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A Corporate Social Responsibility Indicator System for Construction Enterprises in Vietnam

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A CORPORATE SOCIAL RESPONSIBILITY INDICATOR SYSTEM FOR CONSTRUCTION ENTERPRISES IN VIETNAM

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ABSTRACT

Corporate social responsibility (CSR) is now being valued as a factor that will contribute to the sustainable development of businesses, especially businesses in the construction industry. However, understanding the meaning of CSR in the construction industry and how it is practiced is currently limited. This paper aims to develop a framework for CSR indicators related to construction businesses in Vietnam to further clarify the content and aspect of the CSR conceptual framework. Based on stakeholder theory, CSR issues to stakeholders were developed to address key elements of CSR of construction companies. The indicators are then extracted to reveal the specific content contained in these performance issues. The indicator system provides guidance on the implementation of CSR in the construction industry, allowing construction businesses to evaluate the effectiveness of CSR scientifically, thereby supporting the sustainable development of enterprises.

Keywords: CSR, CSR index, construction industry, CSR in construction, stakeholder theory, Vietnam**.**

I INTRODUCTION

Currently, Vietnam is a developing and integrating country with the world. The increasing demand for infrastructure and facilities has helped Vietnam's construction industry develop. According to the General Statistics Office (GSO), the contribution rate of construction industry ranked third in contributing percentage points to GDP growth. Specifically, in the growth rate of the whole economy in 2018, the agriculture, forestry and fishery increased by 3.76%, contributing 8.7% to the general growth; industry and construction increased by 8.85%, contributed 48.6%; service sector increased by 7.03%, contributing 42.7% (GSO 2018). The growth of the construction industry has brought a lot of contributions to society such as creating jobs for workers, contributing essential products to society to supply the needs of people and organizations, contribute to supporting and improving the spirit of solidarity through many volunteer activities such as building gratitude houses, contributing and sharing to victims of natural disasters, floods ....

It is the reciprocal relationship of the construction industry with other sectors in the economy that has a lot of influence on stakeholders such as employees in the industry, customer partners, the social community where enterprises build their contructions, management agencies, environment. However, apart from the positive contributions, the construction industry is also one of the industries that cause major negative impacts on the environment and society by the carelessness of its activities. According to the statistics of the Labor, Invalids and Social Affairs Inspectorate of Ho Chi Minh City, among the 160 labor accidents in the construction industry in recent years, up to 65-70% of the errors are attributable to employers, that is construction contractors, small and medium enterprises with no legal status. They hire seasonal workers, do not have health insurance, social insurance, contractors are not equipped with knowledge of occupational hygiene and safety, so construction incidents are likely to occur, such as collapse frame-work, partial collapse of a house or structure during construction. The construction has affected the health and life of the people around the site due to the activities: demolition, construction, transportation, and disposal of waste materials causing environmental pollution. .. is the cause of traffic jams.

In the world, the development of construction industry will develop society, according to (construction industry report, 2015), the construction industry will grow about 4.5% per year. China and India are the most developed countries in Asia so they are also attractive targets for construction investors. The trend of sustainable construction is being pursued by countries with construction enterprises focusing on their social responsibility in the process of project implementation, operation and maintenance.

So what is sustainable development? How to develop sustainably in the construction industry is an issue of concern for Vietnamese businesses today. With competition in the construction market becoming increasingly fierce, with increasing levels of competition, construction industry enterprises are targeting CSR as a means to enhance their ranks and gain advantages in competition.

In 2005, 64% of the 250 largest companies published reports related to pollution reduction, waste, carbon emissions and energy use, etc. with dollar donations or voluntary initiatives (PetrovicLazarevic, 2008), with an increasing number of organizations worldwide applying Social Responsibility 8000 (SA8000) to audit real showing their social responsibility (Maxwell et al., 2006). Other similar activities are carried out by organizations with the purpose of identifying challenges and formulating key strategies for the implementation and reporting of social responsibility in the sector (Szekely and Knirsch, 2005; AA1000, 2008; Li , 2009.). So, do Vietnamese construction enterprises have now implemented CSR? Understanding what CSR and Vietnam's legal frameworks are helping businesses understand and implement their CSR?

2 OVERVIEW OF CSR IMPLEMENTATION IN CONSTRUCTION ENTERPRISES

In many countries, the construction industry makes an important contribution to the economy by activities such as manufacturing construction materials, providing construction services and construction processes. Therefore, the

challenges of sustainable development are related to increasing economic, environmental and social issues (Shen et al., 2010).

The concept of social responsibility is considered as an expression of sustainable development in enterprises with the goal of promoting the development of enterprises associated with the interests of stakeholders from the mid-1990s onwards (Lehtonen, 2004; O ' Connor and Spangenberg, 2008). Businesses that implement social responsibility are said to be promoting their image to the outside, creating a good impression on stakeholders in addition to their main business activities. Moneva et al. (2007) stated that enterprises can attract and maintain employees best, increase productivity and avoid law violations when there is a strong combination as well as showing commitment to the moral and social values in report on social responsibility; thereby reducing costs in the short term, and creating better financial results. At the same time, promoting and urging the community to use products from companies that focus on environmental protection is the behavior of a good citizen (Ciliberti et al., 2008a) that have been favored by investors. That is reason investors invest in these types of organizations for similar reasons. Roy and Alam (2007) argue that launching a large market for socialist products and services is considered to be good for the environment and society.

Today, there are many problems related to the construction industry when this industry is often criticized for little attention to the environment and society (Barthorpe, 2010In fact, construction businesses often involve using large amounts of resources and energy. Research from WBCSD (2009) shows that more than 50% of natural raw materials are used to build buildings and the projects themselves consume more than 40% of global energy during construction and operation. In addition, construction activities often have negative impacts on the environment, including dust and gas emissions, noise pollution, waste generation, water abuse, land use and pollution (Tam et al. ., 2002, 2006; Wu, 2008). A number of organizations have implemented ISO 14000 International Environmental Management Standard (EMS) to improve their environmental performance, however, many construction enterprises have not shown their adequate interest in environmental issues (Tam et al., 2006; Turk, 2009). The resource wastage is still quite common in the construction processes and the resource use is relatively low, especially in developing countries. For example, the number of minerals exploited as construction materials in Vietnam is constantly increasing, from 2006 to 2017, the output of exploitation and processing increased nearly 3 times, specifically in 2017, about 530 million tons. The annual amount of industrial waste is about 27 million tons, of which construction waste rate is about 20% (Vietnam Construction Materials Magazine, 2018).

From a social perspective, the construction industry is an important component of the labor market and creates many jobs, although this is a high-risk industry, especially with a low level of labor safety leading to Huge economic losses in construction businesses. Statistics show that fatal accidents for construction workers in construction companies are often much higher than in other industries with the main causes such as falling from above, transport and equipment management (Jones et al., 2006). For example, in the UK, research conducted by the Health and Safety Administration (HSE) has shown that occupational accidents and health damages (delays, insurance and compensation costs) etc… accounts for about 8.5% of the project cost (Qu, 2007). In Australia, the injury rate in construction industry is 50% higher than in all other industries (Petrovic-Lazarevic, 2010). In addition, quality problems in construction projects and lack of awareness of social responsibility also occur in many construction businesses. KPMG (2018) reports that the construction industry is one of the slowest to fulfill its social responsibility obligations compared to other industries.

3. CONCEPT FRAMEWORK AND THEORETICAL BACKGROUND

3.1 The CSR concept

Bowen (1953) first mentioned the social responsibility of business owners in the book "Social responsibilities of the Businessmen" that defines CSR as "the responsibility of business owners does not damage the rights and interests of others. ; business owners must have charitable lines and make up for the damages their businesses cause when harming society ... ".

Carroll (1979, 1991) argues that CSR includes economic, legal, ethical and charitable expectations that society wants organizations to do to at a given time. Carroll (1991)) presenting the pyramid of corporate social responsibility, which emphasizes the combination of entrepreneurial ethical views on the four key aspects of social responsibility in relation to stakeholders in the pyramid top-down Below, include: charity responsibilities, ethical responsibilities, legal responsibilities and economic responsibilities.

Figure 1 Carroll's Pyramid of Social Responsibility (1991)

Currently, in the world, a number of organizations have introduced CSR conceptual frameworks to provide ways to evaluate and implement CSR as one of the basis for guiding measurement information about CSR, such as: The European Commission provides valuable measures such as managing human resources, health and safety at work, adapting

to changes and managing natural and environmental impacts; The company's external metrics include: local community, partners, suppliers and customers, human rights, global environmental framework.

Meanwhile, the Global Reporting Initiative (GRI) has developed the most popular global sustainability reporting framework, which provides a set of operational principles and indicators for the implementation of social responsibility. The AA1000 Standard of Accountability Principles is based on the principle of increasing accountability for multinational organizations towards responsible business as well as more sustainable development. The Organization for Economic Co-operation and Development has guided responsible business practices for multinational enterprises regarding contents: human rights, employment and labor, environment, exchange, and labor relations, benefits of consumers, science and technology, competition and tax calculation (BIAC 2012). ISO international standard organization for management system related to social responsibility is included in the ISO 26000 series, for ISO organization issued in 2010 mainly providing guidance on how enterprises can operate, how to have social responsibility. The main contents of the concept of social responsibility concept of organizations in the world are shown in the Table 1 below.

Table 1 *Framework for CSR concept of organizations in the world*

Content	EU	GRI	OECD	AA10000	IIRC	IFC	CDP	ISO	GIIRS
Employees	✓	✓	✓	✓	✓	✓			✓
Customer	✓	✓		✓		✓			✓
Product		✓	✓	✓	✓		✓	✓	✓
Environment	✓	✓	✓		✓	✓	✓	✓	✓
Energy	✓	✓		✓	✓		✓		
Community	✓	✓			✓	✓		✓	✓
Goverment		✓							
Compete	✓	✓	✓				✓		✓

Because the concept of CSR is so diverse and inconsistent, there is little uniformity in the CSR frameworks, so the implementation and reporting of CSR have developed in a manner specific to needs. Therefore, the main objective of this study is to develop a CSR indicator system that can be used to evaluate the performance of CSRs of construction companies and to guide scientific considerations of social responsibility. The theory of stakeholders is applied as a conceptual basis for the development of the CSR framework. The application of this theory provides a link between the concept and the selection of indicators, providing a definition of measurement and the concept of social responsibility. In order to develop an appropriate and meaningful CSR indicator, the first phase of this study is to identify stakeholders in the implementation of social responsibility of construction enterprises.

3.2 Theory background

Stakeholder theory reflects the concept of governance and ethics, first introduced by Freeman (1984). The theory is that for businesses to survive, they must get the approval and continued support of their stakeholders, and as a result businesses will tailor activities to maintain support (Clarkson, 1995; de Villiers and van Staden, 2006; Mitchell et al., 1997; O'donovan, 2002). The main content of this theory is that the success of an organization depends on the relationship between the manager and the stakeholders such as investors, employees, creditors, customers, contractor /suppliers, the state and the social community that are concerned with achieving the goals of the business. In which the level of contribution of each related party will have different moves to care about the business results of the enterprise such as: investors want to get the maximum profit for the money they invest in the enterprise; employees want businesses to compensate in a way that is worth their efforts through compensation, reward, assessment of skills, position, working environment ...; customers are interested in product quality and price of goods supplied by enterprises; suppliers pay attention to solvency, ability to consume goods, and services they provide; State management agencies are interested in whether enterprises carry out legal responsibilities on people, products, taxes ..., the social community is interested in how businesses' business activities have an impact on the environment..... It is because the interest of the stakeholders involved in the business at different angles and levels makes managers to consider the interests of all groups and to balance their interests in the decision making process.

The identification of relevant stakeholders is closely related to the conceptual framework, which is a conceptual framework for building CSR efficiency issues. This study is a global approach to identify stakeholders affecting CSR in construction activities. Due to the nature of the industry, construction companies operate at two different levels: the corporate and project level. Corporate level is often related to enterprise interactions in the broader political, economic, social, technological, environmental and legal context (Moodley et al., 2008). Project level involves interactions that arise from the implementation of a particular project. Previous studies have mainly focused on social responsibility issues at the corporate level. However, the construction industry is a project-based industry, in which projects are often long-term, geographically dispersed and fixed in terms of completion time and results (Liu, 2002). Therefore, the stakeholders involved in each construction project differ significantly from the parties involved in each construction corporate.

Stakeholders in the project level according to the conceptual framework and project framework can be divided into two levels: stakeholders at the corporate level and stakeholders at the project level.

Stakeholders at the corporate level are meant to meet the requirements of employees and customers, shareholders and governments related to the entire enterprise. Thus the social responsibilities that enterprises must fulfill include legal, economic and ethical responsibilities (Carrol, 1991). For example, economic responsibility means that the business has a responsibility to ensure its continued operations on a profit-generating basis, to continually provide shareholders with

dividends, repayment to creditors, and pay workers salaries and other allowances. Ethical responsibility means public welfare, such as participating in charitable activities to support the community, financing social and development activities to support disadvantaged groups (Wang and You, 2008). Legal responsibilities related to enterprises must comply with laws and regulations promulgated by the State such as the Construction Law and the Construction Code….

Stakeholders of the corporate are not only involved in the entire organization such as shareholders, employees, creditors, etc. who have direct economic interests or commercial interests in the company, but also include people who are concerned about or complain about the company's operations, such as local communities, state management agencies and local governments.

It is possible to generalize stakeholders at the corporate level as shown in Fig. 2.

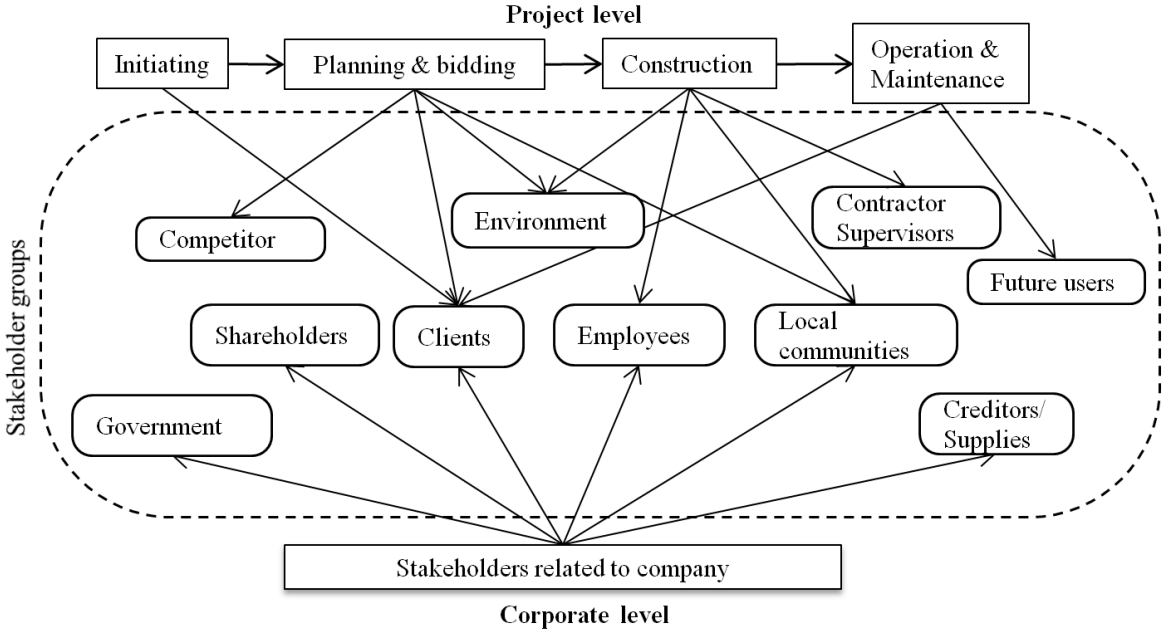


Figure 2 *Stakeholder groups mapped into contruction enterprise*

4 METHOD OF MEASUREING CSR INDICATORS IN CONSTRUCTION ENTERPRISES

Based on the conceptual framework and background theory of stakeholders, in this study, the author determines social measurement indicators based on the following steps (Fig. 3).

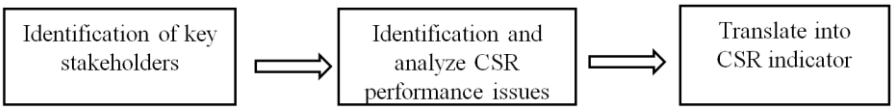


Figure 3 *Research process*

In general, construction projects progress through the following stages: Project intiation, Project planning, Project execution, and finally acceptance and maintenance (Fig.4 Project life cycle).

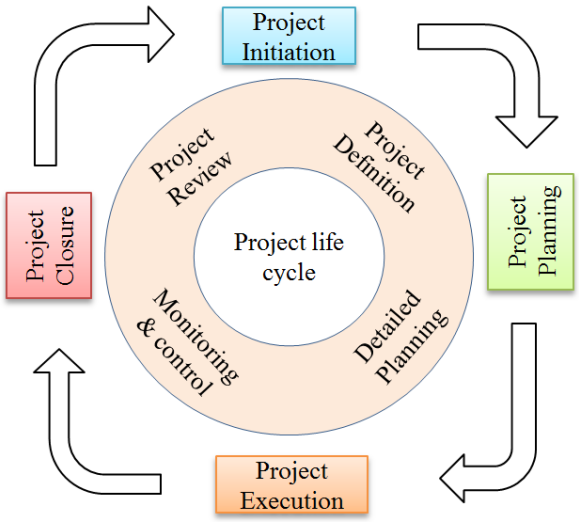


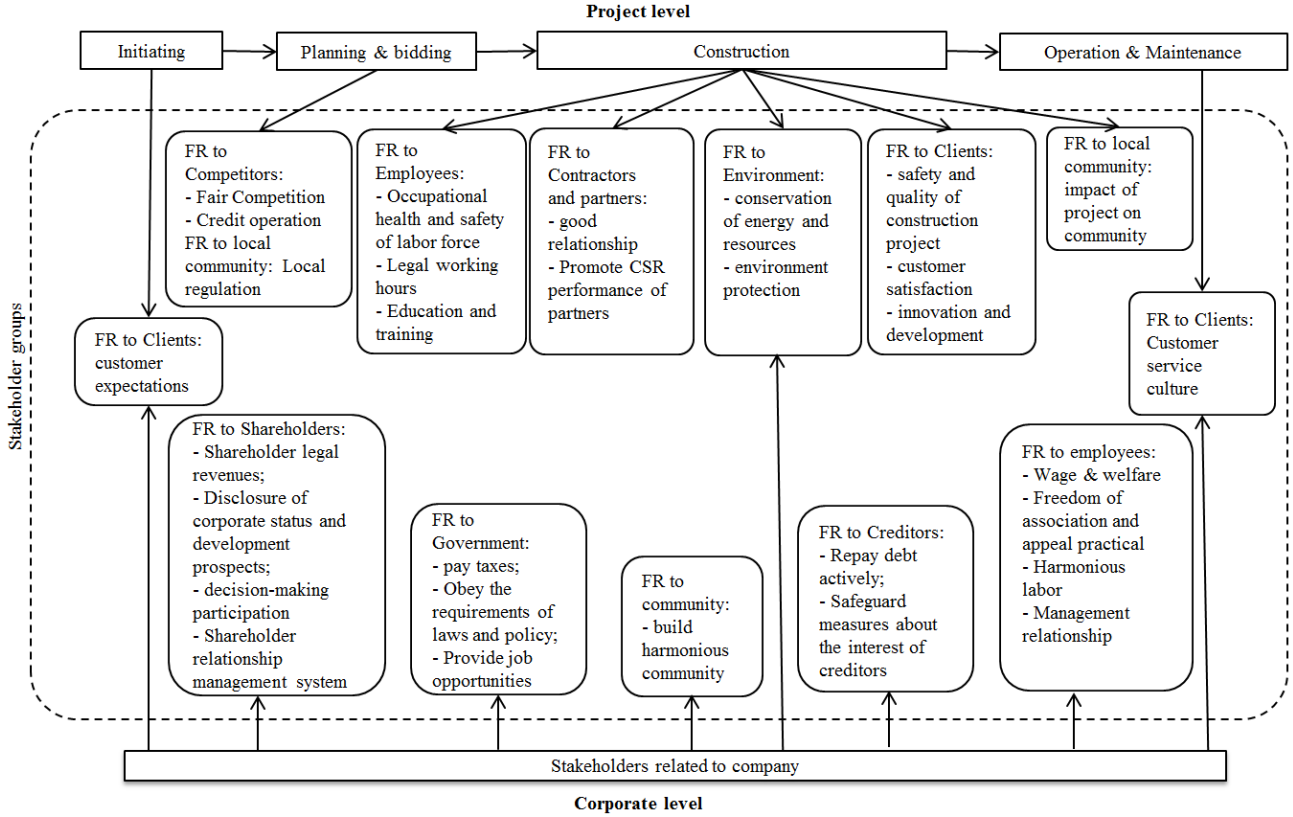
Figure 4 *Project life cycle*

The initiation stage was carried out from activities such as investment intent research, opportunity research and project approval. During this period, customers need to discuss the necessity of the project, the feasibility of construction conditions, profitability and the impact of the project on the surrounding environment.

The technical design stage is greatly influenced by customers' wishes and aspirations, total investment, project progress, construction stability, security issues, energy saving and environmental protection.

At the construction preparation stage (including land acquisition, demolition, bidding, selection of supervising contractor), the impact of the project on the surrounding environment and fair competition during the process should be considered. Therefore, at the planning and bidding stage, stakeholders are customers, local communities and competitors.

After winning the bid, the construction stage must ensure the project quality, period, cost and safety, and environmental protection objectives. During this period, the enterprise's social responsibility will be influenced by stakeholders such as: officers and employees directly and indirectly participating in the project, suppliers/contractors, partners, customers, related issues. Environmental concerns and local communities are involved in this process. Finally, the time to complete the handover of the project and the warranty is primarily the responsibility of the customer. Fig. 5 shows the interaction of stakeholders in the life cycle of construction projects at each stage of the project process.



Firgure 5 *CSR performance factors relevant for construction companies*

Based on the reviews of the conceptual framework of social responsibility of organizations in the world (Table 1), combined with the background theory of stakeholders analyzed and integrated with the characteristics of enterprises in the construction industry. In Fig. 2 the author conducted the identification of social responsibility indicators frameworks to capture the interests and concerns of stakeholders, thereby identifying the issues related to the performance of social responsibility of these enterprises.

These social responsibility indicators will be the basis for identifying the issues of social responsibility of enterprises in the construction industry from which to use quantitative and qualitative methods to supplement the solutions for determining operational efficiency of businesses in economic, environmental and social aspects. The development of these indicators is also intended to help address the main concerns of each stakeholder and guide businesses to more effectively manage. Therefore, in order to develop the index framework, it is imperative to identify issues of social responsibility effectiveness related to stakeholders in construction companies.

In fact, Vietnamese construction enterprises when implementing projects will have to comply with the standards to ensure the quality of works as well as safety for the community, these are also the main evaluation systems related to social responsibility of businesses. In Table 2, the evaluation systems related to the performance of enterprises are summarized as follows:

Table 2 *Documentation system of social responsibility assessment*

Treaties and standards	Evaluation indexes	Content index	Related research
GRI	- DJSI - FTSE- All index - Domini Index - KLD - Content analysis method	Energy; Product Environment; Employees; Social community	
FTSE4good		Environment; Stakeholders ; Community; Human rights	
Business Ethics 100		Environment; Employees; Social community; Diversity; Customer	

WBCSD	Energy; Environment Employees; Social community; Anti-corruption
UNGlobal Compact	Environment; Employees; Human rights; Anti-corruption
GIIRS	Environment; Employees; Social community; Governance structure
ISO 26000:2010	Human right; Human; Environment; Product; community; Fair
AA10000 series of standards	Quality of published information about CSR
Viet Nam Building codes	
- QCVN 02:2009/BXD	Natural Physical & Climatic Data for Construction.
- QCVN 05:2014/BXD	Dwellings and Public Buildings - Occupational Health and Safety.
- QCVN 06:2010/BXD	Fire Safety of Buildings.
- QCVN 09:2013/BXD	National technical regulartion on energy efficiency buildings
- QCVN 10:2014/BXD	National Technical Regulation on Construction for Disabled Access to Buildings and Facilities.
- QCVN 16:2011/BXD	Products, Goods of Building Material.
- QCVN 18:2014/BXD	National technical regulation on Safety in Construction

From Fig. 5 (a system of relevant assessment standards), the characteristics of construction enterprises have been described in the operation process to reflect the requirements of stakeholders that enterprises must implement social responsibility, from That will determine the effectiveness of social responsibility of construction enterprises can implement. In addition to general standards, a number of specific regulations that construction industry enterprises must meet to ensure the reflection of the effectiveness of production activities as well as the effectiveness of social responsibility in the operation process of enterprises.

Combining Table 2 and Fig. 5, the author aims to identify key factors affecting social responsibility of construction corporates as follows:

- Factors related to Shareholders;
- Factors related to Employees;
- Factors related to Products;
- Factors related to Environment and resources that businesses use;
- Factors related to Community;
- Factors related to suppliers and contractors.

From the main factors affecting the social responsibility of construction corporates, the author will conduct statistics and build indicators for each factor based on an overview of previous studies and background theory of stakeholders.

4.1 Indicators for shareholders

All CSR indicators related to shareholders are determined in all enterprises (Table 2). Construction corporates are also enterprises, so they are responsible for creating profits to provide shareholders with the most effective way. Therefore, companies are recommended to develop strategies to maintain financial efficiency, expand markets and develop sustainable construction (Presley and Meade, 2010). Meanwhile, Mitchell et al (1997), Agle and Mitchell (1999), Rowley (1997) said that the implementation of social responsibility of enterprises is focused on integrating social needs to balance the interests of Stakeholders of the enterprise. CASS-CSR 1.0 (2008) recommended that construction enterprises focus on shareholders in rights such as maintaining relationship management system, encouraging shareholders to participate in business decision making important. Currently, according to the evaluation of the Sustainable Development Organization, WBCSD has based on the reporting principle of GRI 4.0 to build the information disclosure index on social responsibility of enterprises to provide stakeholders with information on business financial situation and prospects for enterprise development in addition to social information to reflect the business performance achieved by enterprises in the period (Jenkins and Yakovleva, 2006).

Therefore, based on the interests of shareholders, the CSR indicators that construction corporate need to reflect to measure the effectiveness of CSR, which is the company's performance through the following aspects:

- Financial efficiency: the value of financial results such as maintaining and improving the indicators of Revenue, Profit, stock value, company reputation, market share of construction.

- Governance effectiveness: it is assessed on indicators related to the organization and decentralization in construction enterprises, organization and coordination between departments, corporate culture, building relationships and brand of business to customers.

4.2 Indicators for employees

With specific characteristics of the construction industry, the number of people directly involved in the production and construction is relatively large, so this is one of the key factors that constitute the value of construction products, consider to evaluate the effectiveness of cost - benefits in businesses.

In Fig. 5, factors that affect employees include wages, bonuses, safety and health, training issues, and promotions. These issues are also included in Table 3, where national organizations and norms all mention wages and benefits (GRI, Business Ethics 100, WBCSD, GIIRS, UN Global Compact, SA8000, OHSAS18001, OHSAS18002). Matten and Moon

(2004), Godfrey and Hatch (2007) argue that social justice is upheld with self-respect, equality and fairness as one of the main components of enterprise social responsibility. Ciliberti et al. (2008b); Van der Heijden et al. (2010) commented that enterprises should consider and allocate appropriate working time and rest time for employees according to different types of jobs and workplace situation on construction sites. In addition, the regulations related to employees in Vietnam for construction industry enterprises must comply with QCVN 05: 2014 / BXD, QCVN 18: 2014 / BXD.

Thus employee indicators can be reflected based on the following efficiency aspects:

- Occupational health and safety: Providing a safe and healthy working environment (for example, construction machinery and equipment, labor protection equipment and technical measures); Organizing medical examination and treatment for officials and employees; Raise awareness and responsibility for construction safety; Maintenance and regular maintenance of construction machinery and equipment; Management process of occupational safety supervision (injury, accident and occupational disease)

- Wages and benefits: Ensuring the minimum wage as prescribed; clear salary, bonus, benefit and social security policies and concessions according to regulations.

- Training and advancement: Training suitable for the job, as well as specific OHS & W training; Employees are aware of the relevant company rules, rules and values; On-site career guidance plan for employees;

- Equity of rights and obligations: Human rights policies and procedures to evaluate and deal with human rights performance; Regulations on corporate culture environment, Share purchase policy for employees.

4.3. Indicators for the product

Due to the specific characteristics of the construction industry, which are often prolonged and divided into several stages in the process of construction and completion, customers of the construction company always include current and future customers. This is also one of the factors contributing to the efficiency of governance and finance as determined in the indicators for shareholders. Product-related indicators often include product safety and quality indicators (Egemen and Mohamed, 2006). Because of the great influence in the project implementation process, these indicators not only relate to customers but also greatly affect the local community where the project is implemented. The index of products to be built will be based on the quality standards of ISO 9001 as well as the standards required to meet for a construction issued by MOC, including: QCVN 1: 2008/BXD, QCVN 05: 2014/BXD, QCVN 10: 2014/BXD, QCVN 16: 2011/BXD.

Thus, product indicators can be reflected based on the following efficiency aspects:

- Quality and safety of construction products: The quality and durability of buildings and their components; meet legal requirements and security; Eliminate potential safety threats for customers and the community; Establish a project quality management system.

- Customer satisfaction: Complete the project within the budget; project complete on time;

- Customer service culture: The process of resolving customer complaints; Maintenance process; The after sales service.

- Innovation and development: Investment in developing innovative construction materials; Construction methods and new technologies.

4.4. Indicators of natural resources and environment

Environmental issues are an important issue in the implementation of corporate social responsibility. CSR indicators are considered at the enterprise level because construction activities have a significant impact on both the natural and construction environments by the use and exploitation of energy and resources, affecting the landscape. It is important to understand that infrastructure and new facilities are built (Shen et al., 2007). ISO has provided the ISO 14000 Environmental Management System on a voluntary basis, giving organizations a useful tool to manage the impact of each project on the environment. At the same time, each country also has its own regulations to require construction enterprises to fully evaluate the regulations on natural resources and environment when implementing and implementing projects. In Vietnam, the construction standards that enterprises are required to implement for issues related to natural resources and environment include: QCVN 02: 2009/BXD, QCVN 06: 2010/BXD, QCVN 09: 2013/BXD, QCVN 18: 2014/BXD.

Thus, product indicators can be reflected based on the following efficiency aspects:

- Preserve energy and resources: Save water in the process of building and operating the building; Land use efficiency; Minimize construction waste and demolition for landfill and energy consumption; Developing renewable energy and alternative energy initiatives, Saving resources and awareness of environmental protection.

- Environmental protection: Appropriate disposal of waste and development of recycling and reduction of pollutant emissions (e.g. gas, dust, wastewater, solid waste and other hazardous substances); development of environmentally friendly products (for example, green building design, green materials, new construction methods ...);

4.5. Social community index

Project developers often have to pay attention to economic factors such as the landscape and utilities where the project is implemented such as electricity, roads, schools, railway stations and social factors such as job creation. Indigenous people and project impacts on the environment such as environmental and safety impacts (Moodley et al., 2008; Shen et al., 2007; Petrovic-Lazarevic, 2008), impacts on wastewater, sanitation , environmental pollution, noise ... the impact of construction activities on people living nearby (Jones et al., 2006). This is the social responsibility of businesses that contribute to creating valuable benefits for the local economy through job creation and use of local businesses, conveying business values and creating long-term partnership with the community (Jones et al., 2006).

From a community development perspective, community building support activities (Jones et al., 2006), active participation in community activities and financial support (Cramer, 2005), Ministry of Welfare Communities (Shen et al., 2007) contribute to increasing the effectiveness of the use and connection of project utilities with the community such as the development of electrical systems, roads, schools and surrounding areas of the project. In order to implement and solve

local labor issues, these activities increase the brand and product value of the business, effectively bringing stakeholders together.

In Vietnam, the construction codes that businesses are required to implement for social community issues include: QCVN 01: 2008 / BXD, QCVN 03: 2012 / BXD, QCVN 07: 2013 / BXD, QCVN 08: 2009 / BXD, QCVN 14: 2009 / BXD, QCVN 17: 2013 / BXD.

Thus, indicators of social community can be reflected based on the following effective aspects:

- The impact of the project on the community: providing job opportunities for the local community, commitment to protect the local environment; minimize hazards to the community;
- Participate in community activities: participate in community support activities on security and finance; building community welfare facilities; train human resources for localities.
- Contribution of businesses to the community: Tax rates paid to the State, compliance with laws and policies of the State.

4.6 Indicators for suppliers and contractors

Due to the specific characteristics of the construction industry, there are many stages such as compensation, site clearance, construction, finishing, warranty and maintenance so the supply chain is an integral part of the construction industry. At each stage the interest in social responsibility of each stakeholder is different. For example: customers are interested in the progress of completion and handover of the project, the shareholders are interested in the economic benefits after the project is handed over, the business is concerned about financial resources, subcontractors, partners and suppliers; suppliers and partners are mainly concerned with the economic viability of enterprises ... Therefore, the effectiveness of CSR with suppliers and partners is the performance of contracts and timely payments to suppliers / subcontractors (Xin, 2008), maintain contacting and effective cooperation between partners, disclose the supplier supplier's policies (O 'Connor and Spangenberg, 2008).

Thus, indicators of suppliers and partners can be reflected on the following effective aspects:

- Legal records: Accurate information about credit and corporate financial records; Accuracy of credit compliance contract; Accurate information on product credit records; Accurate information on business tax credit records
- Progress of payment of loans and payments: Payment on schedule; Strictly comply with commitments with suppliers (contractors);
- Maintain relationships with partners: The degree of increase in the number or value of contracts, Engagement and association shown by the number of new customers introduced.

5. RESULTS

Based on the methodology of an overview of the concept of CSR and the application of stakeholder background theory, the study proposed a CSR indicator system at different levels of a construction project. The establishment of an indicator framework will guide all stakeholders to contribute to CSR effectiveness at two different key levels: project phase and enterprise management. In essence, the conceptual framework provides a system for selecting indicators. A conceptual framework embedded in the theory will provide a method to convey the selection and arrangement of CSR issues covered in the assessment. A comprehensive approach on both the enterprise and project levels proposed in this study will provide useful inputs for construction companies to incorporate CSR into their business strategies as well as process manage projects. It will enhance the reporting process by having index lists for companies or projects and clarifying the input direction to the CSR index at each level. Table 3

Table 3 *Summary table of CSR indicators of construction enterprises at the corporate and project level*

No	Impact factor	CSR efficiency	CSR indicator	
			Corporate level	Project level
1	Shareholder	Financial performance	- The value of financial results such as maintaining and improving the indicators of Revenue, Profit, - Stock value, - Company reputation, - Construction market share	- The value of financial results such as maintaining and improving the indicators of Revenue, Profit, - Construction market share
		Efficiency on management	- Management effectiveness is assessed on indicators related to the organization and decentralization in construction enterprises, - Organizing and coordinating between departments, corporate culture, building relationships and images of businesses with customers and partners	- Organizing and coordinating between departments, corporate culture, building relationships and images of businesses with customers and partners
2	Employees	Health and labor safety	- Provide a safe and healthy working environment (e.g. construction machinery and equipment, labor protection equipment and technical measures); - Organizing medical examination and treatment for officials and employees. - Raising awareness and responsibility for construction safety.	Provide a safe and healthy working environment (e.g. construction machinery and equipment, labor protection equipment and technical measures); - Organizing medical examination and treatment for officials and employees.

			- Maintenance and regular maintenance of construction machinery and equipment; - Management process of labor safety supervision (injury, accident and occupational disease)	- Raising awareness and responsibility for construction safety. - Maintenance and regular maintenance of construction machinery and equipment; - Management process of labor safety supervision (injury, accident and occupational disease)
		Wages and benefits	- Ensuring the minimum wage as prescribed; - Clear salary, bonus, allowance and social security policies. - Resort according to regulations	- Ensuring the minimum wage as prescribed; - Clear salary, bonus, allowance and social security policies. - Resort according to regulations
		Training and promotion	- Training suitable for the job, as well as OHS & W training; - Employees are aware of the rules, rules, company culture and company values involved; - On-site career guidance plan for employees	- Training suitable for the job, as well as OHS & W training; - Employees are aware of the rules, rules, company culture and company values involved; - On-site career guidance plan for employees
		Fairness of rights and obligations	- Human rights policies and procedures to assess and deal with the exercise of human rights; - Regulations on corporate cultural environment, -Purchase policy for employees.	Human rights policies and procedures to assess and deal with the exercise of human rights; - Regulations on corporate cultural environment, -Purchase policy for employees.
3	Products	Quality and safety of construction products	- The quality and durability of buildings and their components; - Meet legal and safety requirements; - Eliminate potential safety threats for customers and the community; - Establishing a project quality management system.	The quality and durability of buildings and their components; - Meet legal and safety requirements; - Eliminate potential safety threats for customers and the community; - Establishing a project quality management system.
		Customer satisfaction	- Complete the project within the budget; - Complete the project on time;	Complete the project within the budget; - Complete the project on time;
		Customer service culture	- Process of resolving customer complaints; - Maintenance procedure; - The attached after-sales services.	- Process of resolving customer complaints; - Maintenance procedure; - The attached after-sales services.
		Innovation and development	- Investment in developing creative construction materials; - New construction method and technology	
4	Environment and Resources	Conserve energy and resources	- Saving water in the process of building and operating the building; - Land use efficiency; - Minimize construction waste and demolition for landfill and energy consumption; - Development of renewable energy and alternative energy initiatives, - Saving resources and awareness about environmental protection.	Saving water in the process of building and operating the building; - Minimize construction waste and demolition for landfill and energy consumption; - Development of renewable energy and alternative energy initiatives, - Saving resources and awareness about environmental protection.
		Environmental Protection	- Appropriate disposal of waste and development of recycling and reduction of pollutant emissions (for example, gases, dust, wastewater, solid waste and other hazardous substances); - Development of environmentally friendly products (for example, green building design, green materials, new construction methods ...);	- Appropriate disposal of waste and development of recycling and reduction of pollutant emissions (for example, gases, dust, wastewater, solid waste and other hazardous substances);
5	Social	The impact of	Provide employment opportunities for	Provide employment opportunities

	community	the project on the community	local communities, - Commitment to protect the local environment; - Minimize safety hazards to the community;	for local communities, - Commitment to protect the local environment; - Minimize safety hazards to the community;
		Join the community activities	- Participate in community support activities for security and finance. - Construction of community welfare facilities - Training human resources for localities.	Participate in community support activities for security and finance. - Construction of community welfare facilities - Training human resources for localities.
		Contribution of businesses to the community	- Tax rates paid to the State, - Compliance with laws and State policies.	- Tax rates paid to the State, - Compliance with laws and State policies.
6	Suppliers and contractors	Legal records	- Accurate information on credit records, corporate finance, product quality - Accuracy of the credit contract compliance contract;	
		Progress of loan repayments and payment	- Pay on schedule; - Strictly comply with commitments with suppliers (partners);	- Pay on schedule; - Strictly comply with commitments with suppliers (partners);
		Maintain relationships with partners	- Level of increase in the number or value of contracts - Attachment and association shown by the number of new customers introduced	

6 DISCUSSION AND EVALUATION

Previous studies on CSR show that the CSR conceptual framework is multidimensional and complex. Therefore, CSR measures are also developed in specific ways in each country to ensure the harmony between economic development issues but still bring the nuances, customs and practices of each country. Using the review method of previous studies, this study refers to the background theory of stakeholders to evaluate the CSR effectiveness that construction businesses need to perform according to the scope of impact on stakeholders in the role of enterprises and the project. It is this approach that concretizes the factors that affect CSR, thereby detailing the relevant CSR indices based on conceptual frameworks as well as measurement methods and guidelines on national standards and Vietnam that enterprises need to implement.

The approach to developing and evaluating these indicators is based on the principle of selecting the most common elements of CSR conceptual models that are widely and publicly applied throughout the world. ifferent perspectives will be unavoidable because CSR concepts are considered from many angles as well as background theory explaining the effectiveness of construction industry CSR not only the stakeholder theory but also There can be many other theories such as institutional theory, legal theory, representation theory ... Moreover, most of the conceptual framework as well as index measurement methods reflect the benefits of both tangible and intangible benefits of CSR such as community partnerships, investment in local communities, job creation and quality of life ... So the study contributes to clarify the relationship as well as responsibilities of each stakeholder in implementation and control of CSR implementation of construction businesses and at the same time make more clear about CSR awareness and practice through building CSR index framework for construction industry such as: legal issues, CSR efficiency as well as CSR obligations of construction industry with stakeholders. However, the limitation of the research is that due to the general content that the conceptual frameworks mentioned on the perspective of stakeholders, the selection of indicators to meet CSR effectiveness is still limited. This is also the future research direction of other studies when focusing on more relevant subjects such as competitors, non-governmental organizations, and state management agencies.

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