

# The Sustainability Accounting Information System

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## Abstract

Global warming have become a global disaster. Recently, a lot of nations meet in United Nations Conference on Sustainable Development, Rio+20. The conference generates a lot of decisions to develop sustainability of the world. The sustainability emerges as a notion to give a solution on global warming cases. Sustainability accounting gives some solution by accounting perspectives. A few of sustainability accounting researches have given the new perspective about sustainability. We try to propose a integrated information system that how to the companies accountable toward economic, social and environmental cases. The first step, the companies must integrate business strategy with society. They can use the two linkages (looking inside out and looking outside in linkages) to do that. So the companies can do their operation sustainably. In collecting the data, companies can use twinrack approach so that they can prepare their sustainably strategies with very well. The second step, we propose that the government or their body of representation controls sustainability from each companies (go public companies) through disclosure mechanism in annually financial statement. Hopefully, this article can give new contribution to sustainability accounting researches.

**Keywords:** Sustainability, information system, inside out linkage, outside in linkage, and twinrack approach.

## 1. Introduction

Every entities need informations as basic foundation to prepare their goal or target. A lot of companies need informations to compete each others in achieving their profit target. A few of companies which have advantage information is a leader market. The companies must accountable their operation toward investors and creditors as their primary priorities. Yet companies should account their operation too toward their governmental, communities, labor etc. which we generally called as stakeholder. Government, activist, and the media have become adept at holding companies to account for the social consequences of their activities (Porter & Kramer, 2006). The recent matters of environmental destruction change, slowly but sure, to become a global warming.

The global warming tend to become the problem in all of the world. The one of causes from global warming is environmental impact. The most potential of environmental impact were affected by the industrial operation. Hence, the companies become a primary suspect of environmental impacts by the interested parties. So the companies have a liabilities in restoring health of their environment. This paper proposes a blended idea about how to make an integrated information system to account every activities of their operations to public or shareholder. The beginning question in this paper is why must the companies accounts for every activities or operation which relating with environment? The answer that the world especially the biosphere going to agony. This matter was caused by uncontrollable the operation of companies. The rhetorical question emerges that the industrial revolution is going to forward or backward in human civilization? The damage of the earth becomes critical things to all of parties. The environment of companies is natural capital by the operations of companies

According to Gray (1994) in Lamberton (2005) suggests 4 (four) categories of natural capital:

1. Critical, for example, ozone layer, tropical hardwood, biodiversity.
2. Non-renewable/non-substitutable, for example, oil, petroleum, and mineral product.
3. Non-renewable/substitutable, for example, waste disposal, energy usage.
4. Renewable, for example, plantation timber, fisheries.

The four of categories from natural capital shows to us that not to all of natural resources which manages by companies can be renewable. Thus, every companies must aware about this matters and every governments have a responsibility to control the utilization of natural resources in their operation.

Natural capital inventory accounting could be predominantly non-financial, tracking resources flows in quantitative, but non-monetary units (Gray, 1994 in Lamberton, 2005), although Jones (1996) in Lamberton (2005) suggests exploring the valuation of natural assets using financial units. Jones (1996) in Lamberton (2005)

applies the inventory approach to the problem of accounting for biodiversity, adopting a three part process involving the recording, valuing and reporting of natural asset wildlife habitat, flora and fauna, and suggests aggregating records of individual organization to build national record of natural resources. According to Lamberton (2005), accounting for natural inventories is in its exploratory stage. Both the accuracy and potential usefulness of this information needs to be tested with further theoretical and empirical research (Lamberton, 2005).

In this article, we begin with a curiosity questions that how to keep the health of earth, especially our environment sustainably. Those matter becomes a crucial things because we must be responsible to maintain livelihood from our future generation. The companies is a part of society. When companies do their operation, they will involve the life of society which tied up in their business. So the companies have an accountable to restore these environment. In sustainability accounting concept, the companies have an accountable not only to shareholder economically but their worker socially and communities for environmental too. This paper can devide the discussion in two parts. The first part, we study how to integrate business strategy with society. The second part, we study that the body of representation must control accountability of companies sustainably through discoure mechanism. This mechanism can be called as health check up from the government to companies about their sustainability.

## 2. Literature Review

### 2.1 *What happen with the environment (World Commission on Environment and Development, 1987)*

Changing drivers, such as population growth, economic activities and consumption patterns, have placed increasing pressure on the environment. Serious and persistent barriers to sustainable development remain. In the past 20 years, there has been limited integration of environment into development decision making. Environmental degradation is therefore undermining development and threatens future development progress. Development is a process that enables people to better their well-being. Long-term development can only be achieved through sustainable management of various assets: financial, material, human, social and natural. Natural assets, including water, soils, plants and animals, underpin people's livelihoods.

Environmental degradation also threatens all aspects of human well-being. Environmental degradation has been demonstrably linked to human health problems, including some types of cancers, vector-borne diseases, emerging animal to human disease transfer, nutritional deficits and respiratory illnesses. The environment provides essential material assets and an economics base for human endeavour. Almost half the jobs worldwide depend on fisheries, forest or agriculture. Non-sustainable use of natural resources, including land, water, forest and fisheries, can threaten individual livelihood as well as local, national and international economies. The environment can play a significant role in contributing to development and human well-being, but can also increase human vulnerability, causing human migration and insecurity, such as in the case of storms, droughts or environmental mismanagement. Environmental scarcity can faster cooperation, but also contribute to tension or conflicts.

### 2.2 *The emergence of Corporate Social Responsibility (CSR)*

The tension of activist, communities and government to companies have emerged since the early 1990s. Nike, for example, faced an extensive consumer boycott after the *New York times* and other media outlets reported abusive labor practices at some of its Indonesia suppliers in the early 1990s (Porter & Kramer, 2006). According to Porter & Kramer (2006), Shell Oil's decision to sink the *Brent Spar*, an obsolete oil rig, in the North Sea led to Greenpeace protests in 1995 and to international headlines. Pharmaceutical companies discovered that they were expected to respond to the AIDS pandemic in Africa even though it was far removed from their primary product lines and markets (Porter & Kramer, 2006).

According to Porter & Kramer (2006) that proponent of CSR have used 4 (four) arguments to make their case:

#### a. Moral Obligation

During the last twenty-five years, there has been an increasing expectation that business exists to serve the needs of both shareholder and society (Brooks & Dunn, 2010). The companies were established in a country. Thus, the companies should aware not only to shareholder but stakeholder which tie up with their operations. Of course, the companies have a moral obligation to stakeholder. To survival at this moment, the companies must switch the old model paradigm (shareholder only) to new model paradigm (stakeholder).

b. Sustainability

The issues of global warming have attended all of parties in the world. The global communities have focused to keep environment from destruction. Then the term of sustainability begins to emerge in academic and practical. Some of ideas about how to create a mind set for corporate sustainability, for example S<sup>2</sup>VE (Shareholder and Social Added Value with Environment restoration) approach (Grayson *et al.*, 2008)

c. License to operate

The notion of license to operate derives from the fact that every company need tacit or explicit permission from governments, communities, and numerous other stakeholder to do business (Porter & Kramer, 2006).

d. Reputation

Reputation is used by many companies to justify CSR initiatives on the grounds that they will improve the company's image, strengthen its brand, enliven morale, and even raise the value of its stock (Porter & Kramer, 2006).

These four argument is vulnerable. The first, moral obligation only become a discussion in business ethic class and never to be a solution in supporting the CSR implementation. The second, sustainability topic emerges together triple bottom line concept. How to balance between the demands of investors (profit), environment (planet), and society (people) (Grayson *et al.*, 2008). In accounting field, sustainability accounting and reporting still become a debate about being a fad or a trend (Burritt & Schaltegger, 2010). The third, license to operate is only a legal term. The matter doesn't showcases an implication of CSR. The Fourth, reputation only a cliché term which shows that the companies have a good image from the society in short term, but not to longterm.

The implication of CSR by companies must based on transparency, for example honesty in disclosing and filing financial statement regarding their environmental impact. Because the CSR field remains strongly imbued with a moral imperative (Porter & Kramer, 2006). According to Porter & Kramer (2006), business and society don't only have a interdependence relationship but they must be integrated between the strategy and the need of society. For example, the body shop sells shampoo, soap, creambath, etc. which were produced from the natural resources. The company works as teammates with the farmer. The two linkages from Porter & Kramer (2006) give a solution to integrate between a business strategy with society, namely looking inside out linkage and looking outside in linkage. The looking inside out linkage describes how to companies map social opportunities in the value chain form.

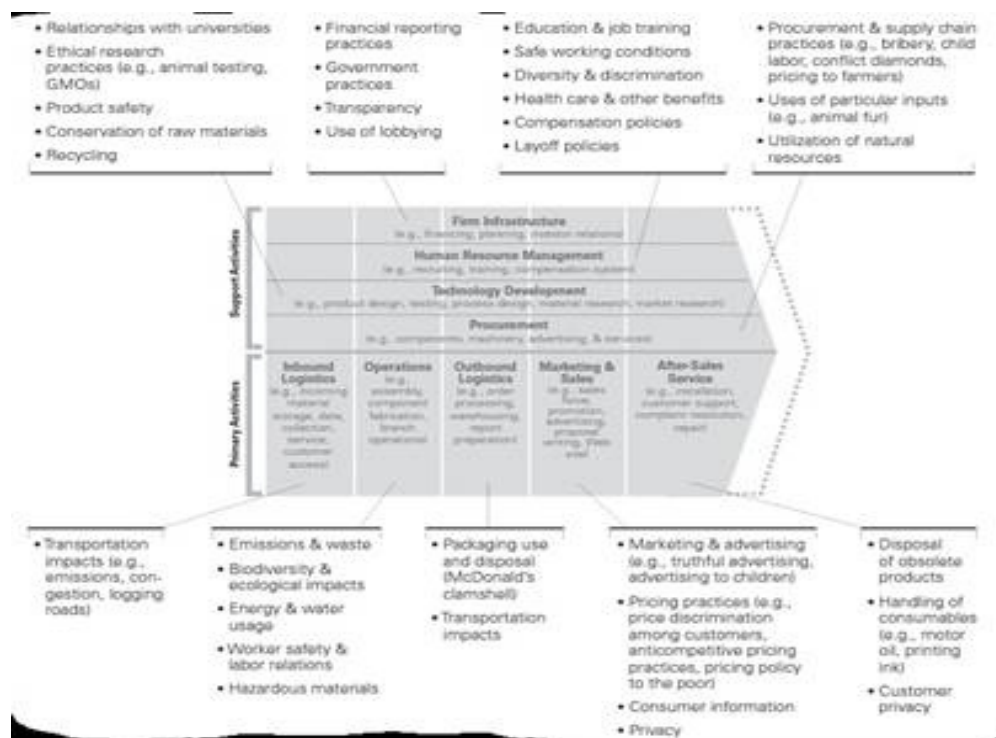


Figure 1. Looking inside out: Mapping the social impact of the value chain (Porter & Kramer, 2006)

The looking outside in linkage describes about how to companies understand of the social dimensions of their competitive context (Porter & Kramer, 2006). Porter & Kramer (2006) acknowledges that this linkage describe how to company's ability to improve productivity and execute strategy in the location. In collecting the information data to this linkage, the companies can use some indicators from Global Reporting Initiatives (GRI). The indicators of GRI can be screen with ranking the need of stakeholder accord to power, legality and urgency (Brooks & Dunn, 2010). So the companies must consider benefit-cost analysis in preparing the report. The twinrack approach can be a alternative way to collect the data. In twinrack approach, companies get the sources of information data to the both linkages.

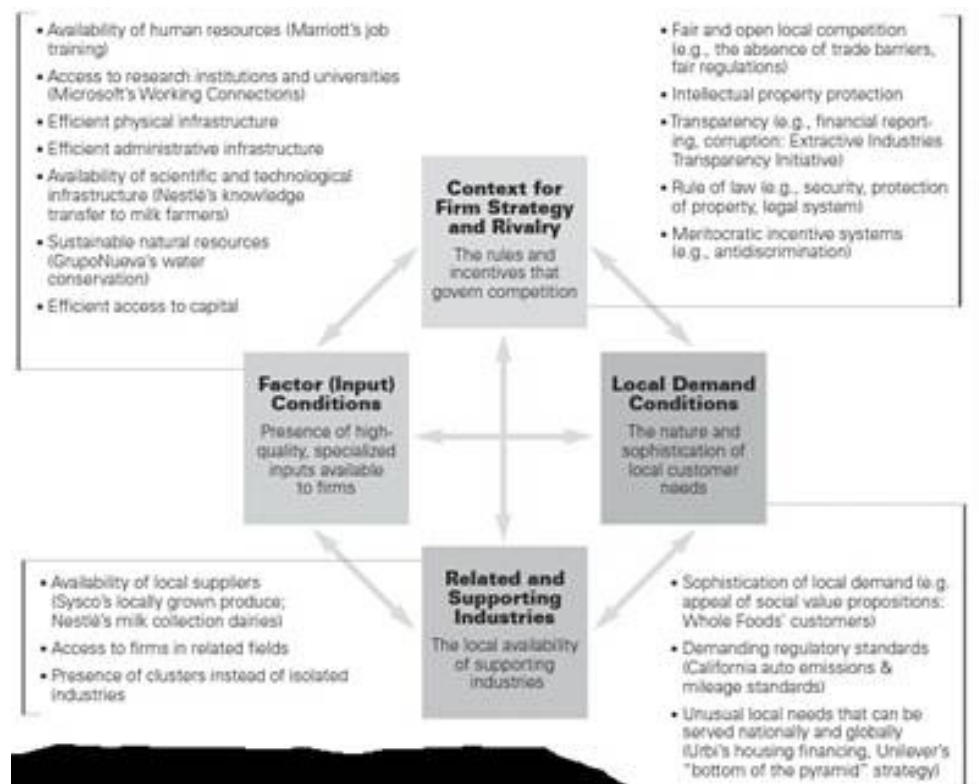


Figure 2. Looking outside in: Social influences on the competitiveness (Porter & Kramer, 2006)

In disclosing the sustainability in financial statement, companies can use some indicators of disclosure in Global Reporting Initiatives (GRI) especially G4. The government should role as the authority to do health check up on the sustainability of each companies. The body of representation from the government could do these task. So we won't get a shock about the increase of the global warming. Each companies must be examined through health check up about their sustainability annually. This notion is based on precautionary principle (Lamberton, 2005).

### 3. Conclusions

Accounting has a critical roles in keeping our earth sustainably. We propose the integrated idea to make the information system which forces the company leads their operation of business to sustainable. The companies to integrate their business strategy with the need of society. So a few of companies can lead others to follow their way. For example, toyota with hybrid car and the body shop with natural product. Thus perceiving social responsibility as building shared value rather than as damage control or as a PR (Public relation) campaign will require dramatically different thinking in business (Porter & Kramer, 2006). Porter & Kramer (2006) said that we are convinced, however, that CSR will become increasingly important to competitive success. In collecting the information data, companies could use twinrack approach. They can utilize keys performance indicators (KPI) of GRI to search the sources of information. This approach gives a new perspective about the influence of management control systems on environmental management (termed eco-control) and economic and environmental performance of organisations (Henry & Journeault, 2010 in Burritt & Schaltegger, 2010).

According to Henry & Journeault (2010) in Burritt & Schaltegger (2010) that there is four main of uses data:

1. To monitor compliance with environmental policies and regulation.
2. To motivate continuous improvement.
3. To provide data for internal decision making.
4. To provide data for external decision making.

Then each government must control the system with doing health check up about sustainability of the companies. Hopefully, GRI would prepare more harder to create a Generally Accepted Sustainability Accounting Principles (GASAP). Each companies in the world will be controlled by each government relate with the sustainability through mandatory disclosure mechanism about the environmental impact.

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