.

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